# INTERSTATE 10/JACKSON STREET INTERCHANGE PROJECT

BETWEEN MONROE STREET AND 0.4 MILES WEST OF GOLF CENTER PARKWAY, CITY OF INDIO, RIVERSIDE COUNTY, CALIFORNIA
DISTRICT 8 – RIV – 10 (PM R54.9/R56.5)
EA 08-0M910
PN 0800020208

## Initial Study with [Proposed] Negative Declaration/Environmental Assessment



**Prepared by the**
**State of California, Department of Transportation**

The environmental review, consultation, and any other actions required by applicable federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated December 23, 2016, and executed by FHWA and Caltrans.

**February 2021**

Caltrans

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# General Information About This Document

### *What's in this document:*

The California Department of Transportation (Department), as assigned by the Federal Highway Administration (FHWA), has prepared this Initial Study/Environmental Assessment (IS/EA) prepared, which examines the potential environmental impacts of the alternatives being considered for the proposed project located within the City of Indio, in Riverside County, California. The Department is the lead agency under the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). The document describes why the project is being proposed, what alternatives we have considered for the project, how the existing environment could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization and/or mitigation measures.

### *What you should do:*

- Please read this IS/EA.
- Please call (760) 391-4017 to make an appointment to review a copy of this document and the related technical studies at:
  City of Indio City Hall
  100 Civic Center Mall
  Indio, CA 92201
- An electronic copy (PDF file format) of the IS/EA can be obtained from the City of Indio's website as follows: http://www.indio.org/jacksoninterchange.
- An electronic copy (PDF file format) of the IS/EA can be obtained from the County of Riverside's website as follows: https://rcprojects.org/jackson.
- Attend the virtual public hearing, scheduled for March 10, 2021. Details for the virtual public hearing will be provided on the City of Indio's website (http://www.indio.org/jacksoninterchange) prior to the meeting date, and will include a webinar link with instructions, a call-in number, and Spanish translation services.
- We welcome your comments. If you have any concerns regarding the proposed project, please attend the public hearing and/or send your written comments to the Department by the deadline.
- Submit comments via postal mail to:
  Renetta Cloud
  Senior Environmental Planner
  California Department of Transportation
  464 W. 4th Street, MS-823
  San Bernardino, CA 92401-1400
- Submit comments via email to: Interstate10_Jackson_Int@dot.ca.gov
- Please be sure to submit comments by the deadline: March 26, 2021.

### *What happens next:*

After comments are received from the public and reviewing agencies, the Department, as assigned by FHWA, may: (1) give environmental approval to the proposed project, (2) do additional environmental studies, or (3) abandon the project. If the project is given environmental approval and funding is obtained, the Department could design and construct all or part of the project.

### *Alternative Formats:*

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Terri Kasinga, Chief, Public and Media Affairs, 464 W. 4th Street, 6th floor, San Bernardino, CA 92401-1400; (909) 383- 4646; or use the California Relay Service 1-800-735-2929 (TTY to Voice), 1-800-735-2922 (Voice to TTY), 1-800- 855-3000 (Spanish TTY to Voice and Voice to TTY), 1-800-854-7784 (Spanish and English Speech to Speech), or 711.

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SCH # _____
08-RIV-10-PM R54.9/R56.5
EA 08-0M910
PN 0800020208

Interchange modifications at Interstate 10 (I-10) and Jackson Street, between Monroe Street and 0.4 miles west of Golf Center Parkway,
located at Post Mile [PM] Revised (R) 54.9 to PM R56.5 on I-10
located in the City of Indio, County of Riverside, California

# Initial Study with [Proposed] Negative Declaration / Environmental Assessment

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 USC 4332(2)(C), 49 USC 303, and/or 23 USC 138

THE STATE OF CALIFORNIA
Department of Transportation

2/11/2021
Date of Approval

David Bricker
Deputy District Director
District 8 Division of Environmental Planning
California Department of Transportation
NEPA and CEQA Lead Agency

The following people may be contacted for additional information concerning this project:

Renetta Cloud
Senior Environmental Planner
California Department of Transportation
464 W. 4th Street, MS-823
San Bernardino, CA 92401-1400

Jan Bulinski
Senior Transportation Planner
Riverside County Transportation Department
3525 14th Street
Riverside, CA 92501

Eric Weck
Principal Civil Engineer
City of Indio
Public Works Department
83101 Avenue 45
Indio, CA 92201

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SCH:_____

# PROPOSED NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

## *Project Description*

The City of Indio (City), in cooperation with the California Department of Transportation (Department) and the County of Riverside (County), proposes to improve the operational performance of the existing Interstate 10 (I-10)/Jackson Street Interchange within the City limits. The I-10/Jackson Street interchange is located on I-10 between Monroe Street and Golf Center Parkway. The project limits extend from approximately Post Mile (PM) R54.9 to PM R56.5 along I-10 and from Kenner Avenue (South of I-10) to Atlantic Avenue (North of I-10) along Jackson Street.

## *Determination*

This proposed Negative Declaration (ND) is included to give notice to interested agencies and the public that it is the Department's intent to adopt an ND for this proposed project. This does not mean that the Department's decision regarding the project is final. This ND is subject to change based on comments received by interested agencies and the public.

The Department has prepared an Initial Study for this project and, pending public review, expects to determine from this study that the project would not have a significant effect on the environment for the following reasons:

- The project would have no effect on cultural resources, mineral resources, tribal cultural resources, and wildfire.

In addition, the project would have less than significant effects to aesthetics, agriculture and forest resources, air quality, greenhouse gases, biological resources, cultural resources, geology and soils, paleontological resources, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, public services, recreation, transportation, and utilities and system services.

DRAFT

_____ _____

David Bricker
Deputy District Director
District 8 Division of Environmental Planning
California Department of Transportation
CEQA Lead Agency

Date

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# Chapter 1 Proposed Project

## 1.1 NEPA Assignment

California participated in the "Surface Transportation Project Delivery Pilot Program" (Pilot Program) pursuant to 23 USC 327, for more than five years, beginning July 1, 2007, and ending September 30, 2012. MAP-21 (P.L. 112-141), signed by President Obama on July 6, 2012, amended 23 USC 327 to establish a permanent Surface Transportation Project Delivery Program. As a result, the Department entered into a Memorandum of Understanding pursuant to 23 USC 327 (NEPA Assignment MOU) with FHWA. The NEPA Assignment MOU became effective October 1, 2012, and was renewed on December 23, 2016, for a term of five years. In summary, the Department continues to assume FHWA responsibilities under NEPA and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes. With NEPA Assignment, FHWA assigned and the Department assumed all of the United States Department of Transportation (USDOT) Secretary's responsibilities under NEPA. This assignment includes projects on the State Highway System and Local Assistance Projects off of the State Highway System within the State of California, except for certain categorical exclusions that FHWA assigned to the Department under the 23 USC 326 CE Assignment MOU, projects excluded by definition, and specific project exclusions.

## 1.2 Introduction

The California Department of Transportation (Department), as assigned by FHWA, is the lead agency under NEPA; it is also the lead agency under the California Environmental Quality Act (CEQA). The City of Indio (City), in cooperation with the Department and the County of Riverside (County), proposes to improve the operational performance of the existing Interstate 10 (I-10)/Jackson Street Interchange within the City limits. The I-10/Jackson Street interchange is located on I-10 between Monroe Street and Golf Center Parkway. The project limits extend from approximately Post Mile (PM) Revised (R) 54.9 to PM R56.5 along I-10 and from Kenner Avenue (South of I-10) to Atlantic Avenue (North of I-10) along Jackson Street. The project site is centrally located within the City of Indio at the crossroads of I-10 and Jackson Street, and the Coachella Valley Stormwater Channel (CVSC), in Riverside County, California. Refer to Figure 1-1 (Regional Vicinity) and Figure 1-2 (Project Location).

The current I-10/Jackson interchange configuration is a diamond interchange, with signal control at the ramp termini. The project would reconstruct and widen Jackson Street at I-10, including the existing on- and off-ramps. The interchange is a major access point for existing residential and retail sites. The project is included in the Southern California Association of Governments' Final 2016 Regional Transportation Plan/Sustainable Communities Strategy and the Final 2019 Federal Transportation Improvement Program with the Project ID of RIV071252.

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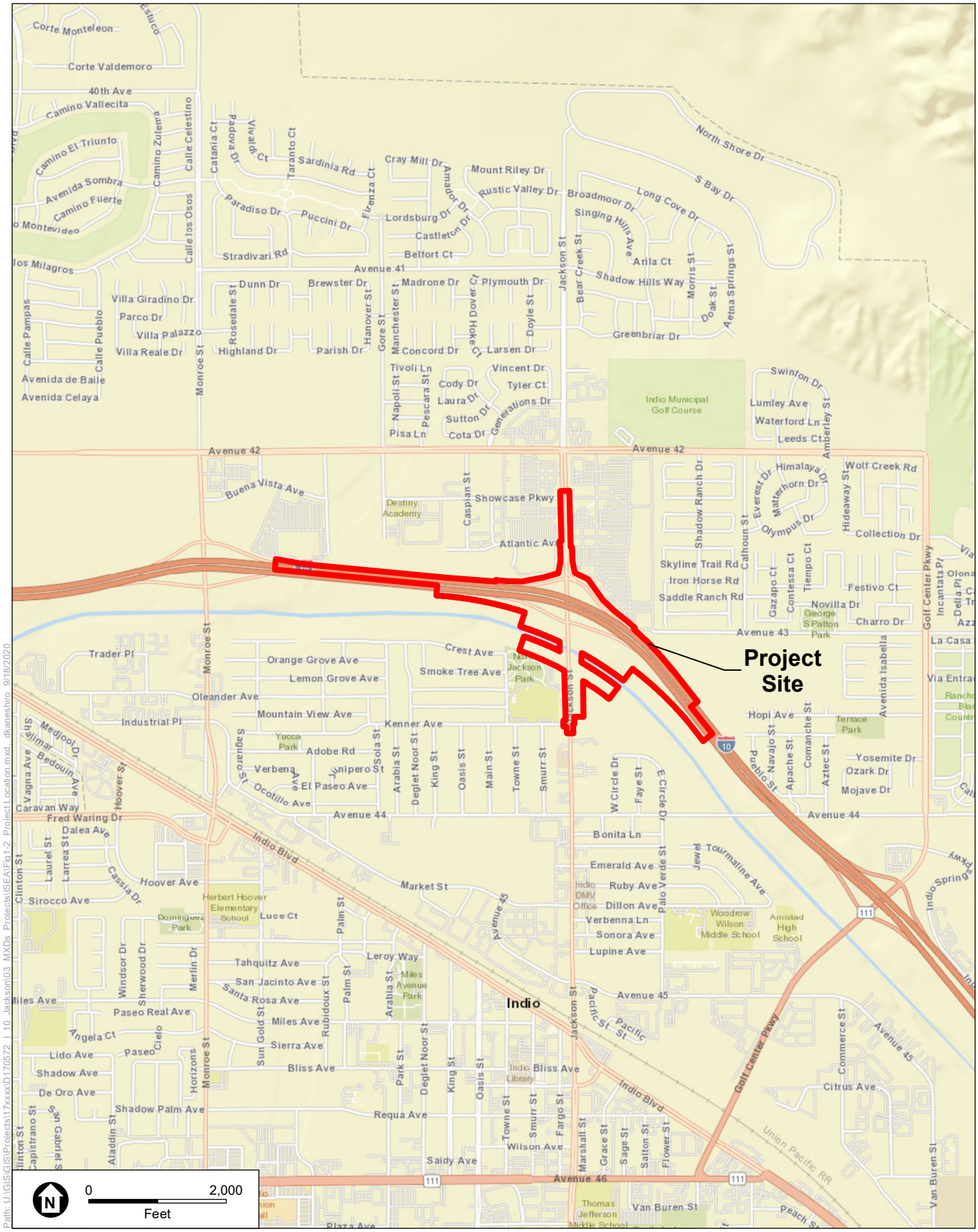



SOURCE: ESRI StreetMap North America.

I-10 / Jackson Street Interchange Project

**Figure 1-1**
Regional Vicinity

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SOURCE: ESRI StreetMap North America.

I-10 / Jackson Street Interchange Project
DISTRICT 8 – RIV – 10 (PM R54.9/R56.5)

**Figure 1-2**
Project Location

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## 1.2.1 Existing Facility

### 1.2.1.1 Interstate 10

I-10 is a major, east-west transportation route that connects the City of Indio to Los Angeles county, to the west, and the California/Arizona state border, to the east. The route is functionally classified as an "Urbanized Freeway" and is a part of the "State Freeway and Express" (F&E) System. The segment of I-10 from State Route 60 (SR-60) to the California/Arizona State Line is included in the State Interregional Road System (IRRS) which further classifies the route as a "High Emphasis" and "Gateway" route. In addition, the length of I-10 within the County of Riverside is included in the National Highway System (NHS), the Rural and Single Interstate Routing System (RSIRS), and the Strategic Highway Corridor Network (STRAHNET); and is a Surface Transportation Assistance Act (STAA) route for use by oversized trucks. Within the project limits, I-10 is six lanes in total, with three mixed-flow lanes in each direction; a metal-beam center divider, and does not have high-occupancy vehicle (HOV) lanes.

### 1.2.1.2 Jackson Street

Jackson Street is a north-south arterial in the City of Indio with an existing posted speed limit of 40 miles per hour (mph) south of the interchange, and 45 mph north of the interchange. Within the project area, it is a two-lane roadway with curbs, a striped or raised median, and a sidewalk adjacent to the southbound side of the road. The Jackson Street Overcrossing PM R55.7, Bridge Number 56-0612) is a two-span pre-stressed concrete box girder bridge constructed in 1972. It is approximately 264 feet long, 47 feet wide, and spans six lanes of traffic over I-10. Immediately south of the interchange, Jackson Street crosses over the Whitewater River via the Whitewater River Bridge (Bridge Number 56C-0084). This bridge is a five-span reinforced concrete box girder bridge. It is approximately 553 feet long, and 47 feet wide.

### 1.2.1.3 Coachella Valley Stormwater Channel

The CVSC, also known as Whitewater River, is a 50-mile storm channel that runs from the Whitewater area north of Palm Springs to the Salton Sea channeling waters from surrounding mountain areas. The trapezoidal, earth channel is under the Coachella Valley Water District (CVWD) jurisdiction. Along the southern bank, which is within the limits of the project, the Coachella Valley Association of Governments (CVAG) is currently in the final design phase of a planned 50-mile-long multi-use trail, known as the Coachella Valley Link, or CV Link, that will connect cities within the Coachella Valley for use of Low-Speed Electric Vehicles (LSEV), bicycles, and pedestrian users. CV Link will allow for egress and ingress to Jackson Street.

In addition, full closures of CV Link are not anticipated during construction of the I-10/Jackson Street Interchange Improvement Project. Temporary detours for CV Link users will be provided to maintain mobility. The bridge and CV Link construction activities are integrated, and as a result, CV Link realignment is anticipated to be accomplished over 18 to 24 months.

## 1.2.2 Purpose and Need

### 1.2.2.1 Project Purpose

The purpose of this project is to:

- Increase capacity and provide operational improvements at the I-10/Jackson Street interchange directly associated with the forecast travel demand for the 2045 design year within the City of Indio;
- Accommodate multimodal travel that integrates with the City's General Plan, regional plans, and preserves the values of the area;
- Improve existing interchange geometry.

The above objectives will be evaluated within the project limits while minimizing right-of-way, environmental, and economic impacts.

#### 1.2.2.2 Project Need

The project addresses the following needs:

- Forecasted traffic volumes, in conjunction with the current capacity of the existing interchange, are expected to result in the interchange ramps and associated intersections operating at unacceptable levels of service by the year 2045;
- Gaps in the pedestrian and bicycle infrastructure impede the connection between communities and businesses across the interchange;
- The existing ramp alignments, ramp intersections, and Jackson Street contain existing nonstandard geometric features.

The accelerated growth and development taking place in the City of Indio in the vicinity of the I-10/Jackson Street interchange are expected to generate traffic volumes that will exceed the capacity of the existing interchange in the near future. The I-10/Jackson Street interchange provides a key connection between the city center to the south and the retail centers to the north. The interchange is used for long-distance commutes, regional trips, as well as local trips. At the current rate of growth, the traffic volumes on the I-10 freeway at the Jackson Street interchange are expected to double from existing year (2018) to design year (2045) while traffic volumes are anticipated to increase by almost 50 percent on both Jackson Street and I-10/Jackson Street ramps in that same period. Without the proposed project, the operation of the interchange will continue to deteriorate to unacceptable levels of service, resulting in increased congestion, delays, energy consumption, and air pollution.

Pedestrian and bicycle access across the freeway and the Whitewater River (i.e., CVSC) are currently limited to the existing infrastructure of the Jackson Street overcrossing bridge and the Jackson Street over Whitewater River bridge. Both bridges have an existing nonstandard 5-foot sidewalk width in the southbound direction (west side Jackson Street) and no sidewalk in the northbound direction (east side of Jackson Street). Both bridges have approximately a 2-foot shoulder in both directions. The project will construct standard 6-foot sidewalks and 10-foot shoulder widths in both directions on both bridges to promote and facilitate: (1) connectivity between communities and businesses and (2) pedestrian, bicycle and low-speed electric vehicle (LSEV) use.

##### *Roadway Deficiencies*

The Jackson Street at I-10 interchange was constructed in 1972, and several geometric and cross-sectional deficiencies exist within the interchange area. These deficiencies include the following:

- Insufficient shoulder widths on Jackson Street and entrance and exit ramps.
- Insufficient pedestrian sidewalk widths and multi-modal facilities (no bike or low-speed electric vehicle [LSEV], alternative vehicle use facilities).
- Existing bridge structures require seismic retrofit to meet current standards and will be over 50 years old by the project's estimated opening year (2025).
- The existing CVSC bridge foundations are susceptible to scour and require extensive measures to protect the existing foundations.
- Existing bridge structures do not include protective screening over I-10.

### *Social Demands and Economic Development*

According to the U.S. Census, Indio had an estimated population of 88,000 in 2018, and was the 10th fastest growing city in California in between 2010 and 2018. The City is expected to continue to experience significant growth in the future. According to the Southern California Association of Governments (SCAG), Indio is expected to reach a population of approximately 123,000 by 2040, an increase of approximately 39.2 percent (City of Indio, 2018). Overall, the County's population is expected to increase from its current 2.2 million people to approximately 3.2 million in 2040, an increase of almost 50 percent.

The project site is generally surrounded by areas with a General Plan land use designation of "Mixed Use Development Agreement" and "Community Commercial" within the northwestern and northeastern quadrants of the interchange, respectively. Areas to the south of I-10 are designated "Open Space" by the General Plan. Other designations surrounding the southern portion of the project site include Business Park, Commercial office, and Public. According to the City's Zoning Map, I-10 and Jackson Street are roads/rights-of-way. The site is surrounded by areas with a zoning designation of Mixed Use Development Agreement, Community Commercial, Whitewater Storm Channel, Residential–Low, Neighborhood Commercial, and Public. (Figure 2-1 shows the General Plan land use for the project area). Please see Section 2.1.1 (Land Use) for more detailed discussion regarding existing and planned land use in the project area and vicinity. Figure 2-2 and Table 2-1 of Section 2.1.1, Land Use, shows and describes, respectively recently constructed and planned development and infrastructure projects within the project vicinity.

### *Modal Interrelationships and System Linkages*

I-10 provides regional access in the project area as a four-lane freeway facility, traversing the state of California in a west-east orientation. I-10 originates in Santa Monica, California and extends eastward to its terminus in Jacksonville, Florida. As an interstate facility, I-10 serves as a major corridor for goods movement through the project area and areas west and east via the freeway.

The I-10/Jackson Street interchange is a connecting link in the local and regional transportation system. In the immediate vicinity of the interchange, Monroe Street provides access to existing commercial, industrial, and residential areas north and south of the interchange. Regionally, and south of the existing interchange, Monroe Street provides access to the City of La Quinta as well as a direct connection to State Route 111, which provides access to communities east, west, and south of the I-10/Monroe Street interchange.

The project would also include facilities intended to promote connectivity for system linkages related to pedestrian and bicycle movement. The project includes bicycle lanes and sidewalks and would accommodate LSEVs along Monroe Street through the interchange. It also includes a future alignment of the planned Coachella Valley Link (CV Link) project. CV Link is a 50-mile multi-modal transportation pathway proposed by the Coachella Valley Association of Governments (CVAG) that would extend from the City of Palm Springs on the west to the City of Coachella on the east. The route is generally proposed along the levees of the CVSC and on local streets. CV Link is designed to accommodate the widest possible range of users, including pedestrians, bicyclists, LSEVs, and mobility device users (wheelchairs and electric scooters). LSEVs include golf carts and neighborhood electric vehicles. The project would accommodate a segment of the CV Link project along the south levee of the CVSC within the project limits. Access points to the planned future CV Link from Monroe Street would be consistent with the access point locations identified in the CV Link Conceptual Master Plan. The City operates various bus routes through SunLine Transit, with Route 80 operating through the Monroe Street interchange. Route 80 has two stops near the project: Stop 19, on Monroe Street at Oleander Avenue, and Stop 20, on Showcase Parkway at Monroe Street.

The I-10/Jackson Street Interchange Improvement Project is approximately two miles east of the Bermuda Dunes Airport. The privately owned airport is situated in the Coachella Valley and is a major point of general aviation access to the surrounding desert communities of eastern Riverside County. The airport caters to corporate-type, twin engine propeller aircraft and small business jets.

No future plans for rail development are planned in the project vicinity.

### *Air Quality Improvements*

The project includes bicycle lanes and sidewalks and would accommodate LSEVs along Monroe Street through the interchange (refer to Section 1.4 below for detail regarding design features of the Build Alternatives).

### *Independent Utility and Logical Termini*

FHWA regulations (23 Code of Federal Regulations [CFR] 771.111 [f]) require that the action evaluated:

- Connect logical termini and be of sufficient length to address environmental matters on a broad scope.
- Have independent utility or independent significance (be usable and require a reasonable expenditure even if no additional transportation improvements in the area are made).
- Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

Logical termini should encompass an entire project. Cutting a larger project into smaller projects may be considered "improper segmentation." A project must have independent utility; that is, a project must be able to function on its own, without further improvements.

This Initial Study/Environmental Assessment assesses the project area, which extends from approximately PM R54.9 to PM R56.5 along I-10 and from Kenner Avenue (South of I-10) to Atlantic Avenue (North of I-10) along Jackson Street. The study corridor extends north to south along Jackson Street from Avenue 42 to Avenue 44. Avenue 42 is approximately 0.3 miles north of the I-10/Jackson westbound ramp intersection and Avenue 44 is approximately 0.5 miles south of the I-10/Jackson eastbound ramp intersection. The study area extends west to east from Monroe Street, approximately 1 mile west of the interchange, to I-10/Golf Center Parkway, approximately 1.2 miles to the east. Included in the study area are the I-10 overcrossing and Coachella Valley Stormwater Channel Bridge structures.

The project is of sufficient length, with project termini logically placed, to allow environmental issues to be addressed on a broad scope. The project would save potential interruptions in traffic movement along the I-10 and its facilities within the study area, without any additional transportation improvements being made in the area. As such, the project is considered a project with independent utility.

## 1.3 Project Description

The City, in cooperation with the Department and the County, proposes to improve the operational performance of the existing I-10/Jackson Street Interchange within the City limits. The I-10/Jackson Street interchange is located on I-10 between Monroe Street and Golf Center Parkway. The project limits extend from approximately PM R54.9 to PM R56.5 along I-10 and from Kenner Avenue (South of I-10) to Atlantic Avenue (North of I-10) along Jackson Street. The project site is centrally located within the city of Indio at the crossroads of I-10 and Jackson Street, in Riverside County, California.

The current I-10/Jackson interchange configuration is a diamond interchange, with signal control at the ramp termini. The project would reconstruct and widen Jackson Street at I-10, including the existing on- and off-ramps. The interchange is a major access point for existing residential and retail sites.

This section describes the proposed action and the project alternatives that were developed to meet the identified purpose and need of the project, while avoiding or minimizing environmental impacts. The alternatives are Alternative 1, No-Build Alternative; Alternative 2, Compact Diamond Interchange; and Alternative 4, Diverging Diamond Interchange.

## 1.4 Alternatives

### 1.4.1 Project Alternatives

Various alternatives were previously evaluated that considered traffic performance, design, environmental impacts, right-of-way, and cost; however, only two viable Build Alternatives and a No-Build Alternative were identified for this project and would be further evaluated during the Project Approval and Environmental Document (PA/ED) phase. Build Alternative 2 is a Compact Diamond (Type L-1) and Build Alternative 4 is a Diverging Diamond Interchange (DDI) also known as Double Crossover Diamond interchange.

- Alternative 1: No-Build (refer to Figure 1-3, No Build Alternative)
- Alternative 2: Compact Diamond Interchange (refer to Figure 1-4, Build Alternative 2)
- Alternative 4: Diverging Diamond Interchange (refer to Figure 1-5, Build Alternative 4)

Additionally, Figure 1-6, Figure 1-7 follow, which are cross-sections of Jackson Street as it relates to the two respective Build Alternatives. Figure 1-6 pertains to Alternative 2, and Figure 1-7 pertains to Alternative 4.

## 1.5 Comparison of Alternatives

### 1.5.1 Common Design Features of the Build Alternatives

This project contains a number of standardized project measures which are employed on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed project. These measures are addressed in more detail in the Environmental Consequences sections found in Chapter 2.

The two build alternatives have the following design elements in common:

- Include construction of the Whitewater River Bridge Structure to accommodate two 12-foot-wide through lanes, 10-foot shoulder and 6-foot-wide sidewalk on each direction.
- Construction of two new access ramps to the CV Link recreational facility
- Widening of existing Jackson Street between Kenner Avenue and Atlantic Avenue to accommodate two 12-foot-wide through lanes in the southbound direction.
- Realignment and widening of the I-10 Eastbound (EB) and I-10 Westbound (WB) on- and off-ramps.
- Construction of 600-foot WB auxiliary lane preceding Jackson Street WB off-ramp.
- Installation of planned ramp meter on the I-10 WB and EB on-ramps.

## 1.5.2 Design Exceptions

Table 1-1 summarizes the nonstandard design features that would be constructed under the build alternatives.

**Table 1-1 Design Exceptions Common to Build Alternatives**

| Design Standard | Justification for Nonstandard Feature (Exception) |
|---|---|
| 302.1 – Shoulder Width | The inner shoulders along I-10 (six-lane freeway facility) are an existing nonstandard 5 feet in width. The HDM calls for shoulder widths to be 10 feet. The project purpose and need statement excludes improvements to I-10 mainline freeway facility. The existing eastbound I-10 and westbound I-10 inside shoulders do not meet the HDM standard of 10 feet for a freeway with six lanes or more. Widening the shoulders solely within the project limits would create discontinuity and would not meet drivers' expectation for the inside shoulders that are located to the east and west of the project limits. The project purpose and need is intended to provide improvements for a reconstructed interchange. |
| 304.1 – Side Slope Standard | Attaining standard 4:1 fill slope at this location (westbound off-ramp) would require additional right-of way to flatten slope and would impact businesses and future land slated for community development. A concrete barrier is proposed to mitigate the nonstandard fill slope of 2:1 and retains the existing drainage swale within the existing right-of-way. |

## 1.5.3 Unique Features of the Build Alternatives

### 1.5.3.1 Alternative 1 - No-Build (No-Action)

Under this alternative, no reconstruction or improvements would be made to the existing I-10/Jackson Street interchange other than routine maintenance.

### 1.5.3.2 Alternative 2 – Compact Diamond Interchange

Under this build alternative, the existing I-10/Jackson Street interchange would maintain the compact diamond configuration and reconstruct Jackson Street, I-10 bridge overcrossing, Whitewater River Bridge, and the I-10 on- and off-ramps. Jackson Street at the I-10 bridge crossing would be reconstructed from one lane to two lanes in each direction, and include two left-turn lanes at each ramp intersection for access to eastbound and westbound I-10 on-ramps. The existing Jackson Street bridge at the Whitewater River Bridge would be widened to increase the number of through lanes from one lane to two lanes in each direction. This alternative would include reconstruction and restriping of Jackson Street to transition the additional travel lanes to the existing lane configurations north and south of the interchange. The I-10 westbound (WB) and eastbound (EB) on-ramps would be widened to two lanes and transition to a single lane merging to I-10. Interchange off-ramps would be widened, realigned and restriped to accommodate additional turn lanes to Jackson Street. Auxiliary lanes would be constructed at the I-10 WB and EB ramps to enhance merging and diverging traffic to I-10.

Table 1-2 describes the nonstandard design features that are unique to Build Alternative 2.




SOURCE: Riverside County GIS

I-10 / Jackson Street Interchange Project
DISTRICT 8 – RIV – 10 (PM R54.9/R56.5)

**Figure 1-3**
Alternative 1 (No Build)

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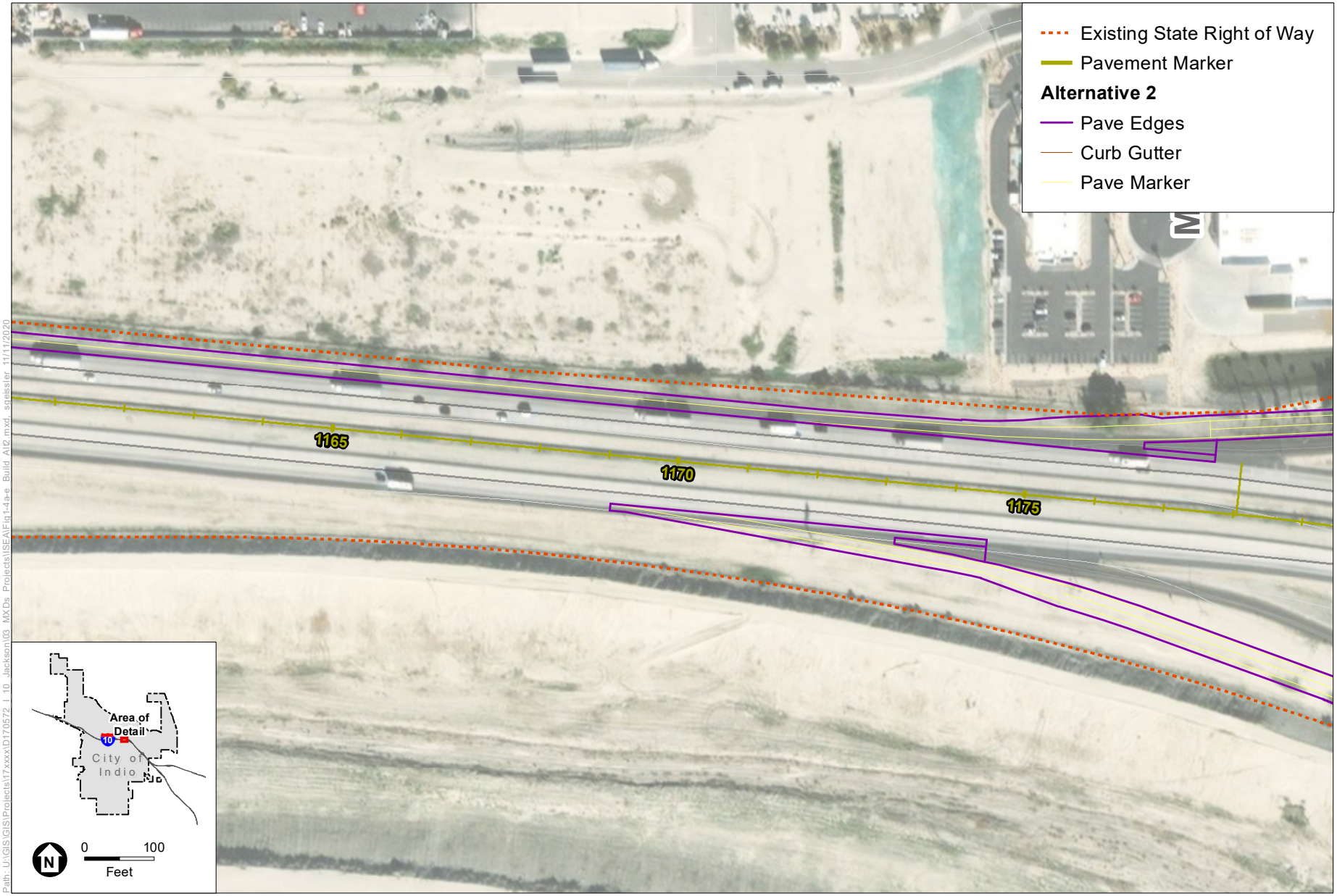



SOURCE: Riverside County GIS

I-10 / Jackson Street Interchange Project

**Figure 1-4a**
Build Alternative 2

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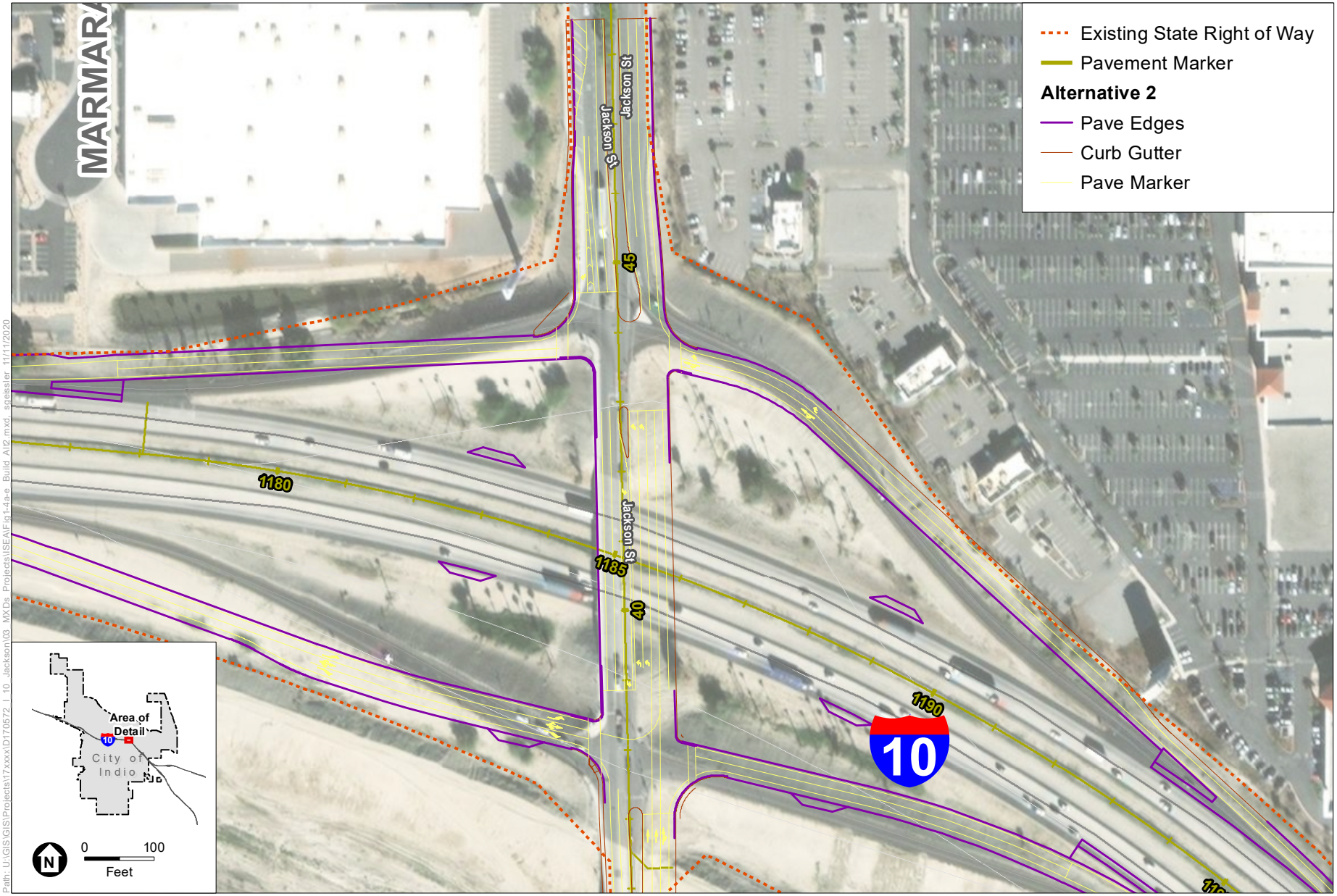



SOURCE: Riverside County GIS

I-10 / Jackson Street Interchange Project

**Figure 1-4b**
Build Alternative 2

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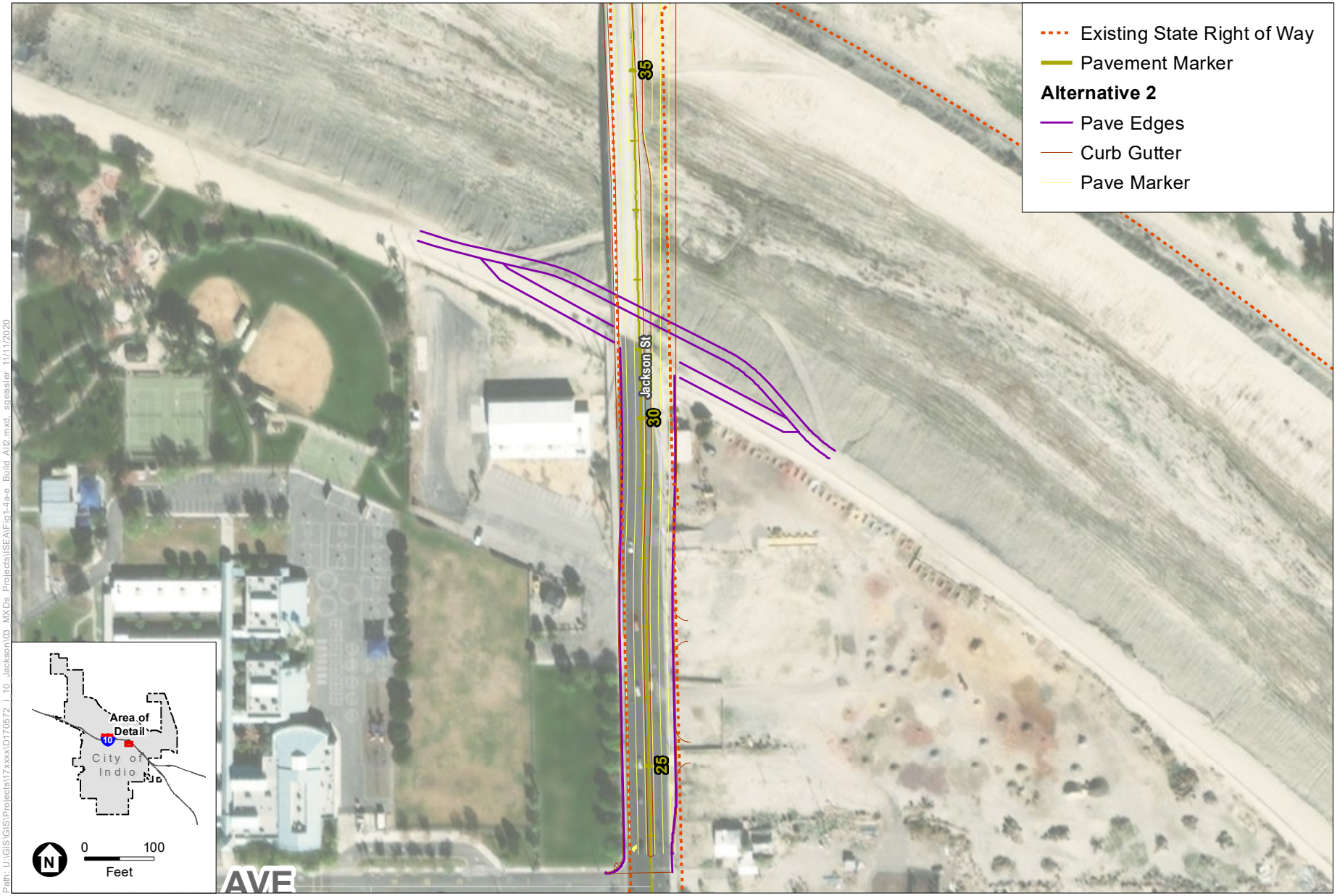



SOURCE: Riverside County GIS

I-10 / Jackson Street Interchange Project

**Figure 1-4c**
Build Alternative 2

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SOURCE: Riverside County GIS

I-10 / Jackson Street Interchange Project

**Figure 1-4d**
Build Alternative 2

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SOURCE: Riverside County GIS

I-10 / Jackson Street Interchange Project

**Figure 1-4e**
Build Alternative 2

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SOURCE: Riverside County GIS

I-10 / Jackson Street Interchange Project

**Figure 1-5a**
Build Alternative 4

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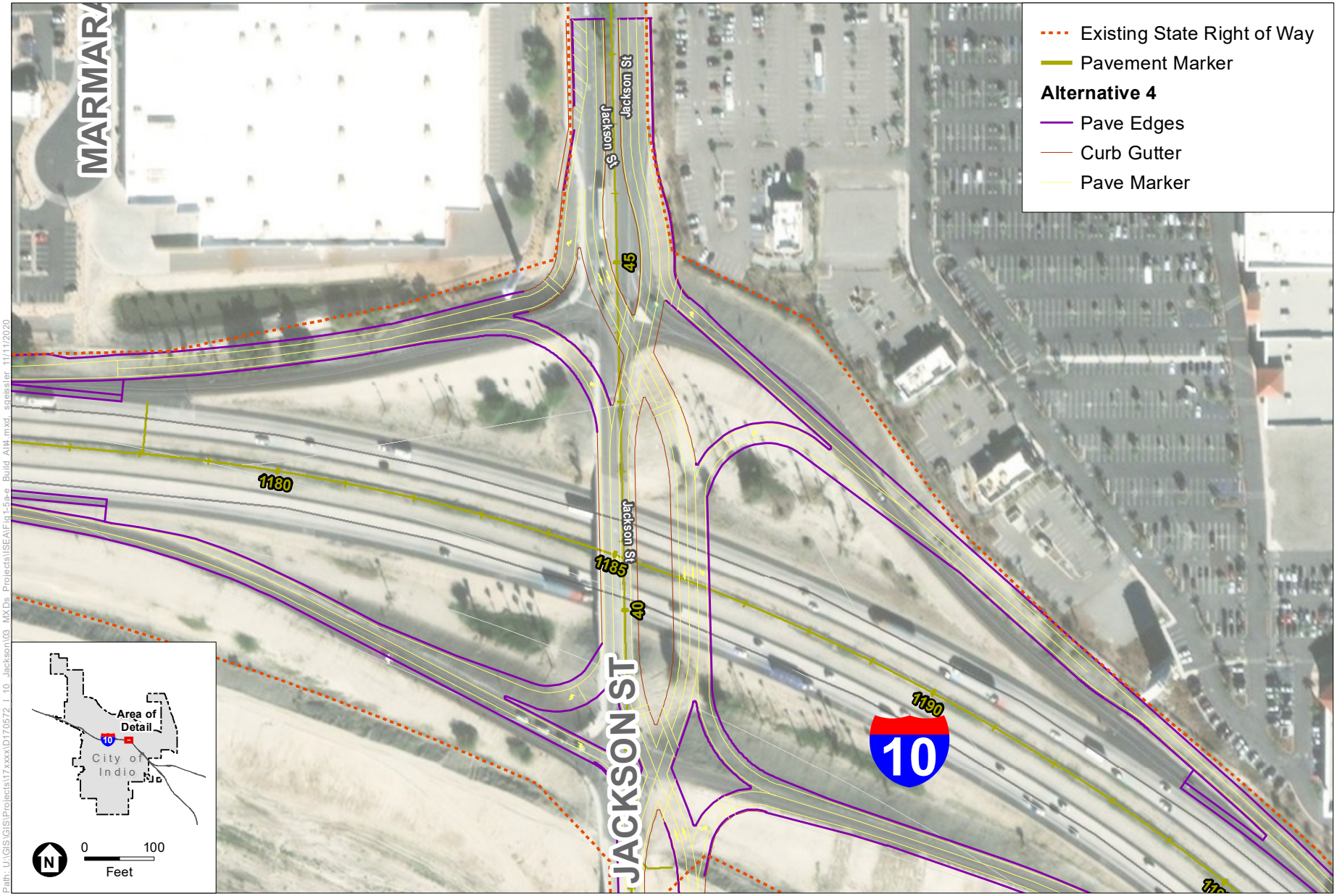



SOURCE: Riverside County GIS

I-10 / Jackson Street Interchange Project

**Figure 1-5b**
Build Alternative 4

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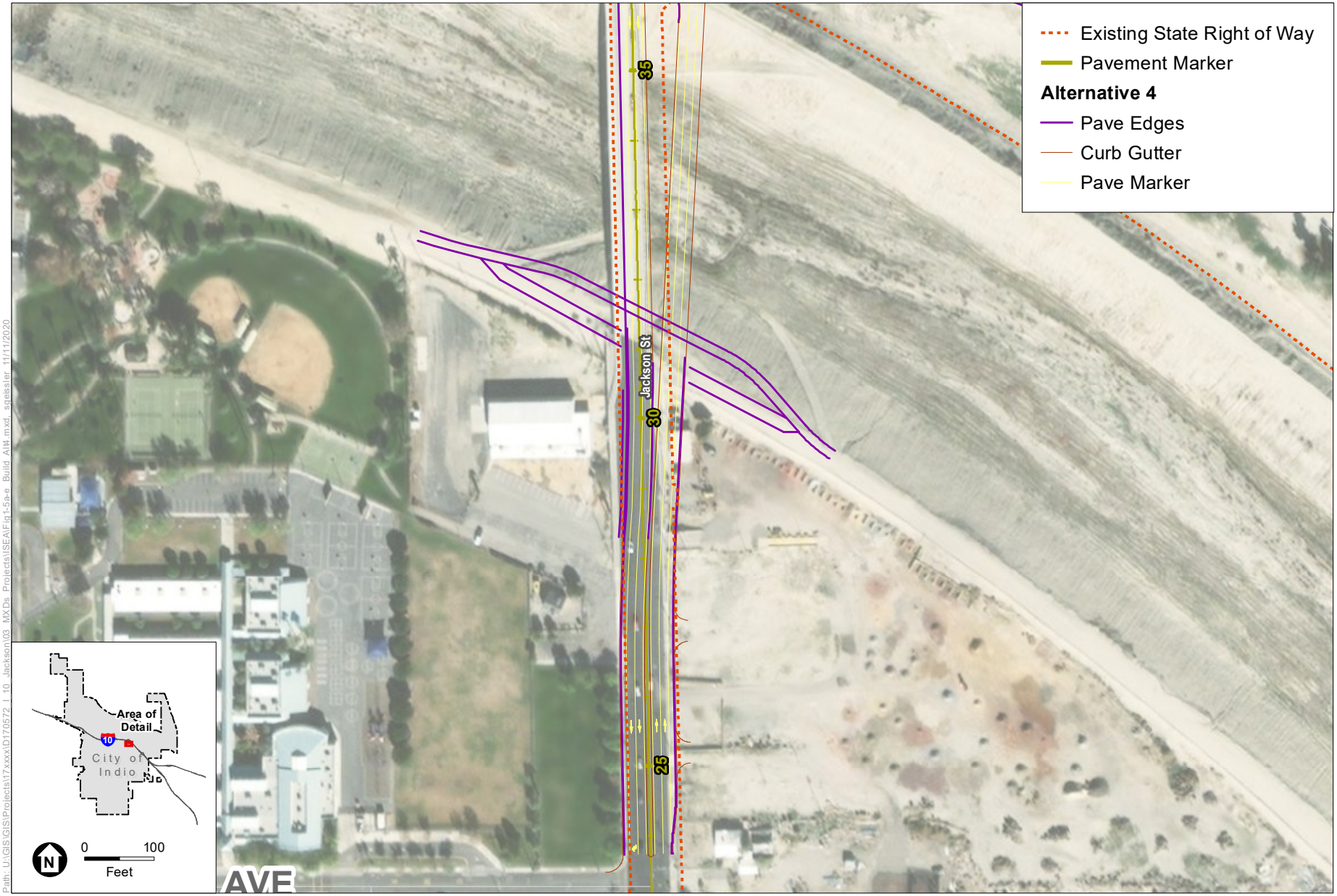



SOURCE: Riverside County GIS

I-10 / Jackson Street Interchange Project

**Figure 1-5c**
Build Alternative 4

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SOURCE: Riverside County GIS

I-10 / Jackson Street Interchange Project

**Figure 1-5d**
Build Alternative 4

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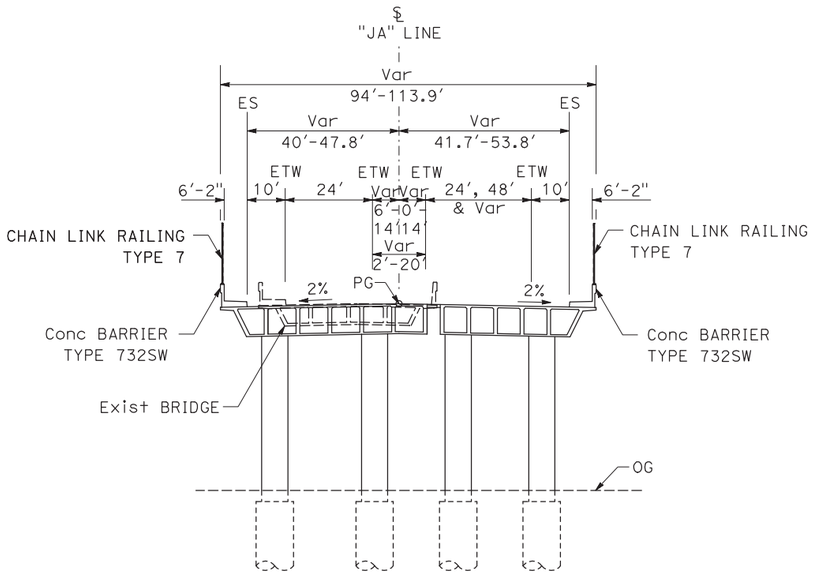



SOURCE: Riverside County GIS

I-10 / Jackson Street Interchange Project

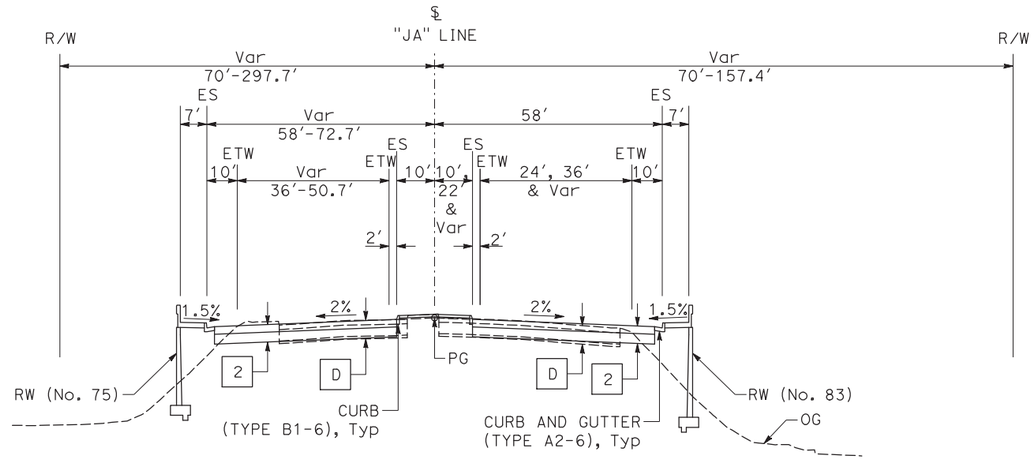
**Figure 1-5e**
Build Alternative 4

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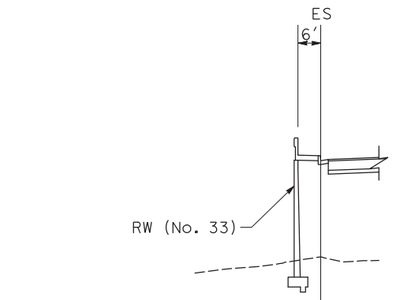

**WHITEWATER RIVER BRIDGE**

Sta 35+43 TO Sta 40+95

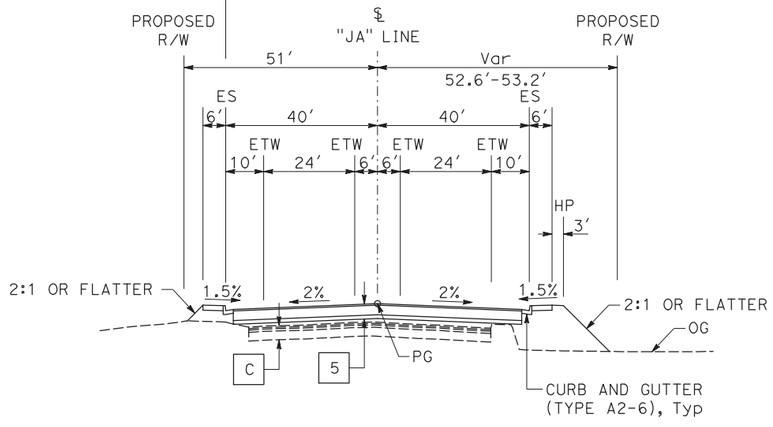



**JACKSON St**

Sta 48+89 TO Sta 52+79

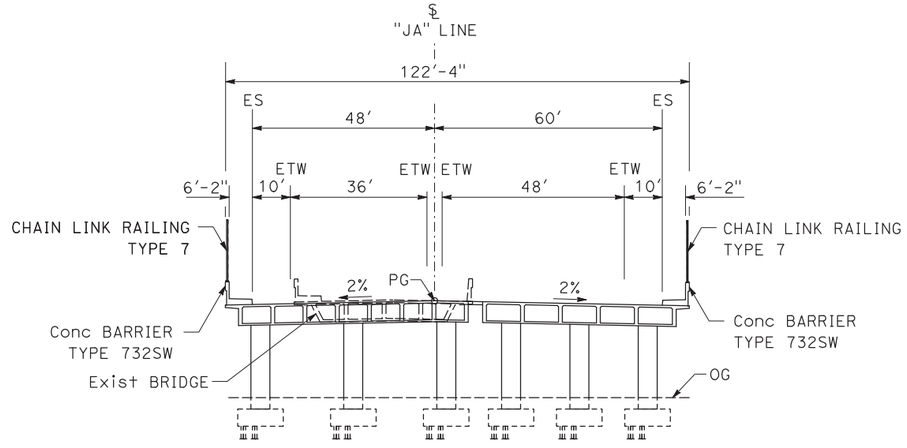



Sta 32+05 TO Sta 35+43




**JACKSON St**

Sta 28+00 TO Sta 35+43




**JACKSON St OC**

Sta 43+64 TO Sta 46+28

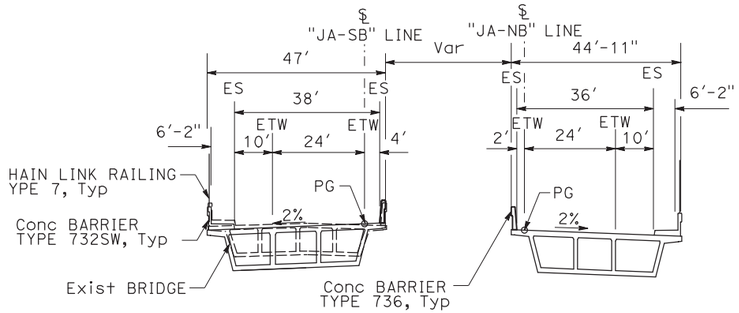
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SOURCE: Caltrans, 2020



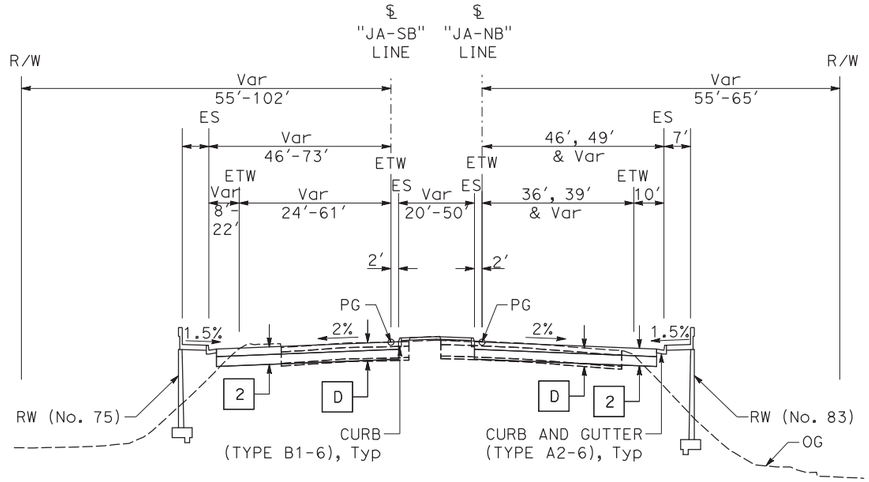
**Figure 1-6**
Typical Cross Section, Build Alternative 2

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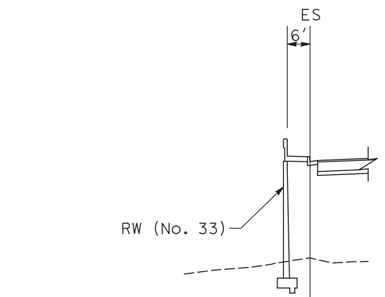

**WHITEWATER RIVER BRIDGE**

"JA-SB" Sta 25+64 TO Sta 31+13

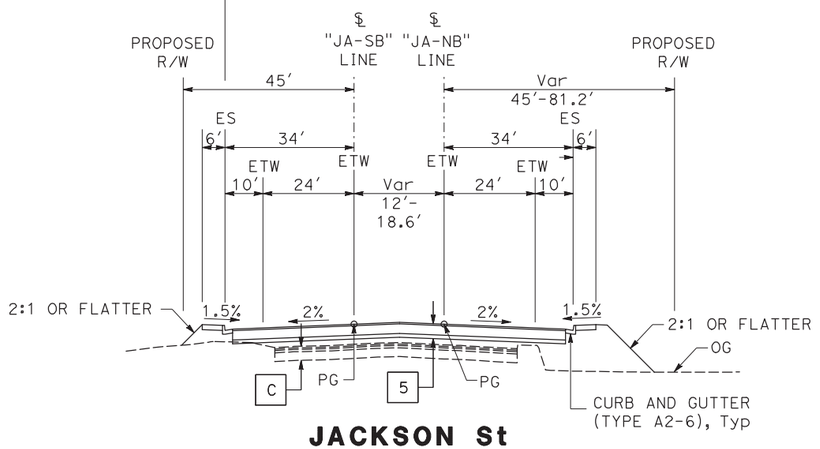



**JACKSON St**

"JA-SB" Sta 39+54 TO Sta 43+40

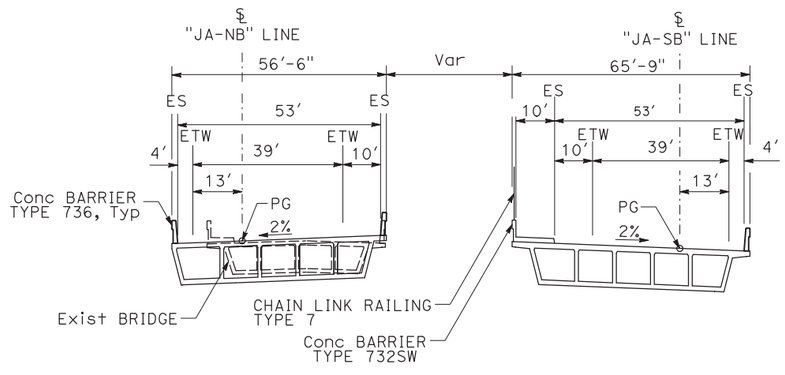



"JA-SB" Sta 22+34 TO
Sta 25+86




**JACKSON St**

"JA-SB" Sta 18+77 TO Sta 25+64




**JACKSON St OC**

"JA-SB" Sta 33+68 TO Sta 36+30

D170572.00 - I-10 Jackson IC (HNTB)\05 Graphics-GIS-Modeling\ISEA

SOURCE: Caltrans, 2020



**Figure 1-7**
Typical Cross Section, Build Alternative 4

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**Table 1-2 Design Exceptions Unique to Build Alternative 2**

| Design Standard | Justification for Nonstandard Feature (Exception) |
|---|---|
| 202.2(1) – Standard for Superelevation | To attain standard superelevation rate at the westbound off-ramp, the alignment would need to be revised with a larger curve and a superelevation rate of 2% (the length of the curve is too short to allow full development while keeping the ramp alignment within existing ROW) which could be achieved with a ramp alignment that intersects Jackson Street with a high skew of 60 degrees resulting in nonstandard angle of intersection. |
| 302.2(3) – Shoulder Cross Slope | Nonstandard shoulder cross slope is proposed between reversing curves on the westbound off-ramp in order to improve drainage and avoid placement of drainage facilities along the proposed retaining wall along the right shoulder. |
| 202.5(1) – Superelevation Transition | To provide standard superelevation transition a longer tangent between curves would be required to accommodate both transition and runoff at the westbound off-ramp. This change would shift alignment east into Indio Town Center resulting in new right-of-way acquisition including removal of 24-Hour Fitness, Taco Bell and KFC restaurants. |
| 504.3(3) – Distance Between Ramp Intersection and Local Road Intersection | The proposed intersection spacing between the westbound ramps and Atlantic Avenue would be approximately 432 feet and does not meet the minimum required distance of 500 feet. The proposed Alternative 2 configuration results in nonstandard spacing due to the existing location of Atlantic Avenue in relation to the westbound ramp. Alternative 2 would propose a raised median to also restrict access to Atlantic Avenue. |

#### 1.5.3.3 Alternative 4 – Diverging Diamond Interchange

Under this build alternative, the existing I-10/Jackson Street interchange would be reconstructed to a diverging diamond interchange (DDI) configuration utilizing a twin-bridge layout spanning over the I-10 freeway and the Whitewater River. Two new parallel bridge structures over the Whitewater River and Jackson Street overcrossing would be constructed to accommodate two 12-foot-wide through lanes, 10-foot-wide shoulders and 6-foot-wide sidewalks along Jackson Street. The existing bridges along Jackson Street will be evaluated as to whether it could accommodate two travel lanes and may be reconstructed. The crossover intersections would gradually transition traffic from the right side of the road to the left side of the road while providing free right- and left-turn movements to the I-10 on-ramps before crossing over back to the right-side of the road for through traffic. The DDI configuration requires two cross-over intersections with two-phase traffic signal operation within the interchange; inbound and outbound freeway traffic would cross one intersection compared to two intersections for the compact diamond interchange configuration. In addition, Alternative 4 would include reconstruction and restriping of Jackson Street to transition the additional travel lanes to the existing lane configurations north and south of the interchange. The I-10 westbound and eastbound on-ramps would be widened to two lanes and transition to a single lane merging to the I-10 freeway. Interchange off-ramps would be widened, realigned and restriped to accommodate additional turn lanes to Jackson Street. Auxiliary lanes would be constructed at the I-10 WB and EB ramps to enhance merging and diverging traffic to I-10.

Table 1-3 describes the nonstandard design features that are unique to Build Alternative 4.

**Table 1-3 Design Exception Unique to Build Alternative 4**

| Design Standard | Justification for Nonstandard Feature (Exception) |
|---|---|
| 504.3(3) – Distance Between Ramp Intersection and Local Road Intersection | The proposed intersection spacing between the westbound ramps and Atlantic Avenue would be approximately 380 feet and does not meet the minimum required distance of 500 feet. The proposed Alternative 4 configuration results in nonstandard spacing due to the existing location of Atlantic Avenue in relation to the westbound ramp. Alternative 4 would propose a raised median to also restrict access to Atlantic Avenue. |

### Parcel and Right-of-Way Impacts

Both Build Alternatives would partially acquire 16 parcels, with Build Alternative 2 acquiring 1.69 acres and Alternative 4 acquiring 2.059 acres. Approximately 16.684 acres for Alternative 2 and 16.366 acres for Alternative 4 would be required for temporary construction easements (TCEs) during construction. Neither Alternatives 2 or 4 would require full acquisitions from any parcels. See Table 1-4 for potential right-of-way acquisitions and where TCEs will be required.

**Table 1-4 Potential Right-of-Way Acquisition**

| APN Number | Address | Alternative 2 Partial or Full Take | Alternative 4 Partial or Full Take | Current Property Owner | Current Land Use |
|---|---|---|---|---|---|
| 610-080-009 | Indio, CA 92203 | TCE 6.43 acres | TCE of 6.43 acres | CVCWD | Vacant Land; Whitewater River |
| 610-080-042 | Indio, CA 92203 | Partial Acquisition of 0.05 acre | Partial Acquisition of 0.05 acre | Aljacks Retail Partners | Vacant Land |
| 610-230-002 | No Address Associated | Partial Acquisition of 0.014 acre | Partial Acquisition of 0.003 acre | City of Indio | Vacant Land |
| 610-230-004 | No Address Associated | Partial Acquisition of 0.20 acre | Partial Acquisition of 0.195 acre | City of Indio | School |
| 692-050-018 | 42550 Jackson Street, #A, Indio, CA 92203-9792 | Partial Acquisition of 0.076 acre | Partial Acquisition of 0.076 acre | McDonalds USA, James Femino | Commercial |
| 692-050-019 | 42550 Jackson Street, #C, Indio, CA 92203-9793 | Partial Acquisition of 0.194 acre | Partial Acquisition of 0.194 acre | Panda Express Inc., Mario Lam Sheung Woo | Commercial |
| 692-050-020 | Indio, CA 92203 | Partial Acquisition of 0.008 acre | Partial Acquisition of 0.008 acre | Indio Towne Center, James A. Padova | Vacant Land |
| 692-050-021 | 42750 Jackson Street, Indio, CA 92203-9798 | Partial Acquisition of 0.102 acre | Partial Acquisition of 0.102 acre | Tanklage Family Partnership | Commercial |
| 692-050-022 | 42750 Jackson Street, #B, Indio CA 92203-9796 | Partial Acquisition of 0.076 acre | Partial Acquisition of 0.076 acre | Taco Bell Corporation, James Ronald Vernetti | Commercial |
| 692-050-024 | 42900 Jackson Street, Indio, CA 92203-9754 | Partial Acquisition of 0.083 acre | Partial Acquisition of 0.083 acre | Indio Towne Center, James A. Padova | Commercial |
| 692-050-027 | 42700 Jackson Street, Indio, CA 92203-9752 | Partial Acquisition of 0.191 acre | Partial Acquisition of 0.191 acre | Indio Towne Center, James A. Padova | Commercial |
| 692-060-001 | 43320 Jackson Street, Indio, CA 92201-2533 | Partial Acquisition of 0.245 acre; TCE 0.413 acre | Partial Acquisition of 0.245 acre; TCE 0.413 acre | James W Clause & Alexa E Clause | Commercial |
| 692-060-002 | 43400 Jackson Street, Indio, CA 92201-2534 | Partial Acquisition of 0.086 acre; TCE 0.565 acre | Partial Acquisition of 0.086 acre; TCE 0.565 acre | James W Clause & Alexa E Clause | Vacant Land |
| 692-060-004 | Indio, CA 92203 | Partial Acquisition of 0.294 acre; TCE 8.494 acres | Partial Acquisition of 0.68 acre; TCE 8.177 acres | CVCWD | Vacant Land; Whitewater River |

| APN Number | Address | Alternative 2 Partial or Full Take | Alternative 4 Partial or Full Take | Current Property Owner | Current Land Use |
|---|---|---|---|---|---|
| 692-500-001 | Indio, CA 92201 | Partial Acquisition of 0.031 acre; TCE 0.393 acre | Partial Acquisition of 0.031 acre; TCE 0.393 acre | James W Clause & Alexa E Clause | Vacant Land |
| 692-500-002 | Indio, CA 92201 | Partial Acquisition of 0.030 acre; TCE 0.351 acre | Partial Acquisition of 0.030 acre; TCE 0.351 acre | James W Clause & Alexa E Clause | Vacant Land |
| 692-500-003 | 43486 Jackson Street, Indio, CA 92201-2534 | Partial Acquisition of 0.009 acre; TCE 0.037 acre | Partial Acquisition of 0.009 acre; TCE 0.037 acre | Edwin J Neumeyer | Single Family Residence |
| **Total Acquisitions** | **NA** | **1.69 acres** | **2.059 acres** | **N/A** | **N/A** |
| **Total TCEs** | **NA** | **16.684 aces** | **16.366 acres** | **N/A** | **N/A** |
| Source: HNTB, *RealQuest Professional*, accessed April 10, 2019. | | | | | |

### *Right-of-Way Data*

The right-of-way costs, including utility work are presented in Table 1-5. The Right-of-Way Data Sheet, which provides detailed information and right-of-way costs, was approved on September 16, 2019.

**Table 1-5 Right-of-Way Cost**

| Preliminary Estimate | Build Alternative 2 | Build Alternative 4 |
|---|---|---|
| Right-of-Way Acquisitions | $2,022,918 | $2,039,128 |
| Utility Work | $607,950 | $607,950 |
| **Total Right-of-Way & Utility** | **$2,630,868** | **$2,647,078** |

### Project Features

This project contains a number of standardized project measures which are employed on most, if not all, Department projects and were not developed in response to any specific environmental impact resulting from the proposed project. These measures are addressed in more detail in the Environmental Consequences sections found in Chapter 2.

## 1.5.4 Transportation System Management and Transportation Demand Management Alternatives

Transportation System Management (TSM) strategies increase the efficiency of existing facilities; they are actions that increase the number of vehicle trips a facility can carry without increasing the number of through lanes. Examples of TSM strategies include ramp metering, auxiliary lanes, turning lanes, reversible lanes, and traffic signal coordination. TSM also encourages automobile, public and private transit, ridesharing programs, and bicycle and pedestrian improvements as elements of a unified urban transportation system. Modal alternatives integrate multiple forms of transportation modes, such as pedestrian, bicycle, automobile, rail, and mass transit.

Although TSM measures alone could not satisfy the purpose and need of the project, the following TSM measures have been incorporated into the Build Alternatives for this project:

- A 6-foot-wide sidewalk 4 that extends on both sides of Jackson Street for the limits of the project.
- Both Build Alternatives include construction of new access ramps to CV Link recreational facility.
- Alternatives 2 and 4 would also feature two-lane ramp meter entrances at I-10 WB and EB off-ramps.

### 1.5.5 Value Analysis

A Value Analysis (VA) study was conducted for this project June 4-7, 2018. The objectives of the VA study were to: (1) evaluate the three alternatives; (2) evaluate widening potential; and (3) identify alternative tie-in options to CV Link without disrupting adjacent properties. During the course of the VA study, a number of analytical tools and techniques were applied to develop a better understanding of the baseline concept. A major component of this analysis was Value Metrics which seeks to assess the elements of cost, performance, time, and risk as they relate to project value.

It was determined at the VA Study Implementation Meeting, conducted September 6, 2018, at Department District 8 offices, that the VA alternatives related to interchange configuration and the determination for full reconstruction versus widening/retrofit of either/both configuration will require further evaluation before an implementation disposition could be ascertained. However, contained within each of these VA alternatives is the recommendation to build the new bridges in two sections rather than three (building a new structure on the right side [section 1], then shifting traffic from the existing bridge to the right bridge to reconstruct or retrofit the existing bridge [section 2]). The VA team calculated a roughly $1 million savings related to improved construction efficiencies. This aspect will be implemented in future designs as it reduces cost and construction impacts related to staging.

Several other VA alternatives identified by the VA team were accepted for implementation. One of the two VA alternatives related to adjusting the vertical curve on the south approach was accepted, depending upon whether full reconstruction or widening/retrofit is implemented. In addition, the J&L Landscape building may need to be relocated as construction will likely impact the property regardless of the staging approach selected.

### 1.5.6 Comparison of Alternatives

Build Alternatives 2 and 4 satisfy the project purpose and need. Design facilities would be fully accessible, as described in the Department's Design Information Bulletin 82-03 "Pedestrian Accessibility Guidelines for Highway Projects" and would allow Americans with Disabilities Act (ADA)–compatible crossings.

Table 1-6 provides a summary comparison between the two Build Alternatives and the No-Build Alternative, which have been studied in conjunction with development of the proposed new interchange project.

**Table 1-6 I-10/Jackson Street Interchange – Comparison of Project Alternatives**

| | **Build Alternative 2** | **Build Alternative 4** | **Alternative 1 (No-Build)** |
|---|---|---|---|
| Environmental Impacts | Similar impacts related to air quality, biological resources, cultural resources, hazardous waste/materials, hydrology and floodplain, noise, paleontology, Section 4(f) resources, and visual/aesthetics. | | None |
| | Regulated Waters of the U.S. and State<br>• 0.35 acres of permanent impacts and 0.99 acres of temporary impacts on USACE/RWQCB jurisdiction; and<br>• 0.78 acres of permanent impacts and 6.41 acres of temporary impact to CDFW jurisdiction. | Regulated Waters of the U.S. and State:<br>• 0.43 acres of permanent impacts and 0.95 acres of temporary impacts on USACE/RWQCB jurisdiction; and<br>• 0.91 acres of permanent impacts and 6.32 acres of temporary impacts to CDFW jurisdiction. | None |
| | Water Quality<br>• 7.88 acres of new impervious surface. | Water Quality<br>• 7.88 acres of new impervious surface. | None |
| Engineering | Similar impacts related to LSEV users, utilities, Transportation System Management strategies, pavement strategies, and drainage. | | None |
| | Right-of-Way Acquisition<br>• 1.69 acres permanent acquisition<br>• 16.684 acres TCEs | Right-of-Way Acquisition<br>• 2.059 acres permanent acquisition<br>• 16.366 acres TCEs | None |
| | Structures<br>• One structure over I-10 approximately 264 feet by 122 feet; and<br>• One structure over the CVSC approximately 550 feet by 115 feet | Structures<br>• Two structures over I-10 approximately 264 feet by 54 feet; and<br>• Two structures over the CVSC approximately 550 feet by 47 feet feet | None |
| | Multi-Modal Users<br>• 4 pedestrian / bike / LSEV crossing points | Multi-Modal Users<br>• 8 pedestrian / bike / LSEV crossing points<br>• Free-turn vehicle movements encourage higher speeds and increase the severity of conflicts with bike, LSEV, and pedestrian users | N/A |
| Traffic Operations | Similar operational improvements related to peak hour level of service (LOS) for both the mainline and intersection analysis.<br>Similar freeway operations for both alternatives. | | None |
| | Compared to No-Build (Alternative 1):<br>• 1.85% improvement in AM average vehicle delay<br>• 9% improvement in PM average vehicle delay | Compared to No-Build (Alternative 1):<br>• 3.7% improvement in AM average vehicle delay<br>• 8% improvement in PM average vehicle delay | None |
| Project Cost | $82,800,000 | $82,900,000 | None |

#### 1.5.6.1 Cost Estimates

A breakdown of the current estimated costs are summarized in Table 1-7.

**Table 1-7 Project Costs**

| | Build Alternative 2 | Build Alternative 4 |
|---|---|---|
| **Construction Cost** | | |
| Roadway | $31,255,200 | $34,093,100 |
| Structures | $29,121,851 | $26,334,743 |
| Right-of-Way | $2,630,868 | $2,647,078 |
| **Support Cost** | | |
| PA/ED | $1,878,000 | $1,878,000 |
| PS&E | $9,060,000 | $9,060,000 |
| Right-of-Way | $371,250 | $371,250 |
| Construction Management | $8,450,000 | $8,480,000 |
| **Total Project Cost** | **$82,800,000** | **$82,900,000** |

### 1.5.7 Final Decision-Making Process

After the public circulation period, all comments received will be considered, and the Project PDT team will identify a preferred alternative and make the final determination of the project's effect on the environment. Under CEQA, if no unmitigable significant adverse impacts are identified, the Department will prepare a Negative Declaration (ND) or Mitigated ND. Similarly, if the Department determines the action does not significantly impact the environment, the Department, as assigned by the FHWA, will issue a Finding of No Significant Impact (FONSI) in accordance with NEPA.

In accordance with Senate Bill (SB) 743 CEQA regulatory changes, the Department is a part of the Project Development Team (PDT) determined a Vehicle Miles Traveled (VMT) based significance determination is not warranted for the project. Under the Department's "VMT CEQA Significance Determination for State Highway System Projects Implementation Timeline Memorandum", dated April 13, 2020, a VMT-based significance determination may be required for projects that initiated on or after December 28, 2018 and which have reached or will reach the Departments' Milestone 020 ("Begin Environmental") before September 15, 2020. The project initiated the environmental phase (Milestone 020) on March 18, 2018, which is outside and prior to the start of the VMT implementation timeline established under the above noted memorandum. Therefore, a VMT-based significance determination is not warranted for this project.

### 1.5.8 Locally Preferred Alternative

In July 2019, the Indio City council reviewed the benefits and impacts associated with each of the build alternatives under consideration and designated Alternative 2 as the Locally Preferred Alternative (LPA). The identification of the project's Preferred Alternative (PA) is planned to occur after the circulation of this IS/EA and the public hearing.

## 1.5.9 Alternatives Considered but Eliminated from Further Discussion

### 1.5.9.1 Alternative 3: Single Point Interchange (SPUI) (from PSR-PDS)

Alternative 3 proposes to reconstruct and widen the existing interchange to a Type L-13 SPUI configuration. The SPUI intersection type controls all at grade traffic movements through one signalized intersection. The existing Jackson Street overcrossing would be reconstructed to accommodate two through lanes and two left-turn pockets for each direction of travel. The existing Whitewater River Bridge would be reconstructed to accommodate two lanes of traffic in each direction. This alternative would provide the following benefits:

- Improved operational efficiency and safety
- Single traffic signal, ideal for balanced traffic volumes
- Wider turn radii eases movement for large vehicles

Alternative 3 is consistent with the requirements stated in the Traffic Operations Policy Directive (TOPD) 13-02: Intersection Control Evaluation (ICE).

On June 28, 2018, the PDT eliminated this alternative from further consideration. The decision resulted from City input, the Draft Preliminary VA Study Report, and an Alternative Screening Analysis. The Alternative Screening Analysis assessed the project alternatives on four qualitative and quantitative categories, which included Traffic Operations and Performance, Multi-Modal Safety, Corridor Impacts, and Community Expectations. The alternative ranked lowest in the screening analysis, which were documented in the June 2018 PDT meeting minutes.

#### Diamond Interchange with Roundabout Intersection Control

This alternative proposes to reconstruct and widen the existing interchange to a Type L-1 Diamond interchange configuration. Roundabouts are proposed to provide traffic right-of-way controls at the ramp intersections.

As part of the ICE process, this alternative was evaluated in the Traffic Operations Analysis Report. The analysis indicates that two-lane roundabouts would not provide sufficient capacity nor meet the purpose and need of the project, while three-lane roundabouts would have significant right-of-way impacts and costs associated with additional infrastructure and bridge/roadway widening.

#### Partial Cloverleaf Interchange and Roundabouts

Department District Traffic Operations Policy Directive 13-02: Intersection Control Evaluation (ICE) requires the consideration of various strategies, treatments, and configurations at state highway intersections to balance the needs of all modes and users with system performance goals and the highway facility context. To address the ICE requirements, the team assessed the viability of three other potential intersection configurations in addition to Alternatives 2 and 3; a partial cloverleaf (Parclo) and two types of roundabouts. Roundabouts were evaluated at the I-10 eastbound and westbound ramp intersections at Jackson Street. A memorandum has been drafted and appended to the Draft Project Report completed for this project (Caltrans 2020), with a recommendation that the Parclo and roundabouts alternatives should be removed from further consideration due to some or all of the following factors:

- Significant right-of-way acquisition
- ROW acquisition would potentially generate project controversy
- Negligible operational benefit
- Significant congestion through construction staging

- Deficient LOS (specific to roundabouts)
- City's preference to defer additional alternatives based on initial screening
- Inconsistent with the project purpose and need

### Reversible Lanes

Assembly Bill 2542 amended California Streets and Highways code to require, effective January 1, 2017, that the Department or a regional transportation planning agency demonstrate that reversible lanes were considered when submitting a capacity-increasing project or a major street or highway lane realignment project to the California Transportation Commission for approval (California Streets and Highways Code, Section 100.015). However, reversible lanes were not considered for the I-10/Jackson Street Interchange Improvement Project because it is 100 percent locally funded and was programmed prior to January 1, 2017.

## 1.6 Permits and Approvals Needed

The following permits, licenses, agreements, and certifications (PLACs) listed in Table 1-8 would be required for project construction. The City of Indio will submit the permit applications and is the responsible permittee for compliance of the permit conditions.

**Table 1-8 Required Permits, Reviews, and Approvals**

| Agency | Permit/Approval | Status |
|---|---|---|
| State Water Resources Control Board (SWRCB) | National Pollutant Discharge Elimination System (NPDES) Permit | NPDES General Construction Permit (2009-0009-DWQ) would be applied for 30 days prior to soil-disturbing activities. |
| California Department of Fish and Wildlife (CDFW) | Section 1602 Streambed Alteration Agreement | Application for permit will be submitted to CDFW after approval of the final Environmental Document. Permit will be acquired prior to completion of final design. |
| Colorado River Regional Water Quality Control Board (RWQCB) | Porter-Cologne Act and CWA Section 401 Water Quality Certification | Application for permit will be submitted to RWQCB after approval of the final Environmental Document. Permit will be acquired prior to completion of final design. |
| U.S. Army Corps of Engineers (USACE) | Clean Water Act (CWA) Section 404 Nationwide Permit | Application for permit will be submitted to USACE after approval of the final Environmental Document. An Approved Jurisdictional Determination will be included in the permit application. Permit will be acquired prior to completion of final design. |
| USACE | Section 408 Permit | Application for permit will be submitted to USACE after approval of the final Environmental Document. Permit will be acquired prior to completion of final design. |
| City of Indio, California Department of Transportation (Caltrans) | Freeway Agreement | Superseding Freeway Agreement will be prepared and executed after completion and approval of the final Environmental Document and Project Report. |
| Federal Highway Administration (FHWA) | Air Quality Conformity Determination | FHWA's air quality conformity analysis determination letter will be obtained prior to approval of the final Environmental Document for the project. |
| Coachella Valley Water District (CVWD) | Encroachment Permit | Permit will be acquired prior to completion of final design. |

# **Chapter 2** Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

As part of the scoping and environmental analysis carried out for the project, the following environmental issues were considered; however, no adverse impacts were identified. As a result, there is no further discussion about these issues in this document.

- Coastal Zone: There will be no effect to coastal resources because the project is not in the vicinity of a coastal zone.
- National Marine Fisheries Service (NMFS) Jurisdiction: This project is located outside of NMFS jurisdiction; therefore, an NMFS species list is not required and no effects to NMFS species are anticipated.
- Wild and Scenic Rivers: The project is not in the vicinity of a designated Wild and Scenic River.
- Timberlands: There are no timberlands or timber harvesting uses in the project area. The project would have no effect on timberlands.
- Wildfire: The project is not located in or near a state responsibility area or land classified as very high fire hazard severity zone. The project area is in a Local Responsibility Area (LRA) incorporated city in a Non-Very-High Fire Hazard Severity Zone.
- Threatened and Endangered Species: This project is located outside of NOAA Fisheries Service jurisdiction; therefore, a NOAA species list is not required and no effects to NOAA species are anticipated.

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# 2.1 Human Environment

## 2.1.1 Land Use

### 2.1.1.1 Affected Environment

The project site is located at the existing Interstate 10 (I-10)/Jackson Street interchange in the City within the central portion of the County. According to the *City of Indio 2040 Draft General Plan Update*, Indio is the largest and most populated city in the Coachella Valley, which includes other cities such as Palm Springs and Palm Desert. According to the U.S. Census, Indio had an estimated population of 88,000 in 2018, and was the 10th fastest growing city in California in between 2010 and 2018. The City is expected to continue to experience significant growth in the future. According to the Southern California Association of Governments (SCAG), Indio is expected to reach a population of approximately 123,000 by 2040, an increase of approximately 39.2 percent (City of Indio, 2018). In addition to its permanent residents, thousands of people reside in the City during the winter months and during festivals. In addition, other special events attract nearly 1.4 million visitors annually to the City (City of Indio, 2018).

According to 2015 Urban Water Management Plans prepared for CVWD and Indio Water Authority, current land uses within the project area reflect development with commercial, limited industrial, recreational, and vacant land uses. Proposed future land uses include open space, residential, resource recovery, mixed use, business park, and some community commercial. Within the project boundary, there are no parks, wildlife refuges, or ecological reserves.

#### *Existing and Future Land Use*

*Existing Land Use*

The project site is located within and adjacent to the interchange of I-10 and Jackson Street within the City of Indio. As roadway facilities, the on-site roadways and interchange do not have a land use or zoning designation based on the City's General Plan Land Use Map and Zoning Map, respectively. According to the Roadway Classifications Figure of the General Plan Circulation Element, I-10 is labeled "Freeway" and Jackson Street is labeled "Widened Arterial (6 Lanes)" within the project limits. Based on this figure, the project site is within an area designated as "Special Study Area." The project site is generally surrounded by areas with a General Plan land use designation of "Mixed Use Development Agreement" and "Community Commercial" within the northwestern and northeastern quadrants of the interchange, respectively. Areas to the south of I-10 are designated "Open Space" by the General Plan. The Whitewater River is located within these areas and traverses Jackson Street to the south of the interchange in an east-west direction. Other designations surrounding the southern portion of the project site include Business Park, Commercial office, and Public. According to the City's Zoning Map, I-10 and Jackson Street are roads/rights-of-way. The site is surrounded by areas with a zoning designation of Mixed Use Development Agreement, Community Commercial, Whitewater Storm Channel, Residential–Low, Neighborhood Commercial, and Public. The Jackson Street interchange is a major access point for existing residential and commercial development at the interchange area.

I-10 is a major, east-west transportation route that connects the City of Indio to Los Angeles County, to the west, and the California/Arizona state border, to the east. The route is functionally classified as an "Urbanized Freeway" and is a part of the "State Freeway and Express" (F&E) System. The segment of I-10 from State Route 60 (SR-60) to the California/Arizona State Line is included in the State Interregional Road System, which further classifies the route as a "High Emphasis" and "Gateway" route. In addition, the length of I-10 within the County of Riverside (District 8) is included in the National Highway System, the Rural and Single Interstate Routing System, and the Strategic Highway Corridor Network, and it is a Surface Transportation Assistance Act route for use by oversized trucks. Within the project limits, I-10 is

six lanes in total, with three mixed-flow lanes in each direction; a metal-beam center divider, and does not have high-occupancy vehicle (HOV) lanes.

Jackson Street is a north-south arterial in the City of Indio with an existing posted speed limit of 40 miles per hour (mph) south of the interchange, and 45 mph north of the interchange. Within the project area, it is a two-lane roadway with curbs, a striped or raised median, and a sidewalk adjacent to the southbound side of the road. The Jackson Street Overcrossing (Post Mile (PM) R55.7, Bridge Number 56-0612) is a two-span pre-stressed concrete box girder bridge constructed in 1972. It is approximately 264 feet long, 47 feet wide, and spans six lanes of traffic over I-10. Immediately south of the interchange, Jackson Street crosses over the Whitewater River via the Whitewater River Bridge (Bridge Number 56C-0084). This bridge is a five-span reinforced concrete box girder bridge. It is approximately 553 feet long and 47 feet wide.

Existing development along Jackson Street in the immediate vicinity of the interchange includes the Indio Towne Center with The Home Depot, and numerous restaurants in the northeast quadrant of the interchange. The northwest quadrant features a Super Target and other big box stores. In addition, there are residential communities and The Lights at Indio Golf Course north of the interchange. The Whitewater River runs parallel to I-10 immediately south of the interchange. North Jackson Park, Andrew Jackson Elementary School, J&L Materials Landscape Supply, and residential communities are located south of the Whitewater River. Figure 2-1 shows the existing land uses in the project area.

### *Future Land Use*

As roadway facilities, the on-site roadways and interchange do not have a land use or zoning designation based on the City's Land Use Map and Zoning Map, respectively. According to the City's Zoning Map, I-10 and Jackson Street are roads/rights-of-way. The site is surrounded by areas with a zoning designation of Mixed Use Development Agreement, Community Commercial, Whitewater Storm Channel, Residential–Low, Neighborhood Commercial, and Public. (City of Indio, 2009).

Other approved land development and transportation infrastructure projects under consideration by the City in the vicinity of the project are listed in Table 2-1, and identified in Figure 2-2.

**Table 2-1 Recent and Planned Area Development**

| ID#* | Project Name | Location | Project Description | Jurisdiction | Status |
|---|---|---|---|---|---|
| 1 | Hampton Inn & Suites | APN: 610-330-022 | 93-room Hampton Inn & Suites by Hilton on a vacant 2.13 acres | City of Indio | Under Construction |
| 2 | Maya Cinema at the Palms Shopping Center | Parcel 19 of PM 36716.The site is generally located at the southeast corner of Monroe Street and Avenue 42; north of Interstate-10 and west of Spectrum Street | 70,000 square feet | City of Indio | In plan check |
| 3 | Marshalls at the Town and Indio Shopping Center | 42400 Jackson St | 22,153 square feet | City of Indio | Completed, store is open |
| 4 | Burlington Coat Factory at the Town and Indio Shopping Center | 42500 Jackson St | 40,000 square feet | City of Indio | Completed, store is open |

**Table 2-1 Recent and Planned Area Development**

| ID#* | Project Name | Location | Project Description | Jurisdiction | Status |
|---|---|---|---|---|---|
| 5 | Ulta and Five Below at the Town and Indio Shopping Center | 42300 Jackson St | 19,022 square feet | City of Indio | Under Construction |
| 6 | Ono Restaurant at the Town and Indio Shopping Center | 42100 Jackson St | 2,844 square feet | City of Indio | Under review, to go before Planning Commission |
| 7 | EOS Gym at the Palms Shopping Center | Monroe Street and Avenue 42 | 38,000 square feet | City of Indio | In plan check |
| 8 | Carwash at the Palms Shopping Center | Monroe Street and Avenue 42 | 3,590 square feet | City of Indio | In plan check |
| 9 | Arby's at the Palms Shopping Center | Monroe Street and Avenue 42 | 2,400 square feet | City of Indio | In plan check |
| 10 | Chevron Market and Gas Station | APN: 692-050-007 | 2,400 square feet convenience store with a gasoline fueling station consisting of four multi-product dispenser gasoline pumps | City of Indio | Under construction |
| 11 | Fairfield Inn and Suites | APNs: 610-080-024 and 610-080-025 | 60,000-square-foot, four-story, 120-room hotel | City of Indio | Completed, hotel is open |
| 12 | Indio Festival Row shopping center | APNs: 610-020-010, 610-020-034, 610-020-036, and 610-020-021 | 700,000 square feet of commercial, including 240 rooms hotel and 157,000 recreation facilities | City of Indio | Under review for site design |
| 13 | Golden Corral Bar and Grill | APN: 610-080-064 | 12,852 square feet restaurant with 182 parking spaces on 2.38 acres | City of Indio | In plan check |
| 14 | Golf Center Village | APNs: 611-310-012 and 611-310-013 | 4,000-square-foot sit-down restaurant, a 34,500-square-foot retail/ commercial building, a 77-room, 6,000-square-foot Arco convenience store with 20 gasoline pumps and a 2,560-square-foot carwash, 3,200-square-foot fast food restaurant | City of Indio | Approved by Planning Commission only gas station, car wash, one fast food restaurant<br>Market has been completed and opened |
| 15 | 7-Eleven Market and Gas Station | APN: 611-330-017 | Subdivide a 2.13-acre parcel into two parcels for commercial purposes develop one parcel with a 3,494-square-foot convenience store and fueling station | City of Indio | Approved by Planning Commission, plan check summer 2020 |

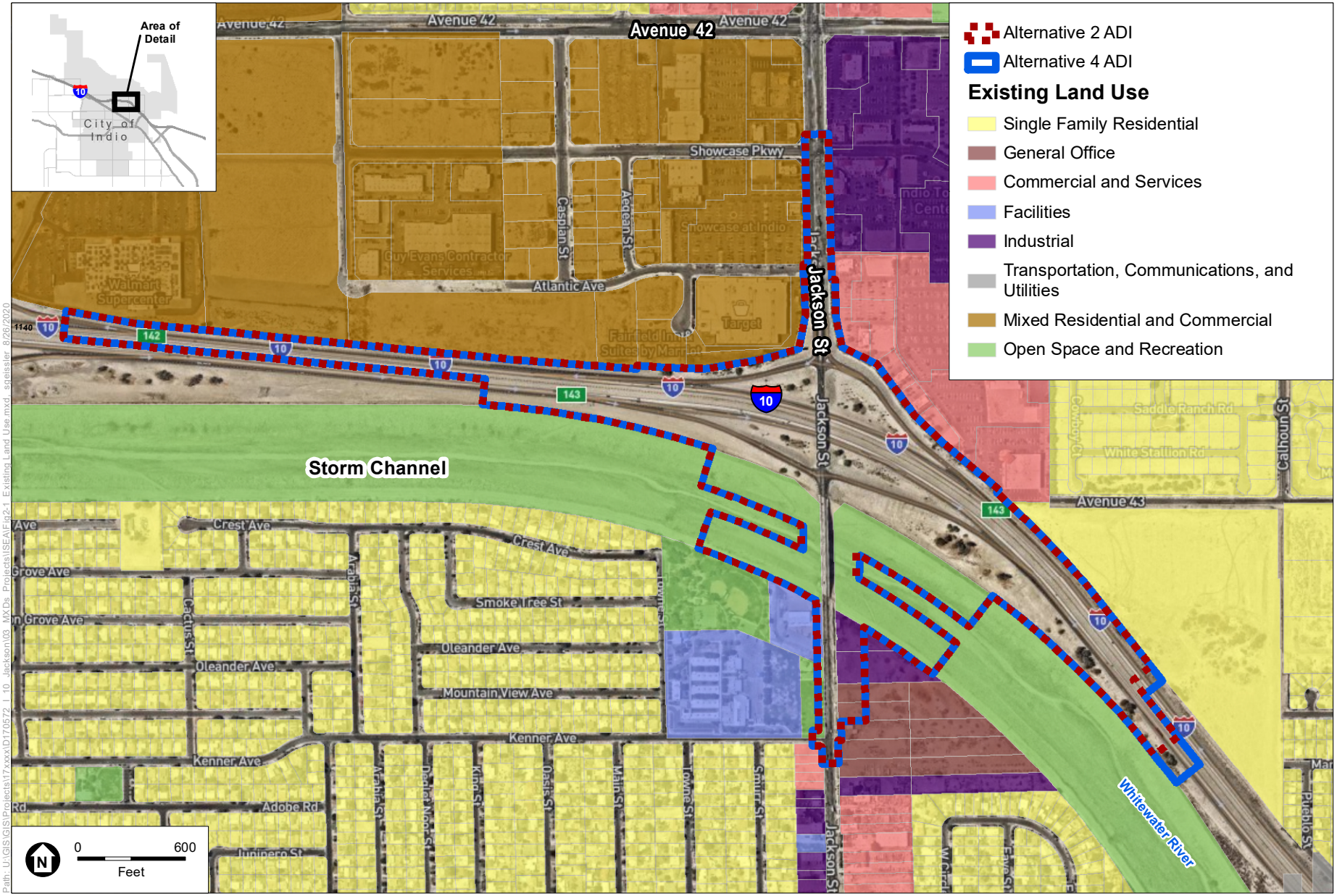
**Table 2-1 Recent and Planned Area Development**

| ID#* | Project Name | Location | Project Description | Jurisdiction | Status |
|---|---|---|---|---|---|
| 16 | Shadow Ranch Country Club | Northwest corner of Avenue 43 & Calhoun Street. | 81 residential lots | City of Indio | Under review by staff, to restart the construction in fall |
| 17 | Hacienda Pointe | APN: 679-310-009 | 137 single-family homes | City of Indio | Under construction |
| 18 | Mountain Estates | APN: 692-261-067 | 123 single-family homes | City of Indio | Completed |
| 19 | CV Link RIV131005 / RTP ID: 3NL04 | Within the limits of the project; along the Southern bank of the Coachella Valley Stormwater Channel (Whitewater River). | 50-mile-long multi-use trail that connects cities within Coachella Valley for use of Low-Speed Electric Vehicles (LSEV), bicycles, and pedestrian users. This CV Link path will allow for egress and ingress to Monroe Street. | Coachella Valley Association of Governments | Currently in the final design and construction phase. In the area of the I-10/Jackson project, construction is anticipated to begin in the summer of 2019 and be completed in the summer of 2020 |
| 20 | I-10/Monroe Street Interchange Project<br>RTP ID: 3A07022<br>EA 08-0K730<br>PN 0800000368 | The Monroe Street interchange is located on I-10 at Post Mile (PM) R54.7, between PM R53.9, approximately 2 miles east of the Jefferson Street interchange and PM R55.5, approximately 1 mile west of the Jackson Street interchange. | Reconstruct and widen Monroe Street at Interstate 10 (I-10) to improve the operational performance of the Monroe Street interchange. | Riverside County Transportation Department, Caltrans, City of Indio | Currently in the PA&ED phase<br>Environmental clearance anticipated in Spring 2020<br>Final design anticipated in Summer 2022 and construction completed in 2025 |
| 21 | Jackson Street Improvements - Roadway<br>RTP ID 3A01CV110B | On Jackson Street between I-10 Interchange and Ave 44 and I-10 Interchange and Ave 41. | Widening from 2 to 4 lanes between I-10 Interchange and Ave 44, I-10 Interchange and Ave 41 | City of Indio | To be completed in 2024 |
| 22 | Monroe Street Improvements - Roadway widening from 2 to 6 lanes between Avenue 41 and Avenue 42.<br>RTP 3A07030 | On Monroe Street between Avenue 41 and Avenue 42. | Widening from 2 to 6 lanes between Avenue 41 and Avenue 42. | City of Indio | To be completed in 2022 |

* ID# corresponds to Figure 2-2, Recent and Planned Area Development.

Sources:

Email correspondences with Leila Namvar, Assistant Planner at the City of Indio, May 29, 2019.

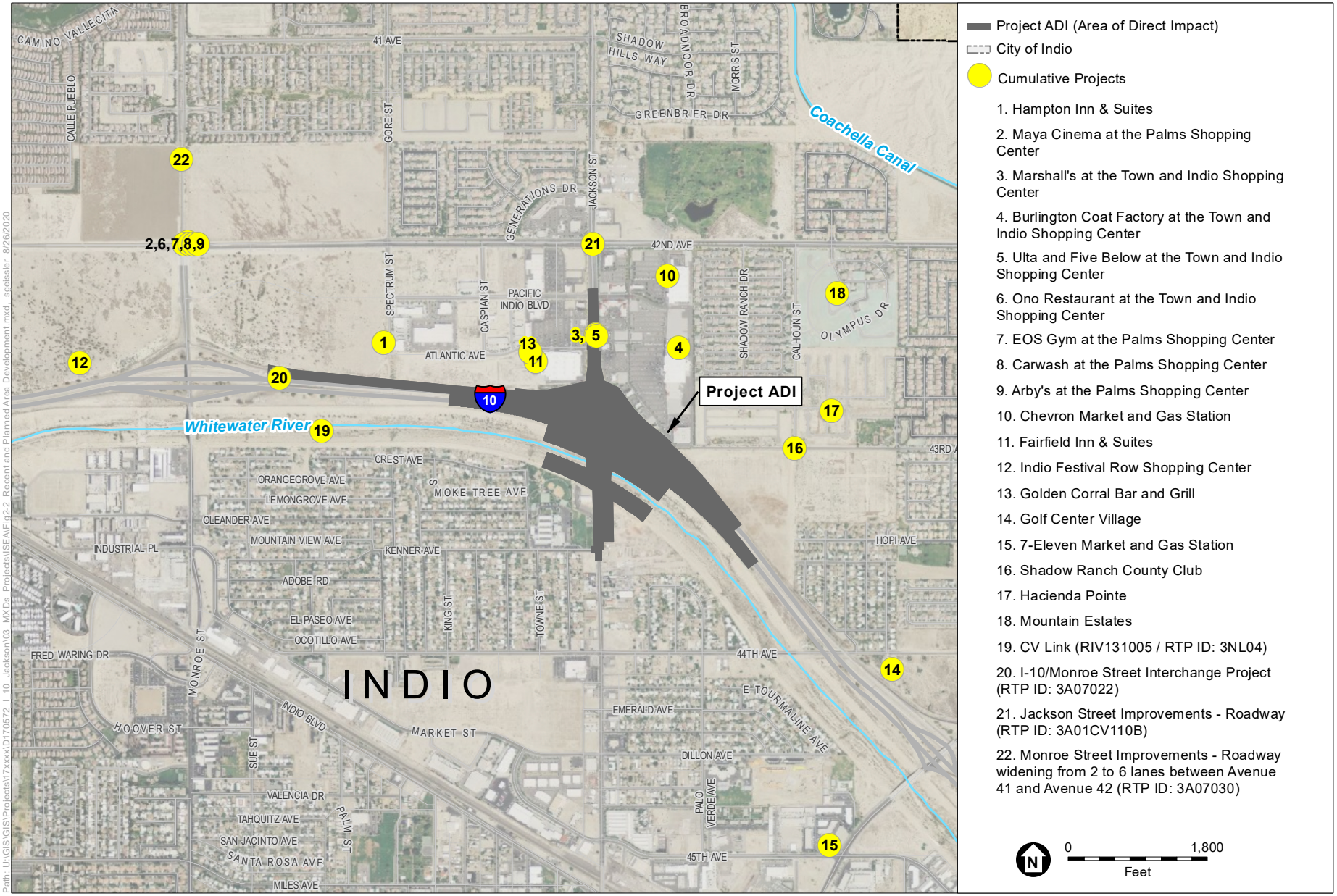



SOURCE: SCAG 2012; Mapbox, 2020 (Aerial).

I-10 / Jackson Street Interchange Project

**Figure 2-1**
Existing Land Use

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SOURCE: Riverside County GIS; National Hydrography Dataset

I-10 / Jackson Street Interchange Project

**Figure 2-2**

Recent and Planned Area Development

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### *Consistency with State, Regional, and Local Plans and Programs*

*California Transportation Plan 2040 (CTP)*

The CTP (June 2016) is a long-range transportation policy plan that explores the social, economic, and technological trends and demographic changes anticipated through the 2040 planning horizon and their potential influence on travel behavior. The CTP provides a vision for California's future transportation system and defines goals, policies, and strategies to achieve the vision. The CTP proposes a balanced approach to the projected increase in demand for mobility and accessibility. By providing a common framework for decision makers at all levels of government and the private sector, the CTP seeks to guide transportation decisions and investments that will enhance our economy, support our communities, and safeguard our environment for the benefit of all.

The transportation system must provide equitable and effective mobility and accessibility. It must be safe and secure, and support the State's economic prosperity. It must co-exist with and enhance our natural and human environments. The following goals, while identified and discussed as separate issues, are interdependent. For example, if the system is not well maintained, the level of mobility and safety will decline. Each goal supports one or more concepts contained in the vision for California's transportation system and is followed by supporting policies relative to the project.

- **Goal 1** – Improve Multi-Modal Mobility and Accessibility for All People
  - **Policy 1** – Manage and Operate an Efficient Integrated System.
  - **Policy 2** – Invest Strategically to Optimize System Performance.
  - **Policy 3** – Provide Viable and Equitable Multi-modal Choices Including Active Transportation.
- **Goal 3** – Support a Vibrant Economy
  - **Policy 1** – Support Transportation Choices to Enhance Economic Activity.
  - **Policy 3** – Seek Sustainable and Flexible Funding to Maintain and Improve the System.
- **Goal 4** – Improve Public Safety and Security
  - **Policy 2** – Provide for System Security, Emergency Preparedness, Response, and Recovery.
- **Goal 5** – Foster Livable and Healthy Communities and Promote Social Equity
  - **Policy 2** – Integrate Multi-modal Transportation and Land Use Development.
  - **Policy 3** – Integrate Health and Social Equity in Transportation Planning and Decision Making.
- **Goal 6** – Practice Environmental Stewardship
  - **Policy 1** – Integrate Environmental Considerations in All Stages of Planning and Implementation.

*Southern California Association of Governments (SCAG) 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): A Plan for Mobility, Accessibility, Sustainability and a High Quality of Life, Final Amendment #3*

The 2016-2040 RTP/SCS, Final Amendment #3 provides a vision for transportation investments throughout the region. Using growth forecasts and economic trends that project out over a 20-year period, the RTP considers the role of transportation in the broader context of economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address our mobility needs. The RTP seeks to identify regional solutions to transportation issues in Southern California. The

RTP/SCS includes the following goals and policies applicable to station planning, land use, and development:

- Maximize mobility and accessibility for all people and goods in the region.
- Ensure travel safety and reliability for all people and goods in the region.
- Encourage land use and growth patterns that facilitate transit and active transportation.
- Preserve and ensure a sustainable regional transportation system.
- Maximize the productivity of our transportation system.

SCAG's 2016 RTP/SCS, Final Amendment #3 provides the basic policy and program framework for long-term investment in the regional transportation system. Transportation investments in the SCAG region that receive state or federal transportation funds must be consistent with the RTP and must be included in the Federal Transportation Improvement Program (FTIP) (see below) when ready for funding. The project is fully funded and included in SCAG's 2016-2040 RTP/SCS, Final Amendment #3 (as RTP ID 3A07020).

Southern California Association of Governments 2019 Federal Transportation Improvement Program
The FTIP is a capital listing of all transportation projects proposed over a 6-year period for the SCAG region. The projects include highway improvements, transit, rail and bus facilities, HOV lanes, signal synchronization, intersection improvements, freeway ramps, etc. In the SCAG region, a biennial FTIP update is produced on an even-year cycle. The FTIP is prepared to implement projects and programs listed in the RTP and developed in compliance with State and federal requirements. The 2019 FTIP was adopted by SCAG and SCAG's Regional Council on September 6, 2018, and the 2019 FTIP approval by the federal agencies occurred December 17, 2018.

The project is listed in SCAG's FTIP as a State Highway Project (FTIP ID RIV071252) and has $56,000,000 programmed for the project. The project scope of work is consistent with the description of the project in the most current version of the 2019 FTIP, which states:

> *"On I-10 in Indio at Jackson St IC (at PM R55.575): reconstruct/widen IC from 2 to 6 through lanes including bridge over Whitewater River Channel from Showcase Pkwy to south of whitewater River Channel, reconstruct/widen ramps 1 to 2 lanes, modify traffic signals."*

### *Coachella Valley Multiple Species Habitat Conservation Plan*

The Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) (developed in 1998 by Coachella Valley Mountains Conservancy [CVMC]) 2019 Annual Report provides a regional vision for balanced growth that will help conserve the Coachella Valley's natural heritage while also building a strong economy that is vital to the future of the Valley. The Plan was developed in tandem with the Coachella Valley region of the California Desert Conservation Area (CDCA) to provide a framework for implementation actions supporting landscape-level approach to conservation. The CVMSHCP protects 240,000 acres of open space and 27 species. The goal of this plan is to enhance infrastructure without environmental conflicts, offer opportunities for recreation, tourism and job creation while still ensuring the survival of endangered species. The California Department of Transportation (Department) is a signatory to this plan and certain specific projects have been covered by the plan.

The CDFW issued the Natural Community Conservation Plan permit for the CVMSHCP on September 9, 2008, and the USFWS issued the final permit for the CVMSHCP on October 1, 2008. The CVMSHCP "balances environmental protection and economic development objectives in the Plan Area and simplifies compliance with endangered species related laws" (CVAG 2007). It currently covers 27 species; a Reserve System will be established within 21 Conservation Areas based on occurrences of 27 natural communities that provide habitat for the Covered Species. The project is listed as a covered project, under Section 7.2.3, Regional Road Projects, of the CVMSHCP. The Biological Study Area associated with the I-10/Jackson Street Interchange Project is located in the CVMSHCP Area, but is located outside of all associated Conservation Areas.

### *Indio General Plan 2020*

As roadway facilities, the on-site roadways and interchange do not have a land use or zoning designation based on the City's Draft General Plan Land Use Map and Zoning Map, respectively. According to the City of Indio Circulation Element Roadway Classification, Monroe Street is designated as "Arterial (four to six lanes)" and I-10 is labeled "Freeway" (City of Indio, 1994). According to the Indio General Plan 2020, Volume I (November 1994), the City designated the parcels north of the project as "*Mixed Use, Development Agreement (MU [DA])*" and "*Community Commercial CC*," and the parcels to the south of the project as "*Whitewater Storm Channel*," "*Low Density Residential RL*," and "*Neighborhood Commercial*" (https://www.indio.org/your_government/development_services/planning_division/maps_plans.htm).

#### *Circulation Element*

Goals and policies excerpted from the Circulation Element of the City's General Plan include the following:

- **Goal CIR-1:** Provide a circulation system to serve the internal circulation needs of the City while also addressing the intercommunity through-travel needs.
    - **Policy CIR-1-2 Roadway Standards.** Establish roadway cross-sections and standards that are adequate to ensure traffic safety.
    - **Policy CIR-1-5 Pedestrian-Friendly Systems.** Establish street sections in residential neighborhoods and certain commercial areas that, while accommodating vehicular traffic, give preference to pedestrian users.
- **Goal CIR-2:** Accommodate alternatives to private automobile transportation that meet the needs of all City residents.
    - **Policy CIR-2.2 Bike Lane and Trails.** Provide a circulation network that accommodates the safe and efficient movement of cyclists on bike lanes and bike trails.
- **Goal CIR-3:** Promote a regional transportation system that serves existing and future travel between Indio and other populations and employments centers within the region.
    - **Policy CIR-3-1 Regional Transportation Facilities.** Interface with appropriate jurisdictions and agencies to encourage the timely improvement of roadway and transit facilities which address area wide and regional travel needs.

### 2.1.1.2 Environmental Consequences

#### *Temporary*

*No-Build Alternative*

The No-Build Alternative would not result in project construction; therefore, no construction-related impacts to existing and planned land uses would occur under the No-Build Alternative.

*Build Alternatives 2 and 4*

Existing development along Jackson Street in the immediate vicinity of the interchange includes the Indio Towne Center with The Home Depot, and numerous restaurants in the northeast quadrant of the interchange. The northwest quadrant features a Super Target and other big box stores. In addition, there are residential communities and The Lights at Indio Golf Course north of the interchange. The Whitewater River runs parallel to I-10 immediately south of the interchange. North Jackson Park, Andrew Jackson Elementary School, J&L Materials Landscape Supply, and residential communities are located south of the Whitewater River.

A total of seven parcels would require TCEs under the project for both Build Alternatives. Access to these properties would be maintained throughout construction. Because the need for TCEs would be temporary, limited to the duration of the construction, and the portion of the parcel that is temporarily impacted would be returned to the landowner after construction is completed, no adverse effects related to existing or proposed land uses, land use designations, land use plans or policies would result.

#### *Permanent*

*No-Build Alternative*

Under the No-Build Alternative, existing and planned land uses in the project area would remain as planned by the local jurisdictions, and the I-10/Jackson Avenue Interchange would not be constructed. Development on the vacant land immediately north of the interchange would still occur with or without the project. The No-Build Alternative is not considered to be consistent with the goals and policies of the *CTP 2040, 2016–2040 RTP/SCS Amendment #3,* 2019 FTIP, the CVMSHCP, or the City of Indio's General Plan, excerpted above.

*Build Alternatives 2 and 4*

The project footprint for both Alternatives 2 and 4 are similar; therefore, the discussion of Alternatives 2 and 4 below is combined into a single Build Alternatives discussion, since implementation of either Build Alternative would result in similar impacts.

Build Alternatives 2 and 4 would impact vacant land north of the interchange, as well as commercial land, a single-family home, and some greenspace/landscaping (as shown in Table 2-2. The CVSC would also require right-of-way impacts due to new bridge construction, pier protection construction, and channel lining. Coordination with the CVWD would be required throughout the project. Given the relatively minor amount of land acquisitions that would be required, the project would not result in significant impacts to existing or future land uses. The project would be compatible with planned and foreseeable future projects, which are largely commercial to the north and open space and commercial to the south. Both build alternatives would meet the project purpose and need, which is to increase capacity at the I-10/Jackson Street interchange to accommodate the forecast travel demand for the 2045 design year within the City of Indio, and improve existing interchange geometric deficiencies.

**Table 2-2 Potential Permanent Right-of-Way Acquisitions**

| APN Number | Address | Alternative 2 Partial or Full Take | Alternative 4 Partial or Full Take | Current Property Owner | Current Land Use |
|---|---|---|---|---|---|
| 610-080-009 | Indio, CA 92203 | TCE 6.43 acre | TCE of 6.43 acre | CVCWD | Vacant Land; Whitewater River |
| 610-080-042 | Indio, CA 92203 | Partial Acquisition of 0.05 acre | Partial Acquisition of 0.05 acre | Aljacks Retail Partners | Vacant Land |
| 610-230-002 | No Address Associated | Partial Acquisition of 0.014 acre | Partial Acquisition of 0.003 acre | City of Indio | Vacant Land |
| 610-230-004 | No Address Associated | Partial Acquisition of 0.20 acre | Partial Acquisition of 0.195 acre | City of Indio | School |
| 692-050-018 | 42550 Jackson Street, #A, Indio, CA 92203-9792 | Partial Acquisition of 0.076 acre | Partial Acquisition of 0.076 acre | McDonalds USA, James Femino | Commercial |
| 692-050-019 | 42550 Jackson Street, #C, Indio, CA 92203-9793 | Partial Acquisition of 0.194 acre | Partial Acquisition of 0.194 acre | Panda Express Inc., Mario Lam Sheung Woo | Commercial |
| 692-050-020 | Indio, CA 92203 | Partial Acquisition of 0.008 acre | Partial Acquisition of 0.008 acre | Indio Towne Center, James A. Padova | Vacant Land |
| 692-050-021 | 42750 Jackson Street, Indio, CA 92203-9798 | Partial Acquisition of 0.102 acre | Partial Acquisition of 0.102 acre | Tanklage Family Partnership | Commercial |
| 692-050-022 | 42750 Jackson Street, #B, Indio CA 92203-9796 | Partial Acquisition of 0.076 acre | Partial Acquisition of 0.076 acre | Taco Bell Corporation, James Ronald Vernetti | Commercial |
| 692-050-024 | 42900 Jackson Street, Indio, CA 92203-9754 | Partial Acquisition of 0.083 acre | Partial Acquisition of 0.083 acre | Indio Towne Center, James A. Padova | Commercial |
| 692-050-027 | 42700 Jackson Street, Indio, CA 92203-9752 | Partial Acquisition of 0.191 acre | Partial Acquisition of 0.191 acre | Indio Towne Center, James A. Padova | Commercial |
| 692-060-001 | 43320 Jackson Street, Indio, CA 92201-2533 | Partial Acquisition of 0.245 acre; TCE 0.413 acre | Partial Acquisition of 0.245 acre; TCE 0.413 acre | James W Clause & Alexa E Clause | Commercial |
| 692-060-002 | 43400 Jackson Street, Indio, CA 92201-2534 | Partial Acquisition of 0.086 acre; TCE 0.565 acre | Partial Acquisition of 0.086 acre; TCE 0.565 acre | James W Clause & Alexa E Clause | Vacant Land |
| 692-060-004 | Indio, CA 92203 | Partial Acquisition of 0.294 acre; TCE 8.494 acres | Partial Acquisition of 0.68 acre; TCE 8.177 acres | CVCWD | Vacant Land; Whitewater River |
| 692-500-001 | Indio, CA 92201 | Partial Acquisition of 0.031 acre; TCE 0.393 acre | Partial Acquisition of 0.031 acre; TCE 0.393 acre | James W Clause & Alexa E Clause | Vacant Land |
| 692-500-002 | Indio, CA 92201 | Partial Acquisition of 0.030 acre; TCE 0.351 acre | Partial Acquisition of 0.030 acre; TCE 0.351 acre | James W Clause & Alexa E Clause | Vacant Land |

| APN Number | Address | Alternative 2 Partial or Full Take | Alternative 4 Partial or Full Take | Current Property Owner | Current Land Use |
|---|---|---|---|---|---|
| 692-500-003 | 43486 Jackson Street, Indio, CA 92201-2534 | Partial Acquisition of 0.009 acre; TCE<br>0.037 acre | Partial Acquisition of 0.009 acre; TCE<br>0.037 acre | Edwin J Neumeyer | Single Family Residence |
| **Total Acquisitions** | **NA** | **1.69 acres** | **2.059 acres** | **N/A** | **N/A** |
| **Total TCEs** | **NA** | **16.684 aces** | **16.366 acres** | **N/A** | **N/A** |
| Source: HNTB, *RealQuest Professional*, accessed April 10, 2019. | | | | | |

### *CTP 2040*

The Build Alternatives are consistent with the goals and associated policies of the *CTP 2040*, excerpted above.

### *2016–2040 RTP/SCS, Amendment #3*

The project is included in SCAG's *2016–2040 RTP/SCS, Amendment #3* as RTP ID RIV3A07020 and is consistent with the project description in the RTP/SCS. As such, the Build Alternatives are consistent with the *2016–2040 RTP/SCS, Amendment #3*.

### *2019 FTIP*

The project is currently listed in SCAG's *2019 FTIP* for fiscal year FY 2018/19–2023/24 as a State Highway Project (FTIP ID RIV071252) and is consistent with the project description in the *2019 FTIP*. As such, the Build Alternatives are consistent with the *2019 FTIP*.

### *CVMSHCP*

The project is located in the City of Indio, which is a Permittee under the CVMSHCP and is required to comply with the requirements set forth in the Plan. Therefore, the project was analyzed for its consistency with the CVMSHCP. The project is identified as a Covered Activity under the CVMSHCP. In developing the conservation goals and objectives of the CVMSHCP, the project was identified as a facility to be developed under Section 7.2.3, Regional Road Projects. As such, the project was determined to be consistent with the biological goals and objectives of the CVMSHCP. The project is located within the boundaries of the CVMSHCP, but is not located within any CVMSHCP-designated Conservation Areas (Exhibit 7, CVMSHCP Conservation Areas). All road projects identified in Section 7.2.3, Regional Road Projects, will comply with all applicable avoidance, minimization, and mitigation measures described in Section 4.4 of the CVMSHCP. In addition, the Permittees' mitigation obligation to acquire land and fund the Monitoring Program, the Management program, and Adaptive Management is described in Section 6.6.1 of the CVMSHCP. See Section 2.3, "Biological Environment" in this chapter of this Environmental Document for more detailed discussion regarding the project's consistency with the CVMSHCP.

### *Indio General Plan 2020*

Through its General Plan, the City has developed draft goals and policies to guide development and to avoid land use conflicts and environmental hazards. The Build Alternatives would meet the project purpose and need, which is to increase capacity at the I-10/Jackson Street interchange, accommodate the City of Indio's forecast travel demand for the 2045 design year, improve geometric deficiencies, and demonstrate consistency with the City of Indio's General Plan and other regional plans. The proposed improvements under either Build Alternative are consistent with the General Plan Goals CIR-1 (Provide a

circulation system to serve the internal circulation needs of the City while also addressing the intercommunity through-travel needs), Goal CIR-2 (accommodate alternatives to private automobile transportation that meet the needs of all City residents) and Goal CIR-3 (promote a regional transportation system that serves existing and future travel between Indio and other populations and employments centers within the region).

#### 2.1.1.3 Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are required for either Build Alternative.

## 2.1.2 Parks and Recreational Facilities

### 2.1.2.1 Regulatory Setting

The Park Preservation Act (California Public Resources Code [PRC] Sections 5400–5409) prohibits local and state agencies from acquiring any property which is in use as a public park at the time of acquisition unless the acquiring agency pays sufficient compensation or land, or both, to enable the operator of the park to replace the park land and any park facilities on that land.

### 2.1.2.2 Affected Environment

Public parks and recreational facilities located within 0.5 mile of the project site are presented in Table 2-3 (See Appendix A Figure 3). The Coachella Valley Link (CV Link) trail will be owned and operated by the Coachella Valley Association of Governments (CVAG). The project would alter the Jackson Street Bridge, which crosses over the trail. The bridge and CV Link construction activities are integrated (project has been designed to accommodate CV Link design), and as a result, CV Link realignment is anticipated to be accomplished over 18 to 24 months. The trail is a proposed 50-mile alternative transportation corridor for bicycles, pedestrians and low-speed (up to 25 mph) electric vehicles. The purpose of the path is to connect Palm Springs to Coachella, with future connections to reach the Desert Hot Springs and the Salton Sea. The path will allow for pedestrians, bicyclists and persons using low speed electric vehicles to connect to parks, shopping areas and schools. Restrooms, drinking fountains, benches, and electric vehicle charging stations will be available throughout the 50-mile route. The path will be ADA compliant, use solar lighting and drought tolerant landscaping, and allow for public art spaces and future event space for activities such as organized walks and races. The trail in the project location crosses the project on its southern limits (see Appendix A Figures 4 and 5).

**Table 2-3 Parks and Recreational Facilities within 0.5 Mile of the Project Limits**

| Facility Type | Name | Address | Distance from Project |
|---|---|---|---|
| Planned Multi-use trail | CV Link – This will be a publicly owned recreational facility used for bicycles, pedestrians and LSEVs | Coachella Valley Stormwater Channel | Within the project's southern limits along the Coachella Valley Stormwater Channel. |
| Park | George S. Patton Park – Swings, playground equipment, paths, open greenspace, walking paths, tables and benches | 83700 Avenue 43, Indio, CA 92203 | 0.35 mile |
| Park | Cahuilla Park – Open greenspace, children's playground, basketball courts, BBQ areas, softball fields | 83787 Hopi Avenue, Indio, CA 92203 | 0.39 mile |
| Park | North Jackson Park – Playground Equipment, Softball Fields, Tennis Courts, Basketball Courts, Walking Paths, Shaded Areas w/Tables, Barbecue Areas | 43200 Towne Street, Indio, CA 92203 | Immediately adjacent to southwestern portion of project alternatives. |
| Golf Course | Indio Municipal Golf Course (also known as The Lights at Indio) | 86040 Avenue 42, Indio, CA 92203 | 0.2 mile |

Sources:

The Lights at Indio Golf Course, 2019. The Lights at Indio Golf Course. Accessed: http://www.indiogolf.com. Date Accessed: 5/9/2019.

City of Indio. 2019. City Parks. Accessed: https://www.indio.org/your_government/community_services/city_parks.htm. Date Accessed: 4/11/2019.

GIS. 2019. Riverside County Parcel Lines.

### *Section 4(f) Resources*

Section 4(f) of the U.S. Department of Transportation Act of 1966, codified in federal law at 49 USC 303, declares that "it is the policy of the United States government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites." Section 4(f) specifies that the Secretary of Transportation may approve a transportation program or project requiring use of the publicly owned land of a park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance or land of a historic site of national, state, or local significance (as determined by the federal, state, or local officials with jurisdiction over the park, area, refuge, or site) only if:

- There is no prudent and feasible alternative to using that land.
- The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

Section 4(f) further requires consultation with the Department of the Interior and, as appropriate, the involved offices of the Department of Agriculture and the Department of Housing and Urban Development when developing transportation projects and programs that would use lands that are protected by Section 4(f). If historic sites are involved, then coordination with the State Historic Preservation Officer (SHPO) would also be needed.

There are five properties within 0.5 miles of the project corridor that qualify as Section 4(f) resources: George S. Patton Park, Cahuilla Park, North Jackson Park, Indio Municipal Golf Course, and the planned CV Link multi-use trail. The portion of the CV Link trail that will be located in the project area for the proposed project is anticipated to be in operation during the summer of 2021, which is approximately a few years prior to the proposed I-10/Jackson Street Interchange Improvement Project is planned to be in operation. It is prudent to note that there are 1.17 acres of land in between the Andrew Jackson School and Jackson Street south of the interchange that is considered greenspace/landscaping that is unsafe for children to use as recreation because of its proximity to the roadway (610-230-004); therefore, it does not qualify as a Section 4(f) property. There are no National Register of Historic Properties (NRHP)-eligible historic or archaeological properties located within 0.5 mile of the proposed interchange improvement project; therefore, there would be no impacts on NRHP-eligible historic or archaeological properties. Additionally, there are no wildlife or waterfowl refuges within the 0.5-mile buffer, and as such, there would be no impacts on refuges.

## 2.1.2.3 Environmental Consequences

### *Temporary*

#### *No-Build Alternative*

Under the No-Build Alternative, construction activities associated with the proposed project would not occur. Therefore, no existing or planned parks or recreational facilities in the area would be temporarily affected, and no direct or indirect adverse short-term impacts on recreational and Section 4(f) resources would occur.

#### *Build Alternatives 2 and 4*

The project would not acquire public parkland for non-parkland use; therefore, the California Public Park Preservation Act of 1971 would not apply. Construction activities would result in temporary, localized, site-specific disruptions to the community in the immediate vicinity of the project's limits of disturbance, which would result primarily from construction-related traffic changes associated with trucks and equipment in the area; partial and/or full street and lane closures, some of which would require detours; increased noise and changes in air emissions during the construction period. Implementation of avoidance

and minimization measures **TRA-1** (refer to Section 2.1.8.4), **AQ-1** through **AQ-12** (refer to Section 2.2.6.4) and **N-1** and **N-2** (refer to Section 2.2.7.4) would ensure impacts to existing parks or recreational facilities are minimized. No temporary easements or temporary closures would be required at any community facilities, including the parks or public golf course. No temporary impacts to these facilities are anticipated.

### *Section 4(f) Properties*

The publicly owned parks, and recreational areas within 0.5 mile of the project area, identified in Table 2-3, were evaluated with respect to the requirements of Section 4(f) (see Appendix A). Based on current design plans for the proposed I-10/Jackson Street Interchange Improvement Project, the proposed CV Link trail would be going through the project area; however, no adverse effects on this resource is anticipated because the trail will not be closed during construction and the uses of the trail that qualify this resource under Section 4(f) will not be adversely affected during or after construction. Therefore, a *de minimis* finding is appropriate for the trail.

The portion of this trail that will be located in the project area will be constructed in 2020, and will be in operation in 2021 (prior to construction of the project), with anticipated completion/operation of the trail in summer of 2021. For both Build Alternatives, project design would include the construction of access ramps to accommodate the CV Link Trail. Access to and from the trail would be increased by implementation of this project. During construction, there would be no change in access (i.e., there would be no change in access when comparing trail conditions prior to and after the project is completed).

The project would not adversely affect the activities, features, or attributes of the trail that afford it protection under Section 4(f). However, during construction, trail users would be exposed to indirect construction activities, such as increased noise through the project area, visual changes from construction equipment, and potential increases in dust and air quality concerns during construction. These indirect impacts to the trail are temporary in nature, lasting only through the duration of construction in the area, and do not constitute a use under Section 4(f), as none of the attributes that qualify the resource for protection under Section 4(f) would be impacted. As mentioned previously, temporary construction impacts would be minimized with implementation of avoidance and minimization measures **TRA-1** (refer to Section 2.1.8.4), **AQ-1** through **AQ-12** (refer to Section 2.2.6.4) and **N-1** and **N-2** (refer to Section 2.2.7.4).

## ***Permanent***

### *No-Build Alternative*

There would be no effect to parks under the No-Build Alternative as the project improvements would not be carried out. No direct or indirect adverse long-term impacts on recreational and Section 4(f) resources would occur.

### *Build Alternatives 2 and 4*

The Build Alternatives would not result in permanent impacts on any of the public schools, parks or recreational facilities listed in Table 2-3. There are currently no recreation trails along the Coachella Stormwater Channel within the project limits; however, as mentioned earlier the CV Link trail will be constructed within the CVSC within the project limits. This CV Link path will allow for egress and ingress to Jackson Street. The project will be designed to be consistent with the CV Link project and would help accommodate multimodal travel (pedestrian, bicycle, and LSEV) consistent with the City of Indio's General Plan. No permanent impacts under CEQA or adverse effects under NEPA would occur.

### *Section 4(f) Properties*

The project would not result in any direct impacts to the CV Link trail. According to FHWA guidance provided in the Environmental Review Toolkit for Section 4(f) Evaluations, to be considered a *de minimis* impact, the amount of land to be acquired from any Section 4(f) site must not exceed 10 percent of the site. The project would not acquire any land from the resource. In fact, access to and from the trail would be increased by implementation of this project. For further discussion on Section 4(f) resources, refer to Appendix A.

### *Avoidance, Minimization, and/or Mitigation Measures*

Temporary construction impacts would be minimized with implementation of avoidance and minimization measures **TRA-1** (refer to Section 2.1.8.4), **AQ-1** through **AQ-12** (refer to Section 2.2.6.4) and **N-1** and **N-2** (refer to Section 2.2.7.4).

## 2.1.3 Farmlands

### 2.1.3.1 Regulatory Setting

The National Environmental Policy Act (NEPA) and the Farmland Protection Policy Act (FPPA) (7 United States Code [USC] 4201-4209; and its regulations, 7 Code of Federal Regulations [CFR] Part 658) require federal agencies, such as the Federal Highway Administration (FHWA), to coordinate with the Natural Resources Conservation Service (NRCS) if their activities may irreversibly convert farmland (directly or indirectly) to nonagricultural use. For purposes of the FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance.

California Environmental Quality Act (CEQA) requires the review of projects that would convert Williamson Act contract land to non-agricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to discourage the early conversion of agricultural and open space lands to other uses.

### 2.1.3.2 Affected Environment

The existing land uses of the project area are comprised of undeveloped lands, commercial properties, residential properties, school and park facilities, and transportation uses. The project improvements would mostly be built within existing roadway and highway right-of-way; however, planned property acquisitions would affect currently vacant lands. Parcels southeast and northwest of the I-10/Jackson Street interchange are designated as "*Farmland of Local Importance*" according to the Riverside County Important Farmland 2016 map. According to "A Guide to the Farmland Mapping and Monitoring Program" the "*Farmland of Local Importance*" designation is defined as:

> *"Farmland that is either currently producing crops, has the capability of production, or is used for the production of confined livestock. Farmland of Local Importance is land other than Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. This land may be important to the local economy due to its productivity or value. It does not include publicly owned lands for which there is an adopted policy preventing agricultural use."*

Table 2-4 summarizes the proposed right-of-way acquisitions and their respective Farmland Monitoring and Mitigation Program (FMMP) designations, whereas Figure 2-3 illustrates the FMMP designations in the project area.

**Table 2-4 Farmland Acquisition & Land Use Summary**

| Assessor Parcel Number (APN) | Acres | Permanent Impacts (acres) | Temporary Impacts (Acres) | FMMP Designation | Existing Land Use |
|---|---|---|---|---|---|
| 610-080-061 | 3.01 | -- | 0.125 | Farmland of Local Importance | Commercial |

Based on the General Plan land use designations, the land surrounding the proposed project is planned for future development of residential and commercial uses. In addition, and although some of the land in the project area is designated as Farmland of Local Importance by the FMMP, these lands are no longer used for agricultural purposes.

The parcels that would be impacted by the project that are not designated as farmland by the FMMP are considered "*Non-Williamson Act Land*" by the FMMP – more specifically, these particular lands are designated either as "*Non-Enrolled Lands*" and "*Urban and Built Up Land*," according to the Riverside County Williamson Act FY 2015/2016 map.

Conversions of agricultural lands to non-agricultural uses have been increasing in this eastern region of Riverside County. According to the 2012 and 2017 Censuses of Agriculture, there were 2,667 farms and 260,212 acres of active farmland in Riverside County in 2017. In 2012 there were 2,949 farms and 344,044 acres, and in 2007 there were 3,463 farms and 354,753 acres of active farmland. Land use planning for Indio, as well as other communities in the nearby vicinity, have been developed to accommodate regional growth in population, housing, and employment. According to the *Profile of the City of Indio* by the SCAG, the City of Indio experienced a population growth rate of 79.3 percent from 2000 to 2016, which is higher than the Riverside County rate of 51.9 percent. It is therefore unsurprising that the number and size of farms are decreasing as a whole in the county since 2007.

### 2.1.3.3 Environmental Consequences

#### *No-Build Alternative*

Alternative 1 (No-Build) would not construct the proposed improvements at the I-10/Jackson Street Interchange and would not require property acquisitions of the farmlands-designated parcels. No impacts to farmlands would occur.

#### *Build Alternatives 2 and 4*

##### *Temporary Impacts*

The impacts to Farmlands are identical for both Build Alternatives and thus they will be analyzed together. A total of 0.125 of an acre of "*Farmlands of Local Importance*" would be temporarily impacted by both Build Alternatives. The affected parcel is not currently used for purposes of agricultural production as it is currently used for commercial purposes. No Williamson Act lands would be temporarily impacted by either Build Alternative.

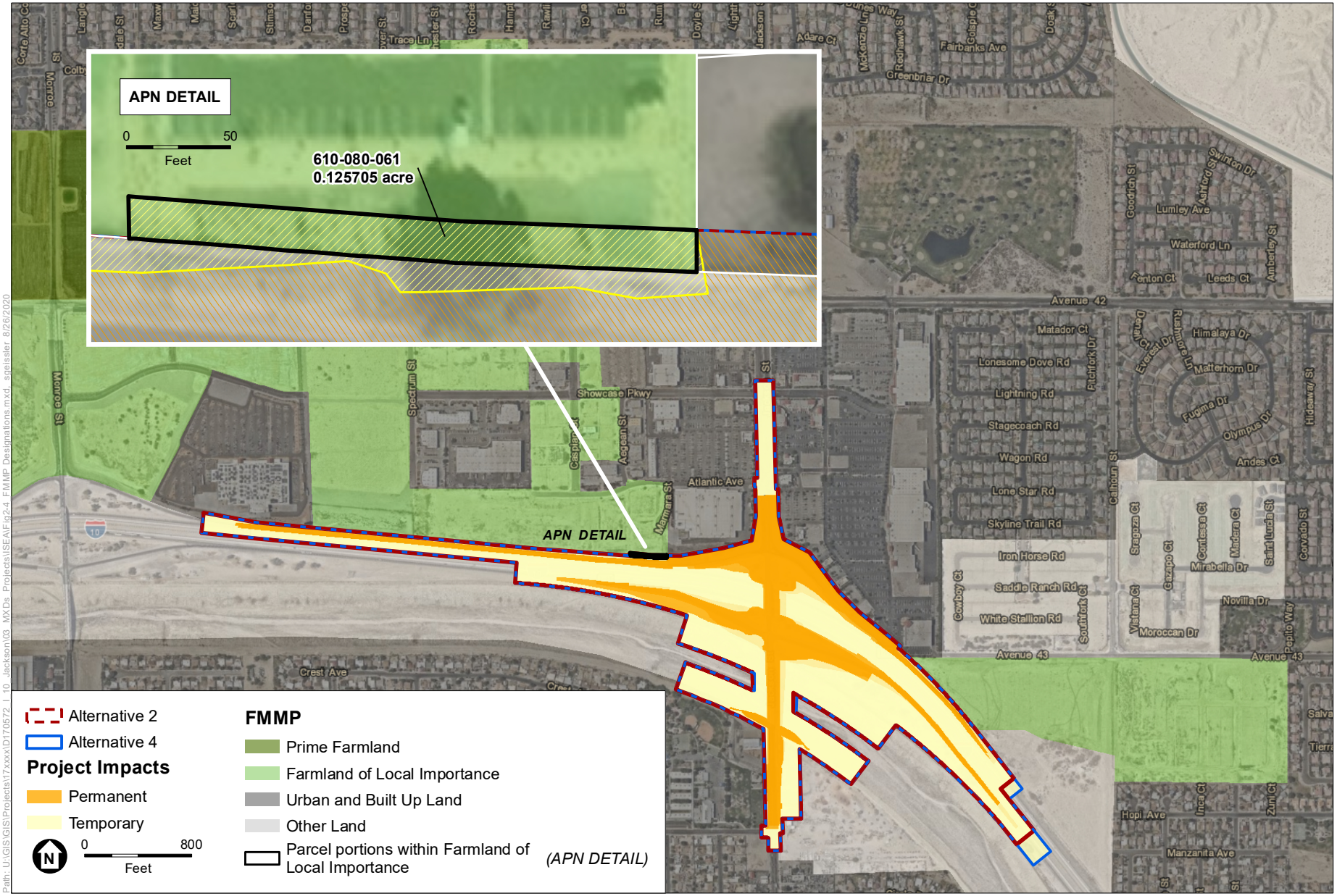
##### *Permanent Impacts*

No Williamson Act lands would be affected by either Build Alternative and none exist within the immediate project vicinity. Additionally, there is no Prime Agricultural Farmland, and no permanent partial acquisitions of "*Farmlands of Local Importance*" would occur. There will be no permanent impacts to any farmlands as a result of operation of either Build Alternative.

### Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization or minimization measures are required as a result of the temporary impact to Farmlands of Local Importance as the current parcel is currently commercial in nature and the Build Alternatives would temporarily use less than 5 percent of the parcel.

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SOURCE: Transystems 6/11/2019; California Dept of Conservation 2016

I-10 / Jackson Street Interchange Project

**Figure 2-3**

Farmland Monitoring and Mitigation Program (FMMP) Designations

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## 2.1.4 Growth

### 2.1.4.1 Regulatory Setting

The Council on Environmental Quality (CEQ) regulations, which established the steps necessary to comply with National Environmental Policy Act (NEPA) of 1969, require evaluation of the potential environmental effects of all proposed federal activities and programs. This provision includes a requirement to examine indirect effects, which may occur in areas beyond the immediate influence of a proposed action and at some time in the future. The CEQ regulations (40 Code of Federal Regulations [CFR] 1508.8) refer to these consequences as indirect impacts. Indirect impacts may include changes in land use, economic vitality, and population density, which are all elements of growth.

The California Environmental Quality Act (CEQA) also requires the analysis of a project's potential to induce growth. The CEQA Guidelines (Section 15126.2(d)) require that environmental documents "… discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment …"

#### *Methodology*

A "First-Cut Screening" was conducted pursuant to the Department's Guidance for Preparers of Growth related, Indirect Impact Analyses, to assess what influence implementation of the I-10/Jackson Street Interchange Project might have on growth and development in the area. The following is based on the above referenced guidance.

**How, if at all, does the project potentially change accessibility?**

Construction of the project would not result in long-term changes to travel times, travel cost, or accessibility to employment, businesses and/or services in the immediate project location or project vicinity. In addition, during construction of the project, no vacant lands that are currently inaccessible would become permanently accessible and, therefore, more likely to be developed following construction of the project.

Workforce requirements associated with the construction of the project are expected to result in an influx of workers to the local area. However, the 2019 SCAG Profile of the City of Indio shows that construction jobs in Indio have declined by approximately 1,500 jobs since 2007, so the potential influx of workforce would be adequately supported by the City. Regardless, any workforce influx would be temporary in nature and would cease upon completion of project construction.

The project is located in a semi-urban desert region with an expanding population. The land uses south of the existing interchange include the Coachella Valley Stormwater Channel and also a park and school located on the southwestern portion of the project, and vacant undeveloped lands make up the predominant land uses adjacent to southeastern quadrant of the existing interchange. The land uses adjacent to the northern quadrants are mostly developed with some retail/commercial. The parcels within the project limits from which right-of-way is anticipated to potentially be acquired are currently largely retail/commercial, vacant lands, a small sliver of the school, and a single-family residence.

Although the project would improve traffic operations at the interchange area, the project would not create new opportunities for access to areas that are not already afforded access under the existing conditions at the interchange; therefore, while traffic operations at the I-10/Jackson Street interchange would be improved with implementation of the project, the project would not substantially change accessibility to adjacent and nearby properties.

**How, if at all, do the project type, project location, and growth-pressure potentially influence growth?**

The project involves the reconstruction of the existing I-10/Jackson Street interchange to make it more efficient and to reduce traffic and associated congestion in the immediate project area. The existing interchange plays a key role for tourists and commercial traffic (e.g., goods movement) along the larger I-10 transportation corridor. The existing interchange also serves local and regional traffic accessing residential, retail, and industrial facilities in relative proximity to the interchange.

Continued growth in the region is anticipated in the future, and further development of residential, commercial/retail, and industrial uses will create an even greater need for improvement of the operation (e.g., LOS) of the interchange. Forecasted increased traffic volumes, in conjunction with the current capacity of the existing interchange, are expected to result in the interchange ramps and associated intersections operating at unacceptable levels of service by the year 2045 for PM Peak Hours. Under Design Year (2045), eastbound I-10 study facilities would operate acceptably under the No-Build Alternative. Westbound I-10 would have insufficient capacity for the 2045 traffic demand, and consequently result in deficient operations of LOS F and LOS E at all the study segments during PM peak hours. These findings are consistent with the I-10 Transportation Concept Report (TCR) prepared by the Department's in 2017, which found that I-10 would operate under deficiency by 2040 in the Jackson Street study area. Under Build Alternative 2, the Jackson Street/I-10 Eastbound Ramp terminal intersection is improved from LOS E to LOS C, while the Jackson Street/I-10 Westbound Ramp terminal intersection is improved from LOS C to LOS B. All other intersections on Jackson Street continue to operate acceptably under Build Alternative 2. Under Build Alternative 4, the Jackson Street/I-10 Eastbound Ramp terminal intersection is improved from LOS E to LOS B, while the Jackson Street/I-10 Westbound Ramp terminal intersection is improved from LOS C to LOS B. All other intersections on Jackson Street continue to operate acceptably under Build Alternative 4.

Under the No-Build Alternative, all study intersections except for the Jackson Street/Avenue 42 intersection operate unacceptably at LOS E or LOS F. Under Build Alternative 2, all intersections along Jackson Street are improved to acceptable operations, including the eastbound and westbound ramp terminal intersections. The Jackson Street/I-10 Westbound Ramps intersection is improved to LOS B, while the Jackson Street/I-10 Eastbound Ramps intersection is improved to LOS C. Under Build Alternative 4, all intersection operations along the Jackson Street corridor are improved to acceptable operations. At the Jackson Street/I-10 Westbound Ramps intersection operations would be improved from LOS E under the No-Build Alternative to LOS B. Similar improvements occur at the Jackson Street/Eastbound Ramps intersection which would be improved from LOS F under the No-Build Alternative to LOS C.

Under both Build Alternatives, no queueing was found to exceed storage capacity under Design Year (2045), during the AM and PM peak hours.

The systemwide performance measures applied for the Opening Year (2045) analysis include travel time, travel speeds, number of vehicle served by the study network, and vehicle-hours-delay (VHD). Existing Jackson Street and corresponding I-10 ramps contain geometric deficiencies. Without planned improvements, it is anticipated that increased daily traffic will increase delays and diminish operations within the interchange related to these geometric deficiencies.

While the project, under either Build Alternative, would improve traffic operations at the interchange, it is not expected that the degree of improvement in traffic operations would result in a change in traffic patterns or travel behavior such that it would result in development seeking to locate (or relocate) in the immediate vicinity of the interchange as compared to the existing interchange conditions.

The growth pressure within the project area is considered to be high when existing and future land uses are taken into consideration. The City of Indio Draft General Plan Place Types Map identifies the future intended use of land on every parcel in the City (City of Indio, 2018). The figure also identifies the locations where growth and development is expected (or desired) to occur and locations that should be protected from future development. The areas north of the interchange are designated as "Transformation/Major Change" which is defined as an "area where the community wants to actively facilitate significant change in the short to middle term and these areas may look very different in a short period of time and these are areas where the City of Indio may want to prioritize staff and financial resources or actively encourage new private development". The areas south of the interchange are designated as "Preserve/Minor Change" which are defined as "areas of the City where the general character of the area will remain the same but improvement is desired in limited ways."

The project is located on an existing interstate facility near existing roadways, providing access to existing development. The project has been designed to accommodate present and projected increases in traffic volumes, as a result of previously implemented and planned development in the area; therefore, project-related growth is not anticipated as a result of the project.

**Is project-related growth reasonably foreseeable under NEPA?**

Under NEPA, reasonably foreseeable events are those that are likely to occur or are probable, rather than those that are merely possible. Development in the I-10/Jackson Street Interchange area is governed by the City of Indio's General Plan. Although the project would provide operational improvements to local access, it is not expected that the project would impact growth at the local or regional level.

**If there is project-related growth, how, if at all, will that impact resources of concern?**

The project is not expected to accelerate or otherwise influence growth beyond what is already expected in the project area.

Based on the above, no further analysis with respect to growth is required for this project.

## 2.1.5 Community Character and Cohesion

### 2.1.5.1 Regulatory Setting

National Environmental Policy Act (NEPA), enacted in 1969, as amended, established that the federal government use all practicable means to ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 USC 4331[b][2]). The Federal Highway Administration (FHWA) in its implementation of NEPA (23 USC 109[h]) directs that final decisions on projects are to be made in the best overall public interest. This requires taking into account adverse environmental impacts, such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

Under California Environmental Quality Act (CEQA), an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the physical change is significant. Since this project would result in physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the project's effects.

### 2.1.5.2 Affected Environment

Community cohesion refers to the degree of interaction among the individuals, groups, and institutions that make up the community. Community cohesion takes into consideration access and linkages, community facilities, and local businesses in the surrounding area that provide opportunities for residents to gather and interact.

The analysis included these considerations to determine whether construction or operation of either Build Alternative 2 or 4 would result in a disruption or division of established communities, or community cohesion:

- Physical division of an established neighborhood
- Disruption in access to community facilities or services
- Physical deterioration of communities or community facilities
- Changes to overall quality of life in the community caused by secondary impacts from the project, such as increased traffic, noise, or air quality impacts

In addition, there are demographic indicators that correlate to higher degrees of community cohesion. These include:

- The percent of the population that is ethnically homogenous
- The percentage of housing units that are owner-occupied
- The percentage of the population that is age 65 or older

The study area for the project is included in the SCAG Regional Council District 66. The 2010 census data profile for Indio includes the populations and communities that are most likely to experience adverse effects from physical improvements associated with the project. The study area for the project includes Census Tracts 452.09, 452.16, 452.17, 453.02, 453.03, and 453.04 located within the city of Indio (refer to Figure 2-4, Community Study Area).

#### *Race and Ethnicity*

Within the study area, land uses are a combination of vacant land, residential, commercial, public, open space, existing roadway/highway facilities, and the Coachella Valley Stormwater Channel. Persons

identifying as Hispanic/Latino make up the largest ethnic group in the study area (71 percent), the City (68 percent) and County (45 percent). As such, the percentage of Hispanic/Latino persons in the study area is comparable to that in the City and higher than the percentages in the County, indicating a predominately minority community. Non-Hispanic whites are the next largest racial/ethnic group in the study area, accounting for 25 percent of the population, compared with 27 percent in the City and 40 percent in the County. Race and ethnicity information for the study area, the City, and Riverside County is provided in the Table 2-5 below.

### *Housing*

Housing prices in California are higher than the national averages according to the 2013-2017 American Community Survey 5-Year Estimates conducted by the U.S. Census Bureau. The median value for owner-occupied homes in the United States was $193,500, versus California's median value of $443,400 (U.S. Census Bureau, 2019). Housing prices are lower in Riverside County with median home values at $304,500, and housing prices are even lower in the City of Indio at $247,900, when compared to California as a whole. Housing costs in the City of Indio are just above the national average. As housing, availability and cost, can play a major role in people's choice of residential location, people will live where they can afford to and commute to work. A lack of affordable housing opportunities can influence the need for commuters to travel long distances to work. Housing prices in the City of Indio are very low compared to other areas in the region, which is a contributor to the growth conditions that currently exist, and are expected to continue in the future.

The average household size in the study area is 3.5 persons. This is above the average household size for the City (3.21 persons) and slightly above the County average (3.14 persons). The occupancy and vacancy rates of the study area are comparable to those of the County; however, the study area has a much higher percentage of occupied housing units (88.1 percent) compared with the City (80.7 percent) and lower percentage of vacant housing units (11.9 percent) compared to the City (19.3 percent). The study area has a slightly lower percentage of owner-occupied housing units (65.4 percent) compared with the city (65.3 percent) and County (67.4 percent) and a comparable percentage of renter occupied units (34.5 percent) than the City (34.7 percent) and County (32.6 percent). The housing characteristics of the study area, City of Indio and Riverside County, are listed in the Table 2-6 below.

**Table 2-5 Housing Characteristics**

| | Total Households | Average Household Size | Total Housing Units | Housing Units | | Occupied Housing Units | |
|---|---|---|---|---|---|---|---|
| | | | | Occupied | Vacant | Owner Occupied | Renter Occupied |
| County of Riverside | 686,260 | 3.14 | 800,707 | 85.7% | 14.3% | 67.4% | 32.6% |
| City of Indio | 23,378 | 3.21 | 28,971 | 80.7% | 19.3% | 65.3% | 34.7% |
| Census Tract 452.09 | 1,598 | 3.40 | 1,714 | 93.2% | 6.8% | 40% | 60% |
| Census Tract 452.16 | 875 | 2.06 | 1,197 | 73.1% | 26.9% | 90.6% | 9.4% |
| Census Tract 452.17 | 1,649 | 3.78 | 1,818 | 90.7% | 9.3% | 68.4% | 31.6% |
| Census Tract 453.04 | 2,460 | 3.52 | 2,839 | 86.7% | 13.3% | 82.4% | 17.6% |
| Census Tract 453.03 | 716 | 4.24 | 807 | 88.7% | 11.3% | 37% | 62% |
| Census Tract 453.02 | 1,050 | 4.25 | 1,094 | 96% | 4% | 73.7% | 26.3% |
| Study Area* | 8,348 | 3.5 | 9,469 | 88.1 | 11.9% | 65.4% | 34.5% |

* Study area includes Census Tract 452.09, 452.16, 452.17, 453.02, 453.03, and 453.04

Source: U.S. Census Bureau, 2010b. Census 2010 Summary File 1, Profile of General Population and Housing Characteristics: 2010.

**Table 2-6 Race and Ethnicity**

| | Total Population | Hispanic/ Latino (%) | White (%) | Black or African American (%) | Native American (%) | Asian (%) | Native Hawaiian/ Pacific Islander (%) | Other Race (%) | Two or More Races (%) |
|---|---|---|---|---|---|---|---|---|---|
| County of Riverside | 2,189,641 | 45 | 40 | 6 | <1 | 6 | <1 | >1 | 2 |
| City of Indio | 76,036 | 68 | 27 | 2 | <1 | 2 | <1 | >1 | 1 |
| Census Tract 452.09 | 5,441 | 86 | 11 | 1 | <1 | 1 | <1 | >1 | 1 |
| Census Tract 452.16 | 1,804 | 16 | 78 | 3 | <1 | 2 | 0 | >1 | 1 |
| Census Tract 452.17 | 6,225 | 79 | 17 | 2 | <1 | 2 | <1 | >1 | <1 |
| Census Tract 453.04 | 8,675 | 58 | 33 | 2 | <1 | 4 | <1 | >1 | 2 |
| Census Tract 453.03 | 3,035 | 94 | 4 | 1 | <1 | <1 | <1 | >1 | <1 |
| Census Tract 453.02 | 4,459 | 91 | 7 | 1 | <1 | <1 | <1 | >1 | <1 |
| Study Area* | 29,639 | 71 | 25 | 2 | <1 | 1 | <1 | >1 | <1 |

* Study area includes Census Tract 452.09, 452.16, 452.17, 453.02, 453.03, and 453.04.

Source: U.S. Census Bureau, 2010a Census. Universe: Total population 2010 Census Summary File 1.




SOURCE: Riverside County GIS; ESRI; US Census 2010

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**Figure 2-4**
Community Study Area

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### *Income and Poverty*

According to the U.S. Census Bureau, the labor force for the study area is 15,721 persons, the labor force for the City is 39,972 persons, and the labor force for the County is 1,086,109 persons. The unemployment rate in the study area is 14 percent, slightly higher than the unemployment rate in the City (10 percent) and the County (9.9 percent). This trend also corresponds to the poverty level data for the study area, City, and County. The percentage of all people below the poverty level is 21.9 percent in the study area, 18.1 percent in the City, and 12.9 percent in the County. The study area's median household income ($49,339) is almost identical to that of the City ($49,951), but lower than the County ($60,807). The median incomes for the study area, city, and county are higher than the 2019 federal annual income poverty guideline threshold of $25,750 for a household of four, as identified by the U.S. Department of Health and Human Services (2019). The economic data are summarized in Table 2-7.

**Table 2-7 Economic and Income**

| | Total in Civilian Labor Force | Unemployment Rate | Median Household Income | Persons below Poverty Level |
|---|---|---|---|---|
| County of Riverside | 1,086,109 | 9.9% | $60,807 | 12.9% |
| City of Indio | 39,972 | 10% | $49,951 | 18.1% |
| Census Tract 452.09 | 2,713 | 18.2% | $28,983 | 30.8% |
| Census Tract 452.16 | 502 | 16.5% | $61,389 | 12.1% |
| Census Tract 452.17 | 4,013 | 13.3% | $51,360 | 20.6% |
| Census Tract 453.04 | 4,606 | 5.1% | $86,387 | 11.2% |
| Census Tract 453.03 | 1,945 | 18.9% | $23,884 | 30% |
| Census Tract 453.02 | 1,942 | 15.1% | $44,031 | 26.6% |
| Study Area* | 15,721 | 14% | $49,339 | 21.9% |

* Study area includes Census Tract 452.09, 452.16, 452.17, 453.02, 453.03, and 453.04.

Sources:

U.S. Census Bureau, 2019. 2013-2017 American Community Survey 5-Year Estimates. Employment Status for the Population 16 Years and Over.

U.S. Census Bureau, 2019. Median Household Income in the Past 12 months (in 2017 inflation-adjusted dollars). Universe: Households. 2013-2017 American Community Survey 5-Year Estimates.

U.S. Census Bureau, 2019. Poverty Status in the Past 12 months. 2013-2017 American Community Survey 5-Year Estimates

### *Age*

According to the U.S. Census Bureau, the median age in the county of Riverside is 35.5 years, which is very close to the City of Indio (36.4 years). The study area's median age is slightly higher at 38.5 years. The study area's percentage of person under 19 years of age is 28.5 percent, which is consistent with the City and County percentages (28.3 percent and 29 percent, respectively). The percentage of the study area's age of people 20 to 64 years old (52.6 percent) is lower than the City and County percentages (55.2 percent and 57.5 percent, respectively). However, the study area's percentage of persons 65 years and older is higher (18.5 percent) than that of the County (13.5 percent) and City's (16.5 percent). Age percentages in the study area are shown in Table 2-8 below.

**Table 2-8 Age Percentages in the Study Area**

| | Percent Under 19 Years of Age | Percentage 20 to 64 Years of Age | Percentage 65 and Over Years of Age | Median Age (years) |
|---|---|---|---|---|
| County of Riverside | 29% | 57.5% | 13.5% | 35.5 |
| City of Indio | 28.3% | 55.2% | 16.5% | 36.4 |
| Census Tract 452.09 | 31.4% | 58% | 10.6% | 30.0 |
| Census Tract 452.16 | 8.8% | 29.3% | 61.9% | 68.5 |
| Census Tract 452.17 | 37.2% | 56.2% | 6.6% | 30.1 |
| Census Tract 453.04 | 30.4% | 60.3% | 9.3% | 35 |
| Census Tract 453.03 | 36.2% | 55.3% | 8.5% | 29.6 |
| Census Tract 453.02 | 29.7% | 56.5% | 13.8% | 37.9 |
| Study Area* | 28.5% | 52.6% | 18.5% | 38.5 |

* Study area includes Census Tract 452.09, 452.16, 452.17, 453.02, 453.03, and 453.04.
Sources:
U.S. Census Bureau, 2019. 2013-2017 American Community Survey 5-Year Estimates. Age and Sex.

### *Community Cohesion Conclusion*

The demographic indicators that correlate to higher degrees of community cohesion are as follows:

- The percent of the population that is ethnically homogenous
- The percentage of housing units that are owner-occupied
- The percentage of the population that is age 65 or older

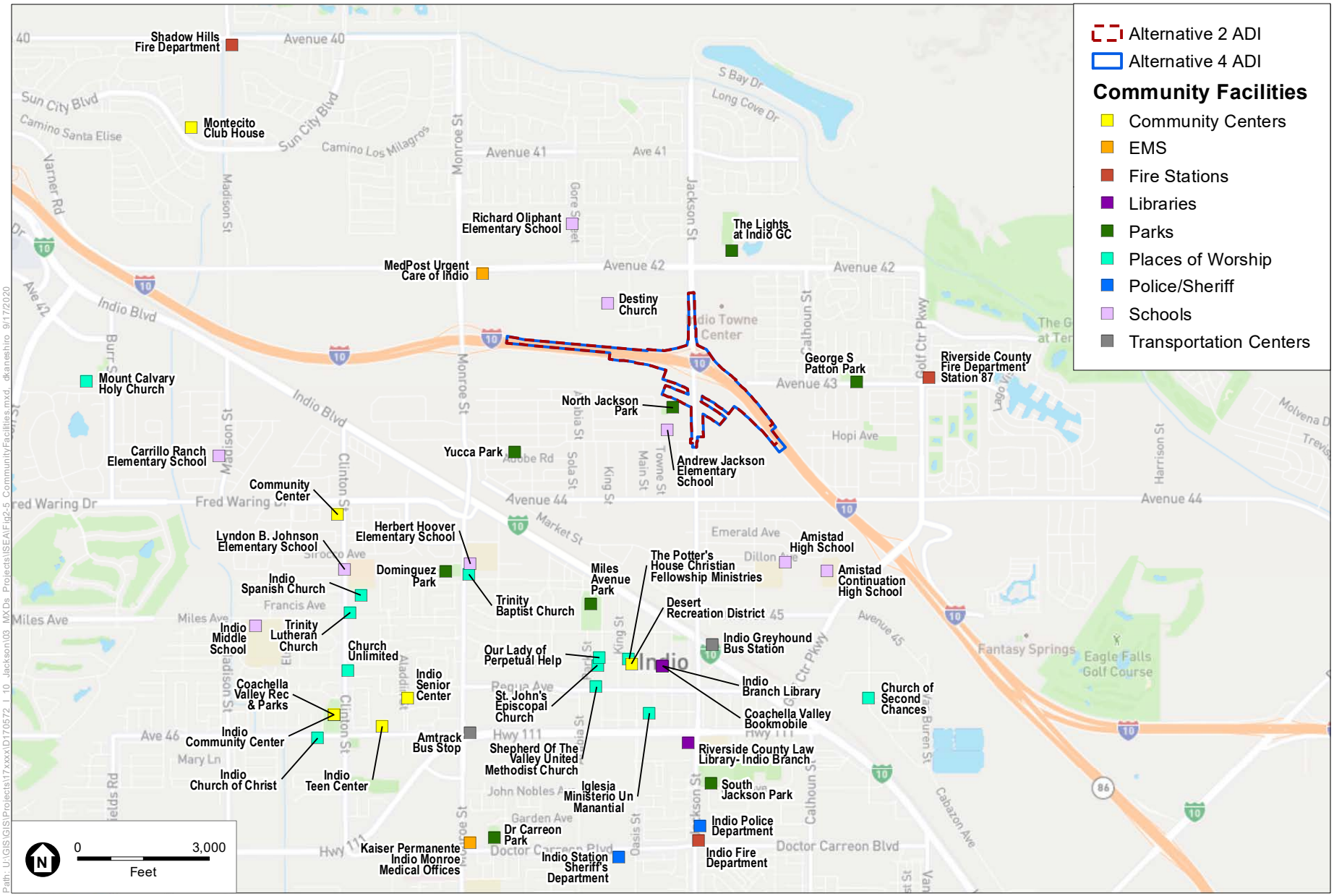
The study area identifies as 71 percent Hispanic/Latino with the second largest demographic being white at 25 percent. All other ethnicities are represented in the population at 1 percent or less. This shows a largely homogenous population that identifies with one or the other of the main ethnicities found in the City and study area.

The percentage of owner-occupied homes in the study area is 64.36 percent, which is on par with that of the City (65.3 percent) and County (67.4 percent). These are notably higher than the percentage of owner-occupied homes in California, which is 55.9 percent, but similar to the that of the United States as a whole (65.1 percent). Therefore, the study area shows an average to relatively high percentage of owner-occupied houses, which is another indicator of a higher degree of community cohesion.

Lastly, the age distribution of the study area is very similar to that of the County as a whole, but the amount of persons considered elderly, aged 65 and older, is slightly higher than that of the City and County. The study area also has a slightly larger average household size of 3.5 persons, when compared to the City (3.21) and County (3.14). This shows that the study area has a higher concentration of families than that of the County or City. Given the similarity of ages and household size within the study area, the indicator shows a high degree of cohesion.

### *Community Services*

Community services and facilities are an important aspect of neighborhood identity and can be critical resources for the community. Occasionally, transportation projects may affect community services, either positively or negatively, thereby affecting the character and cohesion of a community, either temporarily or permanently. The community facilities and services near the project site are listed in the Table 2-9 and shown on Figure 2-5.




SOURCE: Mapbox Streets, 2020.

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**Figure 2-5**

Community Facilities

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**Table 2-9 Community Facilities and Services**

| Type | Name | Address | Distance from Project (miles) |
|---|---|---|---|
| Fire/EMS | Indio Station #5 | 42-900 Golf Center Parkway, Indio | 0.69 |
| | Indio Station #4 | 81-025 Avenue 40, Indio | 1.73 |
| | Riverside County Fire Department Station #87 | 42900 Golf Center Parkway Indio | 0.69 |
| | Kaiser Permanente Indio Monroe Medical Offices | 46900 Monroe Street, Indio | 1.96 |
| | MedPost Urgent Care of Indio | 82-151 Avenue 42 #100, Indio | 0.29 |
| Police/Sheriff | City of Indio Police Department | 46800 Jackson Street, Indio | 1.64 |
| | Indio Station Sheriff's Department | 82695 Doctor Carreon Boulevard, Indio | 1.80 |
| Schools | Richard R. Oliphant Elementary School | 41633 Gore Street, Indio | 0.52 |
| | Carrillo Ranch Elementary School | 43775 Madison Street, Indio | 1.33 |
| | Andrew Jackson Elementary School | 82850 Kenner Avenue, Indio | >0.0005 |
| | Herbert Hoover Elementary School | 44300 Monroe Street, Indio | 0.97 |
| | Lyndon B. Johnson Elementary School | 44640 Clinton Street, Indio | 1.25 |
| | Indio Middle School | 81195 Miles Avenue, Indio | 1.65 |
| | Amistad High School | 83501 Dillon Avenue, Indio | 0.47 |
| Parks | Yucca Park | 43605 Yucca Street, Indio | 0.47 |
| | North Jackson Park | 43200 Towne Street, Indio | >0.05 |
| | The Lights at Indio Golf Course | 83040 Ave 42, Indio | 0.20 |
| | Dominguez Park | 81967 Crown Way, Indio | 1.02 |
| | Dr. Carreon Park | 82200 Dr. Carreon Boulevard, Indio | 1.89 |
| | George S. Patton Park | 83700 Avenue 43, Indio | 0.40 |
| | Miles Avenue Park | 82540 Miles Avenue | 0.81 |
| | South Jackson Park | 83318 Date Street, Indio | 1.45 |
| | Cahuilla Park | 83787 Hopi Avenue, Indio | 0.39 |
| Community Centers/Places of Worship | Senior Center | 45700 Aladdin St, Indio | 1.59 |
| | Teen Center | 81-678 Ave 46, Indio | 1.74 |
| | Coachella Valley Recreation and Parks | 45871 Clinton Street, Indio | 1.77 |
| | Community Center | 45871 Clinton Street, Indio | 1.70 |
| | Desert Recreation District | 45-305 Oasis St, Indio | 0.97 |
| | Indio Community Center | 45871 Clinton Street, Indio | 1.77 |
| | Montecito Club House | 80814 Sun City Blvd, Indio | 1.64 |
| | Church of Second Chances | 45-116 Commerce St, Indio | 1.13 |
| | Church Unlimited | 45520 Clinton St, Indio | 1.57 |
| | Iglesia Ministerio Un Manantial | 45835 Towne St, Indio | 1.16 |
| | Indio Church of Christ | 81377 Avenue 43, Indio | 1.89 |
| | Mount Calvary Holy Church | 80380 Ave 43, Indio | 1.82 |
| | Our Lady of Perpetual Help | 45299 Deglet Noor Street, Indio | 0.99 |
| | Shepherd of the Valley United Methodist Church | 45-501 Deglet Noor Street, Indio | 1.11 |
| | St. John's Episcopal Church | 45319 Deglet Noor Street, Indio | 1.03 |
| | The Potter's House Christian Fellowship Ministries | 45300 Oasis Street, Indio | 0.95 |
| | Trinity Baptist Church | 44550 Monroe Street, Indio | 1.01 |
| | Indio Spanish Church | 44800 Clinton Street, Indio | 1.26 |
| | Trinity Child Lutheran Church | 81500 Miles Avenue, Indio | 1.35 |

| Type | Name | Address | Distance from Project (miles) |
|---|---|---|---|
| Libraries | Indio Branch Library | 200 Civic Center Mall, Indio | 0.95 |
| | Coachella Valley Bookmobile | 200 Civic Center Mall, Indio | 0.95 |
| | Riverside County Law Library- Indio Branch | 82-995 CA-111 #102, Indio | 1.28 |
| Transportation Centers | Amtrack Bus Stop | 82120 Highway 111, Indio | 1.56 |
| | Indio Greyhound Bus Station | 83100 Indio Blvd | 0.86 |

Sources:

Desert Sands Unified School District, 2019. My School Location. Website: <http://www.myschoollocation.com/desertsandsusd1819v2/>. Accessed on: May 21, 2019.

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### 2.1.5.3 Environmental Consequences

#### *Temporary*

*No-Build Alternative*

Under the No-Build Alternative, the project improvements would not occur; therefore, there would be no short-term direct or indirect adverse impacts on community character or cohesion under this alternative.

*Build Alternatives 2 and 4*

*Emergency Service Providers (Fire/EMS/Police/Sheriff)*

As described in Table 2-9, the nearest emergency service provider (i.e., Indio Station #5) is located approximately 0.69 miles from the Build Alternatives. No adverse indirect short-term impacts on emergency service providers are anticipated during construction of the Build Alternatives. A TMP as identified in measure **TRA-1** referenced in Section 2.1.9 will be implemented to ensure that emergency service providers are provided adequate access through the I-10/Jackson Street Interchange Improvement Project area during construction of the project.

*Schools*

Four schools are located within one mile of the Build Alternatives, with the closest school (Andrew Jackson Elementary School) located immediately adjacent to the proposed project area (refer to Table 2-9). While construction of the I-10/Jackson Street Interchange Improvement Project may result in temporary, intermittent impacts associated with a construction zone, no adverse indirect short-term impacts on schools are anticipated during construction of the Build Alternatives. Construction-related impacts would be minimized through implementation of the TMP (refer to measure **TRA-1**).

*Parks/Community Centers/Libraries*

As described in Table 2-9, there are five parks located within 0.50 mile of the Build Alternatives, with the closest park (North Jackson Park) located approximately 0.05 mile from the proposed project area. The

nearest community center (Desert Recreation District) is located 0.97 mile from the Build Alternatives; all other community centers are located over a mile from the Build Alternatives. The nearest libraries (Indio Branch Library and Coachella Valley Bookmobile) are located 0.95 mile from the Build Alternatives. While construction of the I-10/Jackson Street Interchange Improvement Project may result in temporary, intermittent impacts on parks, community centers, and libraries associated with a construction zone, no adverse indirect short-term impacts on such facilities are anticipated during construction of the Build Alternatives. Construction-related impacts would be minimized through implementation of the TMP (refer to measure **TRA-1**).

### *Places of Worship*

There are two places of worship within one mile of the Build Alternatives, with the closest (The Potter's House Christian Fellowship Ministries) less than 0.95 mile from the proposed project area. Construction of the project may result in temporary, intermittent impacts on places of worship associated with a construction zone; however, no adverse indirect short-term impacts on such community facilities are anticipated during construction. Construction-related impacts would be minimized through implementation of the TMP (refer to measure **TRA-1**).

### *Transportation Centers*

The Indio Greyhound Bus Station is the nearest transportation center and is located 0.86 mile from the Build Alternatives (refer to Table 2-9). Construction of the I-10/Jackson Street Interchange Improvement Project may result in temporary, intermittent impacts on the referenced transportation centers during construction; however, no adverse indirect short-term impacts on such facilities are anticipated. Construction-related impacts would be minimized through implementation of the TMP (refer to measure **TRA-1**).

Short-term noise and air quality impacts on some local neighborhoods and community services/facilities may occur during the construction of the project. However, these indirect construction-related impacts would be minimized with implementation of measure **AQ-1**, referenced in Section 2.2.6, and measures **NOI-1** and **NOI-2**, referenced in Section 2.2.7. Therefore, no adverse indirect short-term impacts on established residences and businesses in the I-10/Jackson Street Interchange Improvement Project area are anticipated during construction of the Build Alternatives.

### *Transportation Routes*

Sunline Transit Agency provides bus service within the project area. The service is available seven days a week. In addition, they provide weekly service to the local middle and high schools in the City of Indio.

The Desert Sands Unified School District provides bus transportation to schools located in the vicinity of the proposed project (refer to Table 2-9 and Figure 2-5). The school district operates buses Monday through Friday between 6:30 a.m. and 7:55 a.m., and between 1:00 p.m. and 3:10 p.m. (Desert Sands Unified School District 2020).

Construction of the I-10/Jackson Street Interchange Improvement Project may result in temporary, intermittent impacts on the traveling public through the project corridor that are typically associated with a construction zone; however, no adverse, indirect, short-term impacts on the traveling public are anticipated during construction. Public transportation service would be maintained during construction through the I-10/Jackson Street Interchange Improvement Project area. Construction-related impacts would be minimized through implementation of the TMP (refer to measure **TRA-1**).

### *Permanent*

#### *No-Build Alternative*

Under the No-Build Alternative, the project improvements would not occur; therefore, there would be no long-term direct or indirect adverse impacts on community character or cohesion under this alternative.

#### *Build Alternatives 2 and 4*

##### *Emergency Service Providers (Fire/EMS/Police/Sheriff)*

The Build Alternatives would not directly affect emergency service facilities (whether through property acquisition or otherwise); therefore, there would be no adverse impact in this regard. The I-10/Jackson Street Interchange Improvement Project would improve traffic operations in the project area and thus provide a benefit to emergency services.

##### *Schools*

The I-10/Jackson Street Interchange Improvement Project would not directly affect schools; therefore, there would be no adverse impact in this regard. The Build Alternatives would improve traffic operations in the project area and thus provide a benefit.

##### *Parks/Community Centers/Libraries*

The Build Alternatives would not directly affect any parks, community centers, or libraries; therefore, there would be no adverse impact in this regard. The I-10/Jackson Street Interchange Improvement Project would improve traffic operations in the project area and thus provide a benefit to such facilities.

##### *Places of Worship*

The I-10/Jackson Street Interchange Improvement Project would not directly affect places of worship; therefore, there would be no adverse impact in this regard. The Build Alternatives would improve traffic operations in the project area and thus provide a benefit.

##### *Transportation Centers*

The Build Alternatives would not directly affect any transportation centers; therefore, there would be no adverse impact in this regard. The I-10/Jackson Street Interchange Improvement Project would improve traffic operations in the project area and thus provide a benefit to such facilities.

##### *Transportation Routes*

As further detailed in Section 2.1.9 (Traffic and Transportation/Pedestrian and Bicycle Facilities) of this IS/EA, the I-10/Jackson Street Interchange Improvement Project would improve traffic operations in the project area and thus provide an operational benefit to transportation services in the area. Therefore, there would be no adverse impact in this regard.

##### *Community Character and Cohesion*

Although the study area for both Build Alternatives 2 and 4 show a high degree of community cohesion, operation of the project would not impact the level of community cohesion that area experiences. The project would not directly or indirectly result in the construction of new housing that would cause a direct change in population or community composition, nor would it directly or indirectly have an adverse impact on population characteristics, housing mixture, economic conditions, or supporting community services within the study area. Any potential changes to the communities that comprise the study area would result from planned county and city growth and would occur with or without the project.

Implementation of either Build Alternative would not adversely directly or indirectly affect community cohesion because the freeway already exists and the nearby residential uses are mixed with commercial, industrial, and other land use types. The improvements associated with either Build Alternative would reduce existing and projected future traffic congestion along I-10 within the project limits and would provide improved mobility within the existing neighborhoods.

The project would not divide neighborhoods, separate residents from community facilities, directly encourage or discourage growth, create negative changes to existing quality of life, or increase urbanization or isolation. Therefore, no long-term direct or indirect adverse effects on community cohesion would occur with the implementation of the Build Alternatives.

#### 2.1.5.4 Avoidance, Minimization, and/or Mitigation Measures

Construction activities associated with either Build Alternative would result in indirect short-term impacts related to noise to surrounding neighborhoods. To minimize potential short-term adverse impacts, measure **AQ-1**, referenced in Section 2.2.6, Air Quality, measures **NOI-1** and **NOI-2** in Section 2.2.7, Noise, and measure **TRA-1** in Section 2.1.9, Traffic and Transportation/Pedestrian and Bicycle Facilities, would be implemented during the construction of either of the Build Alternatives.

## 2.1.6 Relocations and Real Property Acquisition

### 2.1.6.1 Regulatory Setting

The Department's Relocation Assistance Program (RAP) is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act), and Title 49 Code of Federal Regulations (CFR) Part 24. The purpose of the RAP is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. Please see Appendix C for a summary of the RAP.

All relocation services and benefits are administered without regard to race, color, national origin, persons with disabilities, religion, age, or sex. Please see Appendix B for a copy of the Department's Title VI Policy Statement.

### 2.1.6.2 Affected Environment

The current I-10/Jackson interchange configuration is a diamond interchange, with signal control at the ramp termini. The project would reconstruct and widen Jackson Street at I-10, including the existing on- and off-ramps. The interchange is a major access point for existing residential and retail sites.

Current land uses within the project area reflect development with commercial, limited industrial, recreational, and vacant land uses– including the existing I-10/Jackson Street interchange, Jackson Street, vacant land, open space (Whitewater Channel), and more vacant lots and commercial/retail businesses.

The northeastern quadrant of the project is primarily commercial, industrial and single-family residential. The southeast and southwest quadrants are mostly open space (Whitewater River), single-family residential, general office areas, a school/educational facility, and a California Army National Guard armory building.

### 2.1.6.3 Environmental Consequences

#### *Temporary*

*No-Build Alternative*

Under the No-Build Alternative, the project would not be constructed and would not impact adjacent properties during the construction period.

*Build Alternatives 2 and 4*

Build Alternatives 2 and 4 would temporarily impact vacant land in the northwest, northeast and southwest quadrants, as well as some commercial areas. Approximately 16.684 acres for Alternative 2 and 16.366 acres for Alternative 4 would be required for TCEs during construction. TCEs would be required during the construction period to facilitate access to construction work areas. Most of these TCEs would occur on vacant land; however, TCEs would be needed at vacant lots, a single-family residence, commercial/retail properties along Jackson Street north of the existing interchange and vacant lots north of the existing interchange. A summary of TCEs is provided below in Table 2-10. A total of seven parcels would require TCEs under the project. Access to these properties would be maintained. Because impacts to these parcels would be temporary and the portions used of the parcels required during construction would be restored and returned to their owners following construction, impacts are considered less than significant under CEQA and not adverse under NEPA.

**Table 2-10 Potential Temporary Construction Easements**

| Parcel Number | Address | Existing Land Use | Alternative 2 | Alternative 4 |
|---|---|---|---|---|
| 692-060-001 | 43320 Jackson Street Indio, CA 92201 | Commercial | 0.413 acre | 0.413 acre |
| 692-060-002 | 43400 Jackson Street Indio, CA 92201 | Vacant | 0.565 acre | 0.565 acre |
| 692-500-001 | No Property Address Found | Vacant | 0.393 acre | 0.393 acre |
| 692-500-002 | No Property Address Found | Vacant | 0.351 acre | 0.351 acre |
| 692-500-003 | 43486 Jackson Street Indio, CA 92201 | Residential Single-Family Home | 0.037 | 0.037 |
| 610-080-009 | No Property Address Found | Vacant; Whitewater River | 6.43 acres | 6.43 acres |
| 692-060-004 | 43401 Monroe Street Indio, CA 92201 | Vacant; Whitewater River | 8.494 acres | 8.177 acres |
| Source: HNTB, RealQuest Professional, accessed April 10, 2019. | | | | |

### *Permanent*

#### *No-Build Alternative*

Under the No-Build Alternative, the existing interchange facility would be maintained. No acquisition of developed or undeveloped property would occur.

#### *Build Alternative 2*

Build Alternative 2 would partially acquire 16 parcels for a total of 1.69 acres (refer to Figure 1-3, Build Alternative 2). Alternative 2 would not require any full acquisitions from any parcels. See Table 2-11 below for potential right-of-way acquisitions and where TCE's will be required.

Permanent right-of-way impacts are anticipated north and south of the existing interchange. Planned property acquisitions would affect currently vacant lands, a school, commercial properties, and a single-family residence (see Table 2-11). The CVSC would also require right-of-way impacts due to new bridge construction, pier protection construction, and channel lining. Coordination with the CVWD would be required throughout the project. The potential permanent right-of-way acquisition anticipated for the project would not result in the displacement or relocation of existing residents, businesses, farms, non-profits, or government services in the project area. Impacts would be considered less than significant under CEQA and not adverse under NEPA.

#### *Build Alternative 4*

Build Alternative 4 would partially acquire 16 parcels, acquiring 2.059 acres (refer to Figure 1-4, Build Alternative 4). Alternative 4 would not require any acquisitions from any parcels. See Table 2-11 below for potential right-of-way acquisitions and where TCEs will be required.

Permanent right-of-way impacts would be similar to that of Build Alternative 2. The CVSC would also require right-of-way impacts due to new bridge construction, pier protection construction, and channel lining. Coordination with the CVWD would be required throughout the project. of existing residents, businesses, farms, non-profits, or government services in the project area Impacts would be considered less than significant under CEQA and not adverse under NEPA.

**Table 2-11 Potential Permanent Right-of-Way Acquisitions**

| APN Number | Address | Alternative 2 Partial or Full Take | Alternative 4 Partial or Full Take | Current Property Owner | Current Land Use |
|---|---|---|---|---|---|
| 610-080-009 | Indio, CA 92203 | TCE 6.43 acres | TCE of 6.43 acres | CVCWD | Vacant Land; Whitewater River |
| 610-080-042 | Indio, CA 92203 | Partial Acquisition of 0.05 acre | Partial Acquisition of 0.05 acre | Aljacks Retail Partners | Vacant Land |
| 610-230-002 | No address available. | Partial Acquisition of 0.014 acre | Partial Acquisition of 0.003 acre | City of Indio | N/A |
| 610-230-004 | No address available. | Partial Acquisition of 0.20 acre | Partial Acquisition of 0.195 acre | City of Indio | School |
| 692-050-018 | 42550 Jackson Street, #A, Indio, CA 92203-9792 | Partial Acquisition of 0.076 acre | Partial Acquisition of 0.076 acre | McDonalds USA, James Femino | Commercial |
| 692-050-019 | 42550 Jackson Street, #C, Indio, CA 92203-9793 | Partial Acquisition of 0.194 acre | Partial Acquisition of 0.194 acre | Panda Express Inc., Mario Lam Sheung Woo | Commercial |
| 692-050-020 | Indio CA 92203 | Partial Acquisition of 0.008 acre | Partial Acquisition of 0.008 acre | Indio Towne Center, James A. Padova | Vacant Land |
| 692-050-021 | 42750 Jackson Street, Indio, CA 92203-9798 | Partial Acquisition of 0.102 acre | Partial Acquisition of 0.102 acre | Tanklage Family Partnership | Commercial |
| 692-050-022 | 42750 Jackson Street, #B, Indio, CA 92203-9796 | Partial Acquisition of 0.076 acre | Partial Acquisition of 0.076 acre | Taco Bell Corporation, James Ronald Vernetti | Commercial |
| 692-050-024 | 42900 Jackson Street, Indio, CA 92203-9754 | Partial Acquisition of 0.083 acre | Partial Acquisition of 0.083 acre | Indio Towne Center, James A. Padova | Commercial |
| 692-050-027 | 42700 Jackson Street, Indio, CA 92203-9752 | Partial Acquisition of 0.191 acre | Partial Acquisition of 0.191 acre | Indio Towne Center, James A. Padova | Commercial |
| 692-060-001 | 43320 Jackson Street, Indio, CA 92201-2533 | Partial Acquisition of 0.245 acre; TCE 0.413 acre | Partial Acquisition of 0.245 acre; TCE 0.413 acre | James W Clause & Alexa E Clause | Commercial |
| 692-060-002 | 43400 Jackson Street, Indio, CA 92201-2534 | Partial Acquisition of 0.086 acre; TCE 0.565 acre | Partial Acquisition of 0.086 acre; TCE 0.565 acre | James W Clause & Alexa E Clause | Vacant Land |
| 692-060-004 | Indio, CA 92203 | Partial Acquisition of 0.294 acre; TCE 8.494 acres | Partial Acquisition of 0.68 acre; TCE 8.177 acres | CVCWD | Vacant Land; Whitewater River |
| 692-500-001 | Indio, CA 92201 | Partial Acquisition of 0.031 acre; TCE 0.393 acre | Partial Acquisition of 0.031 acre; TCE 0.393 acre | James W Clause & Alexa E Clause | Vacant Land |
| 692-500-002 | Indio, CA 92201 | Partial Acquisition of 0.030 acre; TCE 0.351 acre | Partial Acquisition of 0.030 acre; TCE 0.351 acre | James W Clause & Alexa E Clause | Vacant Land |
| 692-500-003 | 43486 Jackson Street, Indio, CA 92201-2534 | Partial Acquisition of 0.009 acre; TCE 0.037 acre | Partial Acquisition of 0.009 acre; TCE 0.037 acre | Edwin J Neumeyer | Single-Family Residence |
| **Total Acquisitions** | **NA** | **1.69 acres** | **2.059 acres** | **N/A** | **N/A** |
| **Total TCEs** | **NA** | **16.684 aces** | **16.366 acres** | **N/A** | **N/A** |
| Source: HNTB, RealQuest Professional, accessed April 10, 2019. | | | | | |

### 2.1.6.4 Avoidance, Minimization, and/or Mitigation Measures

Build Alternatives 2 and 4 are not expected to result in relocations, although minor property acquisitions would be required. All right-of-way acquisition would be completed consistent with the following measure.

**COM-1:** Right of way will be acquired in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as Amended, and property owners will receive just compensation and fair market value for their property.

## 2.1.7 Environmental Justice

### 2.1.7.1 Regulatory Setting

All projects involving a federal action (funding, permit, or land) must comply with Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, signed by President William J. Clinton on February 11, 1994. This EO directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based on the Department of Health and Human Services poverty guidelines. For 2019, this was $25,750 for a family of four.

All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have also been included in this project. The Department's commitment to upholding the mandates of Title VI is demonstrated by its Title VI Policy Statement, signed by the Director, which can be found in Appendix B of this document.

### 2.1.7.2 Affected Environment

To determine if environmental justice populations exist within the study area, the demographic profile of the study area was developed to identify the low-income and minority populations. For the purposes of this analysis, a census tract was considered to contain an environmental justice population if:

- The total minority population of the census tract block group(s) is more than 50 percent of the total population or disproportionately higher than that of the city and county, or
- The proportion of the census tract block group population that is below the federal poverty level exceeds that of the city where it is located.

The study area for the project included Census Tracts 453.02, 453.03, and 453.04 located within the City of Indio (refer to Figure 2-5, Community Study Area), which also includes the area of right-of-way acquisitions. As shown in Table 2-5, the proportion of the population composed of minority populations in the study area is 71 percent (64 percent Hispanic, 1 percent African American, 1 percent Asian, 1 percent Native American, 1 percent two or more races, and less than 1 percent for Native Hawaiian/Pacific Islander).Compared with approximately 60 percent in Riverside County (45 percent Hispanic, 6 percent African American, 6 percent Asian, 2 percent two or more races, and less than 1 percent for Native American and Native Hawaiian/Pacific Islander) and approximately 73 percent in the City (68 percent Hispanic, 2 percent African American, 2 percent Asian, 1 percent two or more races, and less than 1 percent for Native American and Native Hawaiian/Pacific Islander). As such, the population within the study area and thus the area where right-of-way will be required, includes environmental justice populations.

As shown in Table 2-7, the study area's median household income of $49,469 is greater than the 2018 federal annual income poverty guideline of $25,100 for a household of four, as identified by the U.S. Department of Health and Human Services.

The demographic indicators that correlate to higher degrees of community cohesion are as follows:

- The percent of the population that is ethnically homogenous
- The percentage of housing units that are owner-occupied
- The percentage of the population that is age 65 or older

The study area indicate a higher degree of community cohesion as compared to the County and City as a whole (see Section 2.14.1, Community Character and Cohesion).

In addition, there are also six community facilities (e.g., schools, parks, churches, libraries, medical centers) within 0.5 miles of the project site, as shown above in Table 2-9. This indicates a variety of community facilities that residents can walk to, which could contribute to a stronger sense of community. The study area identifies as 64 percent Hispanic/Latino with the second largest demographic being white at 29 percent. All other ethnicities are represented in the population at 1 percent or less. This shows a largely homogenous population that identifies with one or the other of the main ethnicities found in the City and study area.

### 2.1.7.3 Environmental Consequences

#### *Temporary*

*No-Build Alternative*

Under the No-Build Alternative no direct or indirect impacts would occur that could adversely affect environmental justice populations in the study area.

*Build Alternatives 2 and 4*

The technical analyses conducted for the project regarding air quality and noise and vibration indicate that no substantial adverse effects related to the areas of study are expected as a result of the project. However, these analyses do indicate that some potential effects are expected. The impacts identified in these analyses, as well as the measures to avoid or reduce them, are outlined below.

*Air Quality*

During construction, short-term degradation of air quality may occur because of the release of particulate emissions (fugitive dust), which would be generated by excavation, grading, hauling, and other activities related to construction. Emissions from construction equipment also are anticipated, including carbon monoxide (CO), oxides of nitrogen ($NO_X$), reactive organic gases (ROGs), directly emitted particulate matter (particulate matter less than 10 microns [$PM_{10}$] and particulate matter less than 2.5 microns [$PM_{2.5}$]), and toxic air contaminants (TACs) (also known as mobile-source air toxics [MSATs]), such as diesel exhaust particulate matter. Construction-related effects on air quality from most bridge projects are greatest during the site preparation phase because most emissions from heavy construction equipment are associated with excavating, handling, and transporting soils to and from the site.

Project emissions were compared to the local significance threshold values in Table 2-40 to determine the significance of project impacts. Table 2-40 shows that emissions from construction of the project would not exceed any applicable local significance threshold, and, therefore, could not result in a violation of an air quality standard. Air quality impacts resulting from construction of the project would be less than significant, so no mitigation measures or further analysis are required. However, the Department's Standard Specifications pertaining to dust control and dust palliative requirement are required to be part of all construction contracts and should effectively reduce and control emission impacts during construction. The provisions of the Department's Standard Specifications, Section 7-1.0F "Air Pollution Control" and Section 10 "Dust Control" require the contractor to comply with South Coast Air Quality Management District (SCAQMD) rules, ordinances, and regulations. SCAQMD Rule 403 (Fugitive Dust) specifies actions or control measures to prevent, reduce, or minimize PM emissions generated from construction, demolition, excavation, extraction, and other earthmoving activities. In addition, measures **AQ-1** through **AQ-10** would be incorporated into the project to avoid and minimize construction air quality impacts (refer to Section 2.2.6.4).

The proposed project would not create new sources of motor vehicle traffic but could induce some motorists to alter their existing routes. Air pollutant emissions would not increase overall due to operation of the project, and they could decrease if project improvements resulted in more efficient traffic operations. However, they could be marginally higher along Jackson Street if vehicle volumes increase. Operational impacts would be negligible, and no mitigation measures or further analysis are required.

### *Noise and Vibration*

Construction noise would be short-term, intermittent, and overshadowed by local traffic noise. Noise associated with construction is controlled by The Department's Standard Specifications, Section 14-8.02 (Noise Control). No substantial adverse noise impacts from construction are anticipated because construction would be conducted in accordance with The Department's Standard Specifications, Section 14.8-02.

### *Traffic and Transportation*

During construction, temporary impacts, such as lane closures, nighttime construction, and flagging, could occur. Construction is estimated to last approximately 30 months. A two-stage construction for both build alternatives is planned in order to minimize closures on Jackson Street. Jackson Street would remain open while the new bridge structure/overcrossing is constructed, generally to the east of the existing street. Traffic will be flipped to the newly constructed side once completed and the old bridge structure/overcrossing is demolished and reconstructed. Full freeway closures on I-10 would be required for the construction of bridge falsework over the freeway. Ramps would require closures at intersections with local roads. Short-term or weekend closures are expected for certain phases; however, no long-term street closures are anticipated or will be allowed. Proposed ramp closures will be identified during the project PS&E phase. Traffic-handling plans and stage-construction plans will be developed to minimize queue on the I-10 mainline. These efforts will include off-peak hour construction hours—primarily in the late night, early morning, and weekends—and clearly-marked detours near the closures.

Vehicle detours would affect equally both environmental justice populations within the study area as well as the general population within a few miles of the bridge. Generally pedestrian detours are more likely to affect environmental justice populations and those who rely on non-motorized travel within the study area. Pedestrian detours are not anticipated on Jackson Street as the bridge is expected to remain open while the new bridge is constructed. Measure **TRA-1**, referenced in Section 2.1.9, Traffic and Transportation/Pedestrian and Bicycle Facilities, would be incorporated into the project to avoid and minimize construction traffic impacts.

As described earlier, construction air quality, noise, and traffic impacts would be avoided with implementation of minimization and avoidance measures. However, for all other impacts: (1) the community, in general, would be similarly affected; (2) the effects of the project on environmental justice populations would not be more severe compared with the effects on non-environmental justice populations; and (3) the impacts on environmental justice populations would be similar to those on the general population.

### *Disproportionately High and Adverse Effects on Minority and Low-Income Populations*

Environmental justice considerations require an assessment of whether the effects of the project on minority and low-income groups could be considered disproportionately high and adverse, taking into consideration the minimization measures that have been recommended in the technical studies, the impact avoidance and minimization efforts that have occurred during the project planning and development process, and the potential benefits that would accrue within the community.

### *Efficacy of Minimization Efforts – Unavoidable Adverse Effects*

Of the temporary noise, air quality, and traffic construction effects identified in the technical analyses none are unavoidable adverse effects. All temporary impacts could be avoided or substantially minimized with implementation of the avoidance and minimization measures included in the project. Refer to measure **TRA-1** in Section 2.1.9, Traffic and Transportation/Pedestrian and Bicycle Facilities, measures **AQ-1** through **AQ-12** in Section 2.2.5, Air Quality, and measures **NOI-2** and **NOI-3** in Section 2.2.6, Noise.

### *Project Benefits*

Implementation of the project would unquestionably have offsetting benefits that would accrue within the community. Once the project is completed, the operational performance of the I-10 interchange is expected to improve, resulting in a beneficial impact. A critical interchange in the local and regional circulation system would be restored, which is beneficial to the community.

### *Potential Disproportionately High and Adverse Effects*

The determination of whether or not the effects of the proposed project are disproportionately high and adverse depends on whether: (1) the effects of the project are borne predominately by a minority or low-income population or (2) the effects of the project are appreciably more severe or greater in magnitude on minority or low-income populations compared with the effects on non-minority or non-low-income populations (see the Federal Highway Administration's *Western Resource Center Interim Guidance – Addressing Environmental Justice in the EA/EIS* [1999]).

Although the effects of the project would occur within an area with a population that is predominately minority, these effects cannot reasonably be considered disproportionately high and adverse under the circumstances. The census tracts in the project study area are composed of substantial proportions of minority populations. The proportion of these groups, however, is not determinative of whether there is a disproportionately high and adverse effect. Instead, it is more appropriate to conclude that, even though these groups could bear a large part of the burden associated with the project, primarily due to their proximity to short-term construction activities, the community in general would be similarly affected. The interchange is an important part of both the local and regional circulation system. Consequently, local motorists and pedestrians from the immediate project area, as well as those traveling to and from the project area from elsewhere, would all be inconvenienced by traffic delays and other disruptions during the project construction period.

The project would also comply with applicable federal requirements promulgated in accordance with Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency (August 11, 2000), which requires federal programs and activities to be accessible to persons with limited English language proficiency.

The project would be developed in accordance with Title VI of the Civil Rights Act of 1964, which provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity that receives federal financial assistance. In addition, the project would be developed in conformity with related statutes and regulations that mandate that no person in the State of California shall, on grounds of race, color, sex, age, national origin, or disabling condition, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity administered by or on the behalf of the Department.

### *Permanent*

#### *No-Build Alternative*

Under the No-Build Alternative no direct or indirect impacts would occur that could adversely affect environmental justice populations in the study area.

#### *Build Alternatives 2 and 4*

The Build Alternatives would not displace any residents or businesses, nor would it require the full acquisition of any property. As such, there would be no direct or indirect impacts that would occur that would adversely affect any low-income or minority populations within the study area.

#### *Adverse Effects on General Population*

The technical analysis has concluded that no adverse effects are expected as a result of the proposed project. These analyses do indicate that some potential temporary effects are expected. The impacts identified in these analyses, and the measures to avoid or reduce them, are outlined below.

#### *Disproportionately High and Adverse Effects on Minority and Low-Income Populations*

Environmental justice considerations require an assessment of whether the effects of the project on minority and low-income groups could be considered disproportionately high and adverse, taking into consideration the minimization measures that have been recommended in the technical studies, the impact avoidance and minimization efforts that have occurred during the project planning and development process, and the potential benefits that would accrue within the community.

#### *Efficacy of Minimization Efforts – Unavoidable Adverse Effects*

Of the permanent effects identified thus far in the environmental analysis within this IS/EA, none are considered unavoidable adverse effects. Therefore, the project would not result in an adverse effect. All effects would be substantially minimized with implementation of avoidance and minimization measures **AQ-1** through **AQ-12** in Section 2.2.5, Air Quality, and measures **NOI-2** and **NOI-3** in Section 2.2.6, Noise.

#### *Project Benefits*

Implementation of the project would unquestionably have offsetting benefits that would accrue within the community. The project would reduce traffic congestion, improve mobility, and improve traffic operations in the study area which would benefit residents, businesses, and visitors. The project would increase capacity at the I-10/Jackson Street interchange directly associated with the forecast travel demand for the 2045 design year within the City of Indio; would accommodate multimodal travel (non-vehicular and pedestrian access improvements that would connect to the CV Link); and would improve existing interchange geometric deficiencies.

#### *Potential Disproportionately High and Adverse Effects*

Implementation of the proposed project would unquestionably have offsetting benefits that would accrue within the community. The proposed project would reduce traffic congestion, improve mobility, and improve traffic operations in the study area which would benefit residents, businesses, and visitors since the existing I-10/Jackson Street interchange is a major access point for existing development at the interchange area.

*Conclusion*

Based on the above discussion and analysis, the Build Alternatives will not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of EO 12898. No further environmental justice analysis is required.

### 2.1.7.4 Avoidance, Minimization, and/or Mitigation Measures

As discussed above, the Build and No-Build Alternatives would not cause disproportionately high and adverse effects on any minority or low-income populations, in accordance with the provisions of EO 12898, and no mitigation measures are required.

## 2.1.8 Utilities/Emergency Services

### 2.1.8.1 Affected Environment

#### *Utilities*

Table 2-12 lists utilities found within the project limits. The utilities are also shown on Figure 2-6, Existing Utilities in the Study Area.

**Table 2-12 Utilities within the Project Limits of Disturbance**

| Utility Company/Owner | Utility Type | Notes |
|---|---|---|
| Indio Water Authority | 12-inch waterline | Approximately 1,420 Linear Feet (LF) (850 LF within State right-of-way) is anticipated to be relocated. |
| Charter Communications | Underground cable | No facilities within the project limits. The company expects to install new facilities in the proposed bridges. |
| Coachella Valley Water District (CVWD) | 14-inch irrigation line | Abandoned. |
| Frontier Communications | Aboveground telephone line | Approximately 1,930 LF (1,060 LF within State right-of-way) is anticipated to be relocated. |
| Frontier Communications | Aerial fiber optic cable | Approximately 8 poles are anticipated to be relocated. |
| Imperial Irrigation District (IID) | Overhead electric line | Approximately 4 poles are anticipated to be relocated. |
| Southern California Gas | 4-inch gas line | Relocation is not expected, but minor adjustments maybe required. |
| Valley Sanitary District | Underground sewers | Relocation is not expected, but minor adjustments maybe required. |
| Source: Transystems, 2019; Utilities' Information Sheet, May 10, 2019. | | |

There are also storm drain facilities, traffic signal equipment, electric, and water lines (CVWD) located within Jackson Street and the I-10 OC and Channel Bridge structures that do not need to be relocated, but minor adjustments may be required. Minor adjustments include adjusting manhole/water valve to new finished grade, reconstructing meter/service equipment enclosure cabinet, etc. Some utilities would remain in full service throughout the construction period, although there may be short periods of no service during relocations, and all relocations would be coordinated throughout the construction phase.

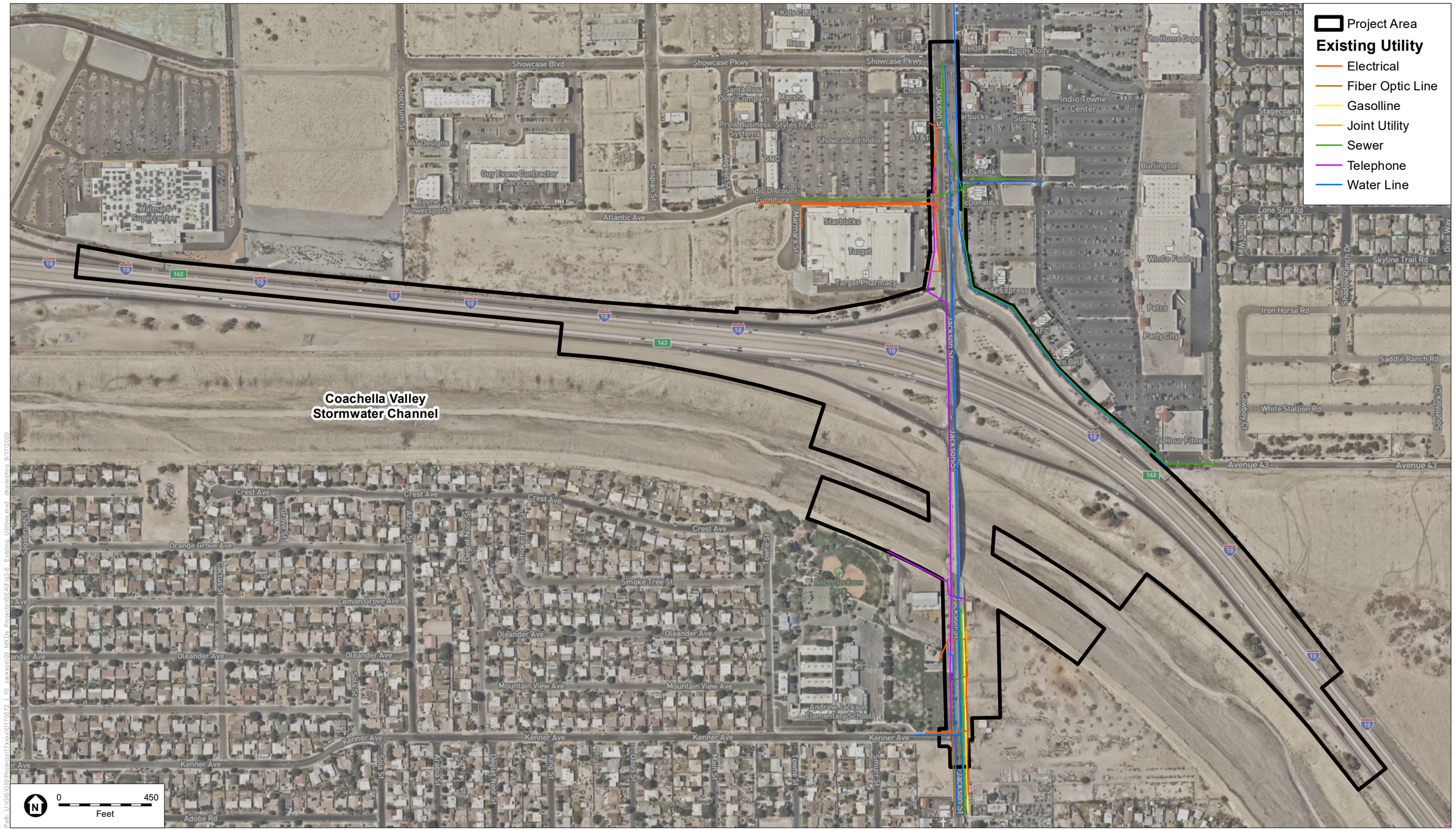
#### *Emergency Services*

##### *Fire*

The City of Indio provides a full-service fire department (City of Indio Fire Department, 2019). Fire services are delivered from three fire stations spread throughout the city that each serve an approximately 1.5-mile radius around each station. The service zones for each of the fire stations slightly overlap each other to better provide timely responses. The project location is serviced by Stations 432 and 431 (https://www.indio.org/civicax/filebank/blobdload.aspx?BlobID=23710).

##### *Police*

The City of Indio Police Department is located at 46800 Jackson Street (http://content.indiopd.org/five_beat_system.asp). It is located approximately 2 miles south of the project limits. The Police Department is divided up into three divisions: Administrative Services, Field Services, and Investigative Supportive Services. Field Services Division is responsible for crime control and public safety issues in their assigned patrol beats, of which there are five for the City. The project site is located within Beats two and five, which are the largest beats of the five.




SOURCE: Mapbox, 2020; ESA, 2020.

I-10 / Jackson Street Interchange Project

**Figure 2-6**
Existing Utilities in the Study Area

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The California Highway Patrol (CHP) Indio Area is part of CHP's Border Division and serves thousands of permanent and temporary residents. The CHP Indio station (Station 630) is located at 79650 Varner Road, which is approximately 3.3 miles northwest of the project location (https://www.chp.ca.gov/find-an-office/border-division/offices/(630)-indio). The California Highway Patrol (CHP) has patrol jurisdiction over all California highways and can act as the state police.

#### *Hospitals*

The nearest hospital to the project site is John F. Kennedy Memorial at 47111 Monroe Street. The hospital is 2.3 miles southeast of the project site in the City of Indio. It is a 145-bed acute-care hospital with 24/7 emergency care (Desert Care Network 2019).

### 2.1.8.2 Environmental Consequences

#### *Temporary*

#### *No-Build Alternative*

Under the No-Build Alternative, no construction would occur; therefore, temporary construction impacts to utilities and emergency service providers would not occur. Although, without the improvements the project is proposing, the traffic and congestion in the area will continue to worsen and could affect emergency service response times around the project location.

#### *Build Alternatives 2 and 4*

##### *Utilities*

The utilities that are anticipated to be impacted by the project are the same for both Build Alternatives, and thus they are analyzed together. Utilities anticipated to be impacted from widening Jackson Street include:

- Relocating an Indio Water Authority water line that runs along the east side of Jackson Street and crosses over the CVSC and I-10 freeway.
- A Frontier Communications telephone line that runs along Jackson Street over the CVSC and I-10 freeway and eight poles of an aerial fiber optic cable that runs along Jackson Street, crosses to the east side of the street approximately 270 feet north of Kenner Avenue, and jointly uses the poles with IID.
- Four poles of IID's three-phase primary overhead line runs along the east side of Jackson Street and ends just before the CVSC.

Additionally, there are also storm drain facilities, traffic signal equipment, electric, and water lines (CVWD) located within Jackson Street and the I-10 OC and Channel Bridge structures that do not need to be relocated, but minor adjustments may be required, which include adjustments to the existing manhole/water valve to new finished grade and reconstruction of meter/service equipment enclosure cabinet, etc.

All utilities would remain in full service throughout the construction period and all relocations would be coordinated throughout the construction phase. However, service will most likely be interrupted when the connection is made from new to old lines outside the interchange. Impacts to homes or businesses are not anticipated; however, further discussion with the utility companies will be done to fully understand potential short-term power interruptions. It is anticipated that any service interruptions would be short-term.

For any utilities affected, all required coordination will be completed to establish exact procedures and specifications for addressing facilities impacted by the project. In addition, if relocation of any utilities

requires use of area(s) beyond the construction footprint associated with the current proposed project, studies will be reviewed or performed as appropriate and applicable measures will be implemented.

### *Emergency Services*

Build Alternatives 2 and 4 could result in short-term construction impacts to emergency access due to traffic delays associated with a construction zone; however, such delays would be for a short period of time and would cease upon completion of project construction. Construction is estimated to last 24 months.

It is anticipated that the project would be staged to minimize impacts to existing traffic. Alternatives 2 and 4 would completely reconstruct the I-10/Jackson Street Overcrossing, Jackson Street, Whitewater River Bridge and all four ramps. The staging concepts and existing width of the bridges would control the phasing of the interchange stage construction. Road and ramp closures with detours in place may be considered on Jackson Street and for the on- and off-ramps. Intermittent nighttime closures would be needed on I-10 for falsework erection and deck pours. Staging design, traffic handling plans, and detours would be developed in the final design phase of project development.

Emergency service response times could potentially be affected during the 24-month construction period. However, the impacts would be temporary in nature. Construction impacts would be addressed with implementation of a Traffic Management Plan (TMP) (refer to measure **TRA-1** in Section 2.1.9, Traffic and Transportation/Pedestrian and Bicycle Facilities), which would require coordination with emergency services and serve to minimize disruption to emergency services.

### ***Permanent***

#### *No-Build Alternative*

Under the No-Build Alternative, I-10/Jackson Street and the surrounding transportation network would be maintained. No long-term impacts to utilities or emergency service providers would occur under the No-Build Alternative.

#### *Build Alternatives 2 and 4*

##### *Utilities*

As mentioned earlier, utilities anticipated to be impacted from construction of either Build Alternative include relocating a water line, aerial telephone line, including 8 poles, and 4 poles from an electric overhead line. Decisions regarding relocation of utilities would occur during final design. Prior to the final design, coordination with the affected utility providers in the vicinity of the improvements will be completed, to verify that the project will not disrupt services. Any required relocations of utilities will be completed during project related construction.

##### *Emergency Services*

Alternatives 2 and 4 would improve the operational performance of the I-10/Jackson Street Interchange and the associated local street system by accommodating anticipated increased traffic demand and potential congestion in the area, thereby improving and maintaining the response times of public services.

## 2.1.8.3 Avoidance, Minimization, and/or Mitigation Measures

Temporary construction impacts to emergency service providers would be addressed with implementation of a TMP (refer to measure **TRA-1** in Section 2.1.9, Traffic and Transportation/Pedestrian and Bicycle Facilities), which would serve to minimize disruption to emergency services.

## 2.1.9 Traffic and Transportation/Pedestrian and Bicycle Facilities

### 2.1.9.1 Regulatory Setting

The Department, as assigned by the Federal Highway Administration (FHWA), directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of Federal-aid highway projects (see 23 Code of Federal Regulations [CFR] 652). It further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

In July 1999, the U.S. Department of Transportation (USDOT) issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in federally assisted programs is governed by the USDOT regulations (49 CFR 27) implementing Section 504 of the Rehabilitation Act (29 USC 794). The FHWA has enacted regulations for the implementation of the 1990 Americans with Disabilities Act (ADA), including a commitment to build transportation facilities that provide equal access for all persons. These regulations require application of the ADA requirements to federal-aid projects.

### 2.1.9.2 Affected Environment

The following section is based on traffic information included in the *Draft I-10/Jackson Street Interchange Improvements Traffic Operations Report (September 2019)*, which was prepared for the project (Fehr and Peers, 2019). A Traffic Volume Report was prepared to present the existing traffic volumes and future year (2025 and 2045, respectively) traffic forecasts to be used for the traffic operations analysis. The *Final Traffic Volume Report* (contained within Appendix B of the *Traffic Operations Report*), its contained traffic volumes and future year traffic forecasts were reviewed and approved by the Department in June 2018.

The traffic operations analyses was conducted for the project alternatives including the No-Build Alternative under both Opening Year (2025) and Design Year (2045). The study scenarios for traffic operations analysis include the following:

- Existing (2018) Conditions
- Opening Year (2025) No-Build Alternative
- Opening Year (2025) Build Alternative 2 – Compact Diamond
- Opening Year (2025) Build Alternative 4 – Diverging Diamond
- Design Year (2045) No-Build Alternative
- Design Year (2045) Build Alternative 2 – Compact Diamond
- Design Year (2045) Build Alternative 4 – Diverging Diamond

#### *Study Area*

The study corridor is shown on Figure 2-7 and extends north to south along Jackson Street from Avenue 42 to Avenue 44. Avenue 42 is approximately 0.3 miles north of the I-10/Jackson westbound ramp intersection and Avenue 44 is approximately 0.5 miles south of the I-10/Jackson eastbound ramp intersection. The study area extends west to east from Monroe Street, approximately 1 mile west of the interchange, to I-10/Golf Center Parkway, approximately 1.2 miles to the east.

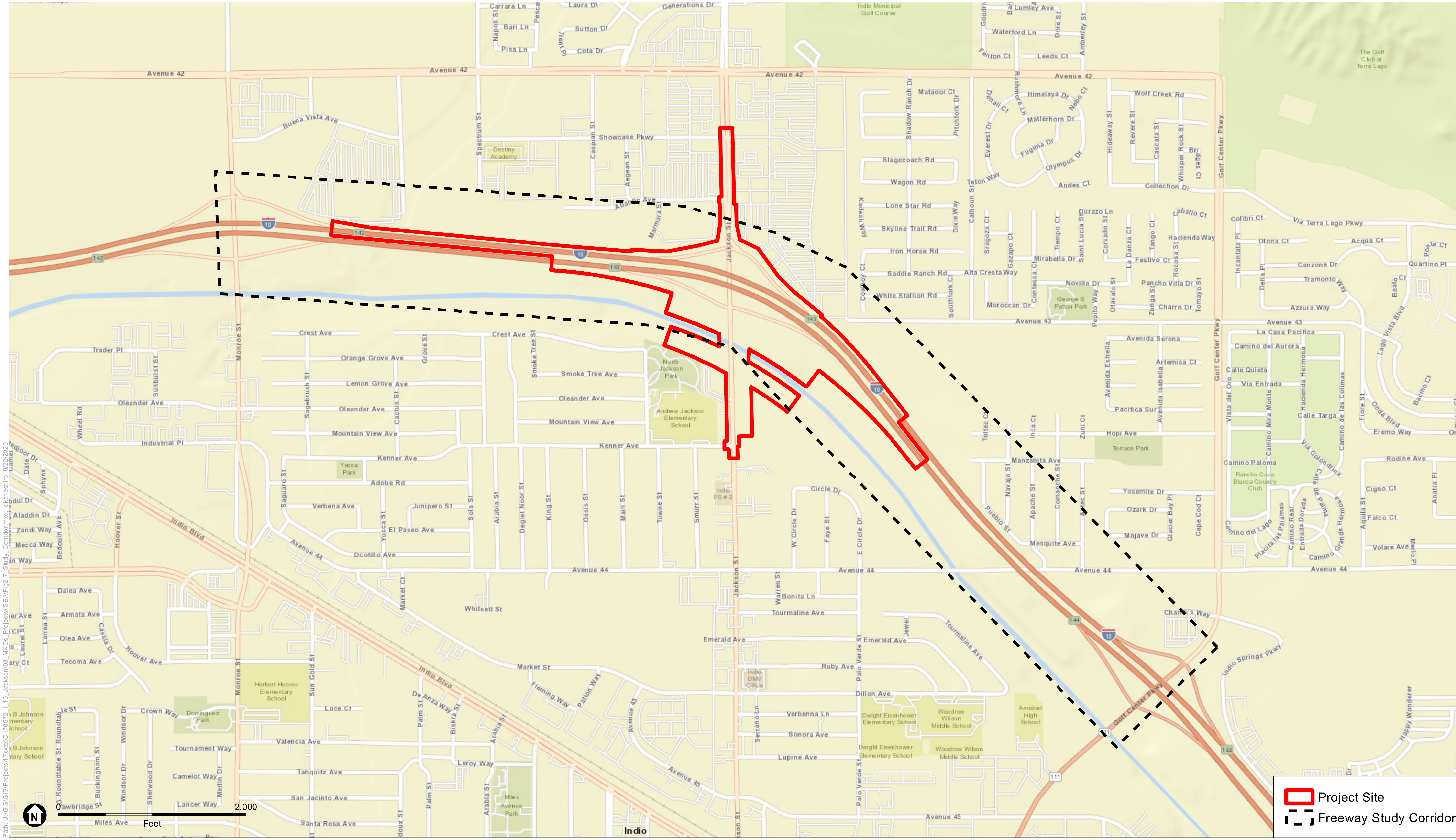
Specific facilities analyzed as part of the operations assessment, including intersections and freeway facilities, are documented below:

- Jackson Street/Avenue 42
- Jackson Street/Showcase Parkway
- Jackson Street/I-10 Westbound Ramps
- Jackson Street/I-10 Eastbound Ramps
- Jackson Street/Kenner Avenue
- Jackson Street/Avenue 44
- Monroe Street/I-10 Westbound Ramps
- Monroe Street/I-10 Eastbound Ramps
- Golf Center Parkway/I-10 Westbound Ramps
- Golf Center Parkway/I-10 Eastbound Ramps

In addition to the intersections listed above, the analyses also included the Atlantic Avenue/Jackson Street and McDonalds Access/Jackson Street right-turn only intersections. These driveways are included in the microsimulation for this project to ensure volume balancing throughout the study area.

### *Freeway*

- Westbound Direction
  - I-10 Merge from Golf Center Parkway
  - I-10 Mainline between Golf Center Parkway and Jackson Street
  - I-10 Diverge to Jackson Street
  - I-10 Merge from Jackson Street
  - I-10 Mainline between Jackson Street and Monroe Street
  - I-10 Diverge to Monroe Street
- Eastbound Direction
  - I-10 Merge from Monroe Street
  - I-10 Mainline between Monroe Street and Jackson Street
  - I-10 Diverge to Jackson Street
  - I-10 Merge from Jackson Street
  - I-10 Mainline between Jackson Street and Golf Center Parkway
  - I-10 Diverge to Golf Center Parkway




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SOURCE: ESRI StreetMap North America.

I-10 / Jackson Street Interchange Project

**Figure 2-7**
Study Corridor

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### *Traffic Forecasting Methodology*

Two travel demand models were considered for developing future forecasts for use in this project: the City of Indio Model and the Coachella Valley Model. Both sub-regional models were developed as part of General Plan updates for the City of Indio and City of Coachella, and are sub-regional models based on the Riverside County Traffic Analysis Model (RivTAM). Based on discussion with the County and the Department, the Coachella Valley Travel Demand Model was selected for use in this effort. A detailed model comparison and review results are presented below.

The determining factors used for model selection were consistent with SCAG's 2016 Regional Transportation Plan (RTP) Socio-Economic Data (SED), roadway network assumptions, and a comparison of growth expected within the City of Indio and the Coachella Valley. SCAG's 2016 financially constrained RTP project list adopted in April 2016, Amendment 1 adopted in April 2017, and Amendment 2 adopted in July 2017, was used as the baseline future roadway network for the project. The model was updated to reflect assumed improvements using the project descriptions stated in the RTP/Amendment 1/Amendment 2 plus additional available project details. In addition, a list of approved and pending development projects was obtained from the City of Indio and County of Riverside. These projects were then compared with land use assumed in the future year model to ensure that future developments in the study area are reflected in the model. For this project, the travel demand model was run using a maximum of five feedback loops and typical convergence criteria for RIVTAM/SCAG models.

### *Future Year Traffic Forecasting*

Traffic forecasts for study locations were developed using the difference methodology which is consistent with methodologies delineated in the National Cooperative Highway Research Program Report (NCHRP) 765 published by the Transportation Research Board (TRB): Analytical Travel Forecasting Approaches for Project Level Planning and Design (Transportation Research Board, 2014). The Base Year (2012) and Future Year (2040) models were used to calculate the annual growth at study locations, which was applied to existing (2018) traffic counts to develop the Opening Year (2025) and Design Year (2045) traffic forecasts.

As the Base Year model SED reflects 2012, and the Future Year reflects projected uses in 2040, the model accounts for 28 years of growth. Data collected reflects traffic volumes in 2018, therefore the years of growth assumed in the model was applied to existing traffic volumes to develop the Design Year (2045) forecasts.

Opening Year (2025) forecasts were developed using interpolation between Existing (2018) traffic volumes and the Design Year (2045) forecasts. Conservation of flow was applied to all forecasted volumes to ensure volumes are balanced along the study corridors.

### *Traffic Operations Freeway Analysis Methodology*

Freeway mainline and ramp junctions were analyzed using the VISSIM 10 microscopic multi-modal traffic flow simulation software package developed by PTV Group. All components of freeway operations (i.e., mainline, on-ramp merge, off-ramp diverge, and weaving sections) operate as a single integrated system with congestion and queues affecting both upstream and downstream traffic operations. VISSIM was used for this operations analysis to capture the effects between all the freeway components and the systemwide measures of effectiveness (MOE). The freeway segments were analyzed using the Highway Capacity Manual, 6th Edition (HCM), and the methodologies contained in VISSIM are consistent with the procedures and methodologies of HCM.

The level of service (LOS) was calculated for each study facility to evaluate traffic operations using a HCM consistent post-processor developed for VISSIM outputs. LOS is a qualitative measure of traffic operating conditions whereby a letter grade, from A (the best) to F (the worst), is assigned. These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with driving. The freeway LOS was calculated for each study facility based on density in number of vehicles per hour per lane. Table 2-13 describes the LOS thresholds for freeway sections identified in the HCM.

The intersection LOS was calculated for each study facility based on average intersection delay. Table 2-14 describes the LOS thresholds for the study intersections identified in the HCM.

The peak-hour density calculations are consistent with the definitions from the HCM, which defines four freeway section types: merge, diverge, weave, and basic. Merge and diverge sections, which refer to the freeway ramp junctions, are defined as the section of the freeway 1,500 feet downstream of an on-ramp and upstream of an off-ramp, respectively. The density is measured over the two outside freeway through lanes plus any auxiliary lanes. A weaving section occurs between a successive on-ramp and off-ramp pair connected by an auxiliary lane, and the maximum weaving distance between the ramps is no longer a fixed distance but is determined by the weaving/total volumes and number of weaving lanes in the HCM. Basic freeway sections include all other freeway sections that are not included in a merge, diverge, or weaving section. The densities at weaving and basic sections are measured across all mixed-flow freeway lanes (including both through lanes and auxiliary lanes).

**Table 2-13 Freeway Mainline and Ramp Junction/Weave Section LOS Threshold**

| Level of Service | Description | Density (vplpm)[1] | |
|---|---|---|---|
| | | Mainline (Basic) | Ramp / Weave |
| A | Free-flow speeds prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream. | ≤ 11 | ≤ 10 |
| B | Free-flow speeds are maintained. The ability to maneuver with the traffic stream is only slightly restricted. | > 11 to 18 | > 10 to 20 |
| C | Flow with speeds at or near free-flow speeds. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more care and vigilance on the part of the driver. | > 18 to 26 | > 20 to 28 |
| D | Speeds decline slightly with increasing flows. Freedom to maneuver with the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort. | > 26 to 35 | > 28 to 35 |
| E | Operation at capacity. There are virtually no usable gaps within the traffic stream, leaving little room to maneuver. Any disruption can be expected to produce a breakdown with queuing. | > 35 to 45 | > 35 to 45[2] |
| F | Represents a breakdown in flow. | > 45 | > 45[2] |

Notes:

[1] Density is reported in vehicles per lane per mile (vplpm).

[2] The maximum density for ramp junctions and weaving sections under LOS E is not defined in the HCM. The maximum density for basic segments of 45 vplpm was assumed to apply to ramp junctions and weaving sections.

[3] Volume over capacity greater than or equal to one (V/C⩾1) will be considered LOS F.

Source: Highway Capacity Manual (Transportation Research Board, 2016)

**Table 2-14 Level of Service Definitions for Signalized and Unsignalized Intersections (6th Edition Highway Capacity Operations Method)**

| Level of Service | Unsignalized Delay | Signalized Intersections | Description |
|---|---|---|---|
| | Average Control Delay (seconds/Vehicle) | Average Stopped Delay per Vehicle (seconds) | |
| A | <10.0 | <10.0 | Operations with very low delay occurring with favorable progression and/or short cycle length. |
| B | >10.0 to 15.0 | >10.0 to 20.0 | Operations with low delay occurring with good progression and/or short cycle lengths. |
| C | >15.0 to 25.0 | >20.0 to 35.0 | Operations with average delays resulting from fair progression and or/longer cycle lengths. Individual cycle failures begin to appear. |
| D | >25.0 to 35.0 | >35.0 to 55.0 | Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable. |
| E | >35.0 to 50.0 | >55.0 to 80.0 | Operations with high delay values indicating poor progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable. |
| F | >50.0 | >80.0 | Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths. |

Note: Volume over capacity greater than or equal to one (V/C≥1) will be considered LOS F.
Source: Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis

### *Analysis Evaluation Criteria*

The Caltrans Guide for the Preparation of Traffic Impact Studies (December 2002) states "Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities, however, the Department acknowledges that this may not always be feasible and recommends that the lead agency consult with the Department to determine the appropriate target LOS." For the purpose of this study, LOS D is assumed to be the criteria for I-10 mainline segments, on- and off-ramps, and ramp terminal intersections.

The City of Indio General Plan has established that the LOS should be LOS D or better for major intersections in the City. Therefore, LOS D is considered as the criteria for acceptable operations for the purpose of this project.

### *Existing Traffic Volumes*

#### *Freeway Operations Analysis*

Table 2-15 summarizes the AM and PM peak hour density and LOS for the study freeway mainline segments and ramp junctions on eastbound and westbound I-10, respectively. As shown, all freeway facilities operate acceptably at LOS B under Existing (2018) conditions.

**Table 2-15 Existing (2018) I-10 Operations Summary**

| Segment | | Facility Type | AM Peak Hour | | PM Peak Hour | |
|---|---|---|---|---|---|---|
| | | | Density[1] | LOS[2] | Density[1] | LOS[2] |
| ***Eastbound*** | | | | | | |
| 1 | Merge from Monroe Street | Merge | 14 | B | 17 | B |
| 2 | Mainline between Monroe Street and Jackson Street | Basic | 14 | B | 17 | B |
| 3 | Diverge to Jackson Street | Diverge | 15 | B | 17 | B |
| 4 | Merge from Jackson Street | Merge | 12 | B | 15 | B |
| 5 | Mainline between Jackson Street and Golf Center Parkway | Basic[4] | 12 | B | 14 | B |
| 6 | Diverge to Golf Center Parkway | Diverge | 14 | B | 16 | B |
| ***Westbound*** | | | | | | |
| 7 | Merge from Golf Center Parkway | Merge | 14 | B | 15 | B |
| 8 | Mainline between Golf Center Parkway and Jackson Street | Basic[4] | 14 | B | 15 | B |
| 9 | Diverge to Jackson Street | Diverge | 14 | B | 15 | B |
| 10 | Merge from Jackson Street | Merge | 17 | B | 16 | B |
| 11 | Mainline between Jackson Street and Monroe Street | Basic | 17 | B | 16 | B |
| 12 | Diverge to Monroe Street | Diverge | 17 | B | 16 | B |

Notes:
[1] Density is reported vehicles per lane per mile. Bold font indicates LOS E of F conditions.
[2] Estimated average grade for the analysis segment.
[3] Bold font indicates unacceptable LOS E or F conditions.
[4] Results for this location are not consistent with HCM methodology due to interchange spacing (less than 3,000 feet).
Source: Fehr & Peers, 2019.

## *Intersections Operations Analysis*

Table 2-16 summarizes the AM and PM peak hour delay and LOS for the study intersections. As shown, all intersections operate acceptably under Existing (2018) conditions. Under Existing (2018) conditions, the westbound ramp terminal intersection operates at LOS A during both peak hours. The eastbound ramp terminal intersection operates at LOS B and LOS C during the AM and PM peak hours, respectively.

**Table 2-16 Existing (2018) Intersections Operations**

| Study Intersections | | AM Peak Hour | | AM Peak Hour | |
|---|---|---|---|---|---|
| | | Delay | LOS | Delay | LOS |
| 1 | Jackson Street/Avenue 42 | 18 | B | 20 | C |
| 2 | Jackson Street/Showcase Parkway | 13 | B | 19 | B |
| 3 | Jackson Street/I-10 Westbound Ramps | 7 | A | 5 | A |
| 4 | Jackson Street/I-10 Eastbound Ramps | 13 | B | 21 | C |
| 5 | Jackson Street/Kenner Avenue | 9 | A | 9 | A |
| 6 | Jackson Street/Avenue 44 | 10 | B | 11 | B |
| 7 | Golf Center Parkway/I-10 Westbound Ramps | 13 | B | 11 | B |
| 8 | Golf Center Parkway/I-10 Eastbound Ramps | 18 | B | 21 | C |
| 9 | Monroe Street/I-10 Westbound Ramps | 14 | B | 11 | B |
| 10 | Monroe Street/I-10 Eastbound Ramps | 26 | C | 35 | D |

Notes:
[1] Bold font indicates unacceptable operations.
Source: Fehr & Peers, 2019.

### *Queueing Analysis*

The maximum queue by movement is shown for all movements at the ramp terminal intersections. Maximum queues, available storage, and maximum queue for each movements are shown in Table 2-17. Under Existing (2018) conditions, no movements exceed storage during the AM or PM peak hour.

**Table 2-17 Existing (2018) Queueing Summary**

| Intersection | Movement | Storage (feet) | AM Peak Hour | PM Peak Hour |
|---|---|---|---|---|
| | | | Max Queue (feet) | Max Queue (feet) |
| Showcase Parkway/Jackson Street | NBT | 1,100 | 62 | 100 |
| | NBR | 475 | 38 | 57 |
| | SBT | 560 | 116 | 88 |
| I-10 Westbound Ramps/Jackson Street | NBL | 200 | 97 | 35 |
| | NBT | 525 | 104 | 120 |
| | SBT | 1,120 | 205 | 204 |
| | SBR | 175 | 164 | 80 |
| | WBL | 1,165 | 59 | 56 |
| | WBR | 240 | 0 | 0 |
| I-10 Eastbound Ramps/Jackson Street | NBT | 1,380 | 267 | 473 |
| | NBR[1] | — | — | — |
| | SBL | 120 | 92 | 120 |
| | SBT | 520 | 174 | 264 |
| | EBL | 1,160 | 164 | 279 |
| | EBR | 340 | 117 | 75 |
| Kenner Avenue/Jackson Street | NBT | 1,260 | 184 | 260 |
| | SBT | 1,400 | 214 | 222 |

[1] Dedicated storage is not provided.
Bold text indicates queue exceeds storage capacity.
Source: Fehr & Peers, 2019

### *Systemwide Performance*

While LOS is a typical indicator of transportation facility performance, the systemwide performance metrics have become effective measurements in evaluating transportation system performance and have been applied in many transportation projects. The systemwide performance measures used for this project include travel time, travel speeds, number of vehicle served by the study network, and vehicle-hours-delay (VHD). Table 2-18 shows the AM and PM peak hour travel time and speeds for the I-10 corridor. As indicated in Table 2-18, and confirmed by field visits, during the AM and PM peak hours travel conditions on I-10 in the eastbound and westbound direction are currently free-flow.

**Table 2-18 Existing (2018) Peak Hour Travel Time**

| Direction | Location | AM Peak Hour | | PM Peak Hour | |
|---|---|---|---|---|---|
| | | Travel Time | Speed | Travel Time | Speed |
| | | (min:sec) | (mph) | (min:sec) | (mph) |
| EB I-10 | Monroe Street Over Crossing to Golf Center Parkway Over Crossing | 2:04 | 64 | 2:06 | 63 |
| WB I-10 | Golf Center Parkway Over Crossing to Monroe Street Over Crossing | 2:05 | 64 | 2:05 | 64 |
| Source: Fehr & Peers, 2019. | | | | | |

In addition, other systemwide traffic metrics (number of vehicles served by the network, VHD, and average delay per vehicle) were reported for both the AM and PM peak periods, those metrics are shown in Table 2-19.

**Table 2-19 Existing (2018) Systemwide Metrics**

| Performance Measure | AM Peak Period | PM Peak Period |
|---|---|---|
| Number of Vehicles Served | 31,370 | 33,770 |
| VHD (vehicle hours) | 251 | 328 |
| Delay per Vehicle (sec/veh) | 30 | 34 |
| Source: Fehr & Peers, 2019. | | |

### 2.1.9.3 Environmental Consequences

#### *Temporary*

*No-Build Alternative*

Under the No-Build Alternative, no construction would occur; therefore, temporary impacts, such as lane closures, nighttime construction, and flagging, would not occur.

*Build Alternatives 2 and 4*

During construction, temporary impacts, such as lane closures, nighttime construction, and flagging, could occur. Construction is estimated to last approximately 30 months. A two-stage construction for both build alternatives is planned in order to minimize closures on Jackson Street. Jackson Street would remain open while the new bridge structure/overcrossing is constructed, generally to the east of the existing street. Traffic will be flipped to the newly constructed side once completed and the old bridge structure/overcrossing is demolished and reconstructed. Full freeway closures on I-10 would be required for the construction of bridge falsework over the freeway. Ramps would require closures at intersections with local roads. Short-term, weekend, or temporary closures are expected for certain phases; however, no long-term street closures are anticipated. Proposed ramp closures will be identified during the project PS&E phase. Traffic-handling plans and stage-construction plans will be developed to minimize queue on the I-10 mainline. These efforts will include off-peak hour construction hours—primarily in the late night, early morning, and weekends—and clearly-marked detours near the closures.

The project would include preparation and implementation of a Traffic Management Plan (TMP). The purpose of the TMP is to describe the location, and discuss various strategies and alternatives that will be employed during construction to alleviate work-related traffic delays. The goal and objective of the TMP

is to maintain traffic flow throughout the I-10 corridor, provide a safe environment for both the work force and motorists, and finally to minimize impact to local businesses and residences. The TMP could include public information communications, such as mailers, handouts, brochures, and press releases; information for motorists from changeable message signs or temporary signs; incident management plan that would define parameters and responsibilities to respond to incidents on and adjacent to the construction corridor; construction strategies, such as traffic plans; and information regarding construction staging, lane modifications (e.g., reduced lane widths or lane closures); demand management plan to remove traffic from existing routes by using this such as expanded park and ride lots, transit service or transit and ride share incentives; and the use of alternate routes/detours. Construction impacts would be short term, lasting only the length of construction (30 months), and cease upon completion of the project. Once the project is completed, the operational performance I-10/Jackson Street interchange is expected to improve, resulting in a beneficial impact.

### *Permanent*

#### *Opening Year (2025) Conditions*

For each alternative, traffic operations are evaluated using peak-hour density/LOS for freeway mainline and ramps, delay/LOS for intersections, travel times/speeds, and other systemwide performance measures.

The detailed traffic forecasting methodology is contained in the I-10/Jackson Street Interchange Project (OM910) Traffic Volume Report (Appendix B of the Traffic Operations Report) approved by the Department in September 2019. The Opening Year (2025) traffic forecasts were also presented in the Final Traffic Volume Report and approved by the Department prior to the operations analysis.

The only roadway network improvement considered in this study scenario outside project improvements, is the widening of Jackson Street from two lanes to four lanes between the Whitewater River Channel and Avenue 44.

#### *Freeway Operations Analysis*

Table 2-20A and Table 2-20B show that during the AM peak hour all freeway segments operate acceptably under the No-Build Alternative and both Build Alternatives. With the addition of an auxiliary lane in the westbound direction between Jackson Street and Monroe Street, density is decreased by five vehicles per lane per mile (vplpm) between the Jackson Street On-Ramp and Monroe Street Off-Ramp.

**Table 2-20A Opening Year (2025) AM Peak Hour I-10 Operations Summary**

| Segment | | Facility Type | No-Build Alternative | | Alternative 2 (TD) | | Alternative 4 (DDI) | |
|---|---|---|---|---|---|---|---|---|
| | | | Density[1] | LOS[2] | Density[1] | LOS[2] | Density[1] | LOS[2] |
| ***Eastbound*** | | | | | | | | |
| 1 | Merge from Monroe Street | Merge | 18 | B | 19 | B | 18 | B |
| 2 | Mainline between Monroe Street and Jackson | Basic | 18 | B | 19 | B | 18 | B |
| 3 | Diverge to Jackson Street | Diverge | 18 | B | 19 | B | 19 | B |
| 4 | Merge from Jackson Street | Merge | 16 | B | 16 | B | 16 | B |
| 5 | Mainline between Jackson Street and Golf Center Parkway | Basic[4] | 16 | B | 16 | B | 17 | B |
| 6 | Diverge to Golf Center Parkway | Diverge | 18 | B | 18 | B | 18 | B |
| ***Westbound*** | | | | | | | | |
| 7 | Merge from Golf Center Parkway | Merge | 17 | B | 18 | B | 18 | B |
| 8 | Mainline between Golf Center Parkway and Jackson Street | Basic[4] | 17 | B | 17 | B | 17 | B |

| Segment | | Facility Type | No-Build Alternative | | Alternative 2 (TD) | | Alternative 4 (DDI) | |
|---|---|---|---|---|---|---|---|---|
| | | | Density[1] | LOS[2] | Density[1] | LOS[2] | Density[1] | LOS[2] |
| 9 | Diverge to Jackson Street | Diverge | 17 | B | 17 | B | 17 | B |
| 10 | Merge from Jackson Street | Merge | 21 | C | 16 | B | 16 | B |
| 11 | Mainline between Jackson Monroe Street | Basic | 21 | C | 16 | B | 16 | B |
| 12 | Diverge to Monroe Street | Diverge | 21 | C | 16 | B | 16 | B |

Notes:
[1] Density is reported vehicles per lane per mile. Bold font indicates LOS E of F conditions.
[2] Estimated average grade for the analysis segment.
[3] Results for this location are not consistent with HCM methodology due to interchange spacing (less than 3,000 feet)
[4] Segment is part of a weaving segment under both Build Alternatives
Source: Fehr & Peers, 2019.

As shown in Table 2-20B below, the PM peak hour, all eastbound and westbound study segments operate acceptably at LOS D or better. In the eastbound direction, density remains unchanged with the project in place for all freeway locations except from the Jackson Street Off-Ramp where density is decreased by one vplpm under Build Alternative 2. In the westbound direction density is unchanged from Golf Center Parkway to the Jackson Street Off-Ramp; however, with the auxiliary lane in place density is decreased by five vplpm under Alternative 2, and six vplpm under Alternative 4.

**Table 2-20B Opening Year (2025) PM Peak Hour I-10 Operations Summary**

| Segment | | Facility Type | No-Build Alternative | | Alternative 2 (TD) | | Alternative 4 (DDI) | |
|---|---|---|---|---|---|---|---|---|
| | | | Density[1] | LOS[2] | Density[1] | LOS[2] | Density[1] | LOS[2] |
| ***Eastbound*** | | | | | | | | |
| 1 | Merge from Monroe Street | Merge | 22 | C | 21 | C | 22 | C |
| 2 | Mainline between Monroe Street and Jackson Street | Basic[3] | 22 | C | 21 | C | 22 | C |
| 3 | Diverge to Jackson Street | Diverge | 22 | C | 22 | C | 22 | C |
| 4 | Merge from Jackson Street | Merge | 19 | B | 19 | B | 19 | B |
| 5 | Mainline between Jackson Street and Golf Center Parkway | Basic | 19 | B | 19 | B | 19 | B |
| 6 | Diverge to Golf Center Parkway | Diverge | 20 | C | 20 | C | 20 | C |
| ***Westbound*** | | | | | | | | |
| 7 | Merge from Golf Center Parkway | Merge | 20 | B | 20 | B | 20 | C |
| 8 | Mainline between Golf Center Parkway and Jackson Street | Basic[4] | 20 | B | 20 | B | 20 | B |
| 9 | Diverge to Jackson Street | Diverge | 20 | C | 20 | C | 20 | C |
| 10 | Merge from Jackson Street | Merge[4] | 22 | C | 17 | B | 18 | B |
| 11 | Mainline between Jackson Street and Monroe Street | Basic[3,4] | 22 | C | 17 | B | 18 | B |
| 12 | Diverge to Monroe Street | Diverge[4] | 22 | C | 17 | B | 18 | B |

Notes:
[1] Density is reported vehicles per lane per mile. Bold font indicates LOS E of F conditions.
[2] Estimated average grade for the analysis segment.
[3] Results for this location are not consistent with HCM methodology due to interchange spacing (less than 3,000 feet).
[4] Segment is part of a weaving segment under both Build Alternatives.
Source: Fehr & Peers, 2019.

### *Intersection Operations Analysis*

Table 2-21A and Table 2-21B show the Opening Year (2025) AM and PM peak hour delay and LOS for the study intersections under the No-Build and Build Alternatives, respectively. Under the No-Build Alternative, all study intersections operate at LOS C or better. Under Build Alternative 2, all study intersections continue to operate acceptably at LOS D or better. Delay at the westbound I-10/Jackson Street intersection is slightly increased due to the increased cycle length under Build Alternative 2, while the eastbound ramp terminal intersection is improved to LOS B. Under Build Alternative 4, all study intersections continue to operate acceptably at LOS D or better. Delay at the westbound ramp terminal intersection is slightly increased due to the increased cycle length, while the eastbound ramp terminal intersection is improved to LOS B.

**Table 2-21A Opening Year (2025) AM Peak Hour Intersections Operations**

| | | No-Build Alternative | | Alternative 2 (TD) | | Alternative 4 (DDI) | |
|---|---|---|---|---|---|---|---|
| **Study Intersection** | | **Delay** | **LOS** | **Delay** | **LOS** | **Delay** | **LOS** |
| 1 | Jackson Street/Avenue 42 | 18 | B | 20 | B | 20 | C |
| 2 | Jackson Street/Showcase Parkway | 14 | B | 15 | B | 15 | B |
| 3 | Jackson Street/I-10 Westbound Ramps | 9 | A | 11 | B | 10 | B |
| 4 | Jackson Street/I-10 Eastbound Ramps | 21 | C | 18 | B | 12 | B |
| 5 | Jackson Street/Kenner Avenue | 10 | B | 11 | B | 11 | B |
| 6 | Jackson Street/Avenue 44 | 11 | B | 11 | B | 11 | B |
| 7 | Golf Center Parkway/I-10 Westbound Ramps | 15 | B | 16 | B | 17 | B |
| 8 | Golf Center Parkway/I-10 Eastbound Ramps | 21 | C | 23 | C | 25 | C |
| 9 | Monroe Street/I-10 Westbound Ramps[2] | 41 | D | 41 | D | 38 | D |
| 10 | Monroe Street/I-10 Eastbound Ramps[2] | 18 | B | 17 | B | 18 | B |

Notes:
[1] Bold font indicates unacceptable operations.
[2] No improvements proposed to corridor under Build Alternative 2 and Alternative 4.
Source: Fehr & Peers, 2019.

**Table 2-21B Opening Year (2025) PM Peak Hour Intersections Operations**

| | | No-Build Alternative | | Alternative 2 (TD) | | Alternative 4 (DDI) | |
|---|---|---|---|---|---|---|---|
| **Study Intersection** | | **Delay** | **LOS** | **Delay** | **LOS** | **Delay** | **LOS** |
| 1 | Jackson Street/Avenue 42 | 21 | C | 23 | C | 23 | C |
| 2 | Jackson Street/Showcase Parkway | 20 | B | 22 | C | 21 | C |
| 3 | Jackson Street/I-10 Westbound Ramps | 6 | A | 10 | A | 12 | B |
| 4 | Jackson Street/I-10 Eastbound Ramps | **94** | **F** | 21 | C | 12 | B |
| 5 | Jackson Street/Kenner Avenue | 34 | C | 8 | A | 9 | A |
| 6 | Jackson Street/Avenue 44 | 13 | B | 13 | B | 13 | B |
| 7 | Golf Center Parkway/I-10 Westbound Ramps | 16 | B | 17 | B | 18 | B |
| 8 | Golf Center Parkway/I-10 Eastbound Ramps | 30 | C | 33 | C | 34 | C |
| 9 | Monroe Street/I-10 Westbound Ramps[2] | 19 | B | 19 | B | 20 | B |
| 10 | Monroe Street/I-10 Eastbound Ramps[2] | 40 | D | 41 | D | 40 | D |

Notes:
[1] Bold font indicates unacceptable operations.
[2] No improvements proposed to corridor under Build Alternative 2 and Alternative 4.
Source: Fehr & Peers, 2019.

Under the No-Build Alternative, the Jackson Street/I-10 Eastbound Ramps intersection operates at LOS F for PM peak hour. All other study intersections operate acceptably under the No-Build Alternative.

Under Build Alternative 2, the eastbound ramp terminal intersection is improved from LOS F to LOS C. As the westbound ramp terminal intersection operates at LOS A under the No-Build Alternative, the increased cycle length under Build Alternative 2 and increase in volume served, causes a slight increase in delay at the Jackson Street/I-10 Westbound Ramps intersection. Under Build Alternative 4, the Jackson Street/I-10 Eastbound Ramps intersection is improved to LOS B, while the Jackson Street/I-10 Westbound Ramps intersections has slightly higher delay under the Build Alternative. This increase is a result of cycle length increases and an increase in volume served under Build Alternative 4.

### *Queueing Analysis*

The maximum queue for all movements at the Jackson Street ramp terminal intersections are shown in Table 2-22A and Table 2-22B for the AM and PM peak hours, respectively. Available storage and maximum queue are shown for each alternative.

Under the No-Build Alternative, the only movement exceeding storage at the I-10 Westbound Ramps/Jackson Street intersection is the southbound left-turn lane. At the I-10 Eastbound Ramps/Jackson Street intersection, no movements exceed storage during the AM peak hour under the No-Build Alternative.

Under both Build Alternatives 2 and 4, queueing was improved at all movements such that no movements would exceed the storage capacity.

**Table 2-22A Opening Year (2025) AM Peak Hour Queueing Summary**

| | | No-Build Alternative | | Alternative 2 (TD) | | Alternative 4 (DDI) | |
|---|---|---|---|---|---|---|---|
| **Intersection** | **Movement** | **Storage (feet)** | **Max Queue (feet)** | **Storage (feet)** | **Max Queue (feet)** | **Storage (feet)** | **Max Queue (feet)** |
| Showcase Parkway/Jackson Street | NBT | 1,100 | 63 | 1,100 | 61 | 1,100 | 66 |
| | NBR | 475 | 41 | 475 | 43 | 475 | 40 |
| | SBT | 560 | 128 | 560 | 137 | 560 | 143 |
| I-10 Westbound Ramps/Jackson Street | NBL | 200 | 150 | 730 | 157 | 520 | 40 |
| | NBT | 525 | 92 | 525 | 78 | 600 | 133 |
| | SBT | 1,120 | 247 | 1,120 | 148 | 1,120 | 193 |
| | SBR | 175 | **203** | 300 | 208 | 390 | 13 |
| | WBL | 1,165 | 59 | 1,165 | 59 | 1,400 | 0 |
| | WBR | 240 | 0 | 820 | 99 | 840 | 6 |
| I-10 Eastbound Ramps/Jackson Street | NBT | 1,380 | 431 | 1,380 | 132 | 1,380 | 160 |
| | NBR[1] | - | - | - | - | - | - |
| | SBL | 120 | 88 | 300 | 155 | 410 | 20 |
| | SBT | 520 | 184 | 520 | 90 | 530 | 52 |
| | EBL | 1,160 | 167 | 1,160 | 115 | 1,240 | 0 |
| | EBR | 340 | 124 | 510 | 115 | 770 | 62 |
| Kenner Avenue/Jackson Street | NBT | 1,260 | 130 | 1,260 | 134 | 1,260 | 181 |
| | SBT | 1,400 | 134 | 1,400 | 165 | 1,400 | 136 |

[1] Dedicated storage is not provided.
Bold text indicates queue exceeds storage capacity.
Source: Fehr & Peers, 2019

During the PM Peak Hour, only the southbound left-turn at the eastbound ramp terminal intersection was found to exceed storage under the No-Build Alternative.

Under both Alternative 2 and Alternative 4, queueing was improved such that no movements would exceed storage.

**Table 2-22B Opening Year (2025) PM Peak Hour Queueing Summary**

| | | No-Build Alternative | | Alternative 2 (TD) | | Alternative 4 (DDI) | |
|---|---|---|---|---|---|---|---|
| **Intersection** | **Movement** | **Storage (feet)** | **Max Queue (feet)** | **Storage (feet)** | **Max Queue (feet)** | **Storage (feet)** | **Max Queue (feet)** |
| Showcase Parkway/Jackson Street | NBT | 1,100 | 108 | 1,100 | 117 | 1,100 | 137 |
| | NBR | 475 | 52 | 475 | 56 | 475 | 60 |
| | SBT | 560 | 107 | 560 | 110 | 560 | 121 |
| I-10 Westbound Ramps/Jackson Street | NBL | 200 | 92 | 730 | 128 | 520 | 84 |
| | NBT | 525 | 134 | 525 | 91 | 600 | 208 |
| | SBT | 1,120 | 252 | 1,120 | 152 | 1,120 | 205 |
| | SBR | 175 | 99 | 300 | 166 | 390 | 7 |
| | WBL | 1,165 | 59 | 1,165 | 59 | 1,400 | 0 |
| | WBR | 240 | 0 | 820 | 136 | 840 | 20 |
| I-10 Eastbound Ramps/Jackson Street | NBT | 1,380 | 1,338 | 1,380 | 213 | 1,380 | 204 |
| | NBR[1] | - | - | - | - | - | - |
| | SBL | 120 | **175** | 300 | 200 | 410 | 46 |
| | SBT | 520 | 287 | 520 | 138 | 530 | 71 |
| | EBL | 1,160 | 276 | 1,160 | 136 | 1,240 | 0 |
| | EBR | 340 | 121 | 510 | 136 | 770 | 63 |
| Kenner Avenue/Jackson Street | NBT | 1,260 | 278 | 1,260 | 184 | 1,260 | 215 |
| | SBT | 1,400 | 132 | 1,400 | 155 | 1,400 | 140 |

[1] Dedicated storage is not provided.
Bold text indicates queue exceeds storage capacity.
Source: Fehr & Peers, 2019

### *Systemwide Performance*

The systemwide performance measures applied for the Opening Year (2025) analysis include travel time, travel speeds, number of vehicle served by the study network, and vehicle-hours-delay (VHD). Table 2-23A, Table 2-23B, Table 2-24A, and Table 2-24B show the Opening Year (2025) AM and PM peak hour travel time and speeds for the I-10 corridor under the No-Build and Build Alternatives, respectively.

During the AM peak period, all three alternatives would serve similar number of vehicles. Under Build Alternative 2, 340 more vehicles are served, while Build Alternative 4 serves 190 more vehicles. Vehicle hours of delay and delay per vehicle would be the same between the No-Build and both Build Alternatives.

**Table 2-23A Opening Year (2025) AM Peak Hour Travel Times**

| | | No-Build | | Alternative 2 (TD) | | Alternative 4 (DDI) | |
|---|---|---|---|---|---|---|---|
| | | Travel Time | Speed | Travel Time | Speed | Travel Time | Speed |
| Direction | Location | (min:sec) | (mph) | (min:sec) | (mph) | (min:sec) | (mph) |
| EB I-10 | Monroe Street Over Crossing to Golf Center Parkway Over Crossing | 2:05 | 63 | 2:05 | 63 | 2:05 | 63 |
| WB I-10 | Golf Center Parkway Over Crossing to Monroe Street Over Crossing | 2:06 | 63 | 2:06 | 63 | 2:06 | 63 |
| Source: Fehr & Peers, 2019. | | | | | | | |

**Table 2-23B Opening Year (2025) PM Peak Hour Travel Times**

| | | No-Build | | Alternative 2 (TD) | | Alternative 4 (DDI) | |
|---|---|---|---|---|---|---|---|
| | | Travel Time | Speed | Travel Time | Speed | Travel Time | Speed |
| Direction | Location | (min:sec) | (mph) | (min:sec) | (mph) | (min:sec) | (mph) |
| EB I-10 | Monroe Street Over Crossing to Golf Center Parkway Over Crossing | 2:05 | 63 | 2:05 | 63 | 2:05 | 63 |
| WB I-10 | Golf Center Parkway Over Crossing to Monroe Street Over Crossing | 2:06 | 63 | 2:05 | 63 | 2:06 | 63 |
| Source: Fehr & Peers, 2019. | | | | | | | |

In addition, other systemwide traffic metrics (number of vehicles served by the network, VHD, and average delay per vehicle) were reported for both the AM and PM peak periods under the No-Build and Build Alternatives in the Opening Year (2025), which is shown in Table 2-24A and Table 2-24B.

**Table 2-24A Opening Year (2025) AM Peak Hour Systemwide Measures of Effectiveness (MOEs)**

| Performance Measure | No-Build Alternative | Alternative 2 (TD) | Alternative 4 (DDI) |
|---|---|---|---|
| Number of Vehicles Served | 35,000 | 35,340 | 35,190 |
| VHD (vehicle hours) | 343 | 342 | 343 |
| Delay per Vehicle (sec/veh) | 35 | 35 | 35 |
| Source: Fehr & Peers, 2019. | | | |

During the PM peak period, Alternative 2 would serve approximately 190 more vehicles compared to the No-Build Alternative, while Alternative 4 would serve 120 more vehicles than the No-Build Alternative. Under Alternative 2, vehicle hours of delay are reduced by 71 hours while delay per vehicle is decreased by 6 seconds, which is a 10 percent decrease compared to the No-Build Alternative. Under Alternative 4, vehicle hours of delay are decreased by 75 hours and delay per vehicle is reduced by 6 seconds, which is a 11 percent decrease when compared to the No-Build Alternative.

**Table 2-24B Opening Year (2025) PM Peak Hour Systemwide MOEs**

| Performance Measure | No-Build Alternative | Alternative 2 (TD) | Alternative 4 (DDI) |
|---|---|---|---|
| Number of Vehicles Served | 38,970 | 39,160 | 39,090 |
| VHD (vehicle hours) | 715 | 644 | 640 |
| Delay per Vehicle (sec/veh) | 61 | 55 | 55 |
| Source: Fehr & Peers, 2019. | | | |

## *Opening Year (2045) Conditions*

For each alternative, traffic operations are evaluated using peak-hour density/LOS for freeway mainline and ramps, delay/LOS for intersections, travel times/speeds, and other systemwide performance measures. The Design Year (2045) traffic forecasts were also presented in the Final Traffic Volume Report and approved by the Department prior to the operations analysis.

Several roadway network improvements were considered in this study scenario outside project improvements, including the widening of Jackson Street from two lanes to four lanes between the eastbound ramp terminal intersection and Avenue 44.

### *Freeway Operations Analysis*

Table 2-25A and Table 2-25B show the Design Year (2045) AM and PM peak hour density and LOS for the study freeway mainline segments and ramp junctions under the No-Build and Build Alternatives on eastbound and westbound I-10, respectively.

Under the No-Build Alternative, both the Jackson Street On-Ramp and Monroe Street Off-Ramp were found to operate unacceptably at LOS E in the westbound direction. Under both Build Alternative 2 and Build Alternative 4, density at both locations is improved to LOS C with the addition of the westbound auxiliary lane under both Build Alternatives.

**Table 2-25A Design Year (2045) AM Peak Hour I-10 Operations Summary**

| Segment | | Facility Type | No-Build | | Alternative 2 (TD) | | Alternative 4 (DDI) | |
|---|---|---|---|---|---|---|---|---|
| | | | Density[1] | LOS[2] | Density[1] | LOS[2] | Density[1] | LOS[2] |
| ***Eastbound*** | | | | | | | | |
| 1 | Merge from Monroe Street | Merge | 30 | D | 29 | D | 34 | D |
| 2 | Mainline between Monroe Street and Jackson Street | Basic[3] | 30 | D | 29 | D | 31 | D |
| 3 | Diverge to Jackson Street | Diverge | 31 | D | 30 | D | 31 | D |
| 4 | Merge from Jackson Street | Merge | 27 | C | 27 | C | 27 | C |
| 5 | Mainline between Jackson Street and Golf Center Parkway | Basic | 27 | C | 27 | D | 27 | C |
| 6 | Diverge to Golf Center Parkway | Diverge | 29 | D | 30 | D | 30 | D |
| ***Westbound*** | | | | | | | | |
| 7 | Merge from Golf Center Parkway | Merge | 28 | C | 28 | C | 28 | C |
| 8 | Mainline between Golf Center Parkway and Jackson Street | Basic | 28 | C | 28 | C | 28 | C |
| 9 | Diverge to Jackson Street | Diverge | 28 | D | 28 | D | 28 | D |
| 10 | Merge from Jackson Street | Merge[4] | **38** | **E** | 25 | C | 25 | C |

| Segment | | Facility Type | No-Build | | Alternative 2 (TD) | | Alternative 4 (DDI) | |
|---|---|---|---|---|---|---|---|---|
| | | | Density[1] | LOS[2] | Density[1] | LOS[2] | Density[1] | LOS[2] |
| 11 | Mainline between Jackson Street and Monroe Street | Basic[3, 4] | **36** | **E** | 25 | C | 25 | C |
| 12 | Diverge to Monroe Street | Diverge[4] | **36** | **E** | 25 | C | 25 | C |

Notes:
[1] Density is reported vehicles per lane per mile. Bold and underline font indicate LOS E of F conditions.
[2] Estimated average grade for the analysis segment.
[3] Results for this location are not consistent with HCM methodology due to interchange spacing (less than 3,000 feet).
[4] Segment is part of a weaving segment under both Build Alternatives.
Source: Fehr & Peers, 2019.

Under the No-Build Alternative, all westbound freeway segments were found to operate unacceptably at LOS E or LOS F, while all eastbound segments were found to operate acceptably. These results are consistent with findings in the I-10 Transportation Concept Report completed by the Department in 2017, which found that without additional capacity on the I-10 mainline operations would be unacceptable by 2040.

Under Build Alternative 2, all westbound freeway segments are improved with the project in place. All segments from the Golf Center Parkway On-Ramp to the Jackson Street Off-Ramp are improved to better than No-Build conditions while the remaining study segments from the Jackson Street On-Ramp to the Monroe Street Off Ramp are improved from unacceptable to acceptable operations under Build Alternative 2. These improvements are due to increased capacity between the interchanges with the westbound auxiliary lane in place. The addition of the auxiliary lane improves the downstream bottleneck, creating benefit at all upstream study segments where no physical improvements are proposed.

Under Build Alternative 4, all westbound freeway segments, which operate unacceptably under the No-Build Alternative, are either improved to better than No-Build Conditions or acceptable operations. While freeway segments between the Golf Center Parkway On-Ramp and Jackson Street Off-Ramp continue to operate at LOS E, density is significantly reduced at all locations. All segments from the Jackson Street On-Ramp to the Monroe Street Off-Ramp are improved to LOS D or acceptable operations. Similar to Alternative 2, improvements in all study locations are a result of the reduced bottleneck at downstream locations.

**Table 2-25B Design Year (2045) PM Peak Hour I-10 Operations Summary**

| Segment | | Facility Type | No-Build | | Alternative 2 (TD) | | Alternative 4 (DDI) | |
|---|---|---|---|---|---|---|---|---|
| | | | Density[1] | LOS[2] | Density[1] | LOS[2] | Density[1] | LOS[2] |
| ***Eastbound*** | | | | | | | | |
| 1 | Merge from Monroe Street | Merge | 32 | D | 32 | D | 32 | D |
| 2 | Mainline between Monroe Street and Jackson Street | Basic[3] | 32 | D | 33 | D | 32 | D |
| 3 | Diverge to Jackson Street | Diverge | 33 | D | 33 | D | 32 | D |
| 4 | Merge from Jackson Street | Merge | 27 | C | 27 | C | 28 | C |
| 5 | Mainline between Jackson Street and Golf Center Parkway | Basic | 28 | D | 28 | C | 30 | D |
| 6 | Diverge to Golf Center Parkway | Diverge | 29 | D | 30 | D | 34 | D |

| Segment | | Facility Type | No-Build | | Alternative 2 (TD) | | Alternative 4 (DDI) | |
|---|---|---|---|---|---|---|---|---|
| | | | Density [1] | LOS[2] | Density [1] | LOS[2] | Density [1] | LOS[2] |
| ***Westbound*** | | | | | | | | |
| 7 | Merge from Golf Center Parkway | Merge | **73** | **F** | **46** | **F** | **45** | **F** |
| 8 | Mainline between Golf Center Parkway and Jackson Street | Basic | **71** | **F** | **41** | **E** | **40** | **E** |
| 9 | Diverge to Jackson Street | Diverge | **73** | **F** | **41** | **E** | **40** | **E** |
| 10 | Merge from Jackson Street | Merge[4] | **62** | **F** | 34 | D | 30 | D |
| 11 | Mainline between Jackson Street and Monroe Street | Basic[3, 4] | **62** | **F** | 34 | D | 30 | D |
| 12 | Diverge to Monroe Street | Diverge[4] | **41** | | 34 | D | 30 | D |

Notes:
[1] Density is reported vehicles per lane per mile. Bold and underline font indicate LOS E of F conditions.
[2] Estimated average grade for the analysis segment.
[3] Results for this location are not consistent with HCM methodology due to interchange spacing (less than 3,000 feet).
[4] Segment is part of a weaving segment under both Build Alternatives.
Source: Fehr & Peers, 2019.

### *Intersection Operations Analysis*

Table 2-26A and Table 2-26B shows the Design Year (2045) AM and PM peak hour delay and LOS for the study intersections under the No-Build and Build Alternatives, respectively.

Under the No-Build Alternative, the Jackson Street/I-10 Eastbound Ramp terminal intersection was found to operate unacceptably at LOS E. Both ramp terminal intersections at Monroe Street also operate unacceptably.

Under Build Alternative 2, the Jackson Street/I-10 Eastbound Ramp terminal intersection is improved from LOS E to LOS C, while the Jackson Street/I-10 Westbound Ramp terminal intersection is improved from LOS C to LOS B. All other intersections on Jackson Street continue to operate acceptably under Build Alternative 2.

Under Build Alternative 4, the Jackson Street/I-10 Eastbound Ramp terminal intersection is improved from LOS E to LOS B, while the Jackson Street/I-10 Westbound Ramp terminal intersection is improved from LOS C to LOS B. All other intersections on Jackson Street continue to operate acceptably under Build Alternative 4.

**Table 2-26A Opening Year (2045) AM Peak Hour Intersections Operations**

| Study Intersection | | No-Build Alternative | | Alternative 2 (TD) | | Alternative 4 (DDI) | |
|---|---|---|---|---|---|---|---|
| | | Delay | LOS | Delay | LOS | Delay | LOS |
| 1 | Jackson Street/Avenue 42 | 21 | C | 22 | C | 23 | C |
| 2 | Jackson Street/Showcase Parkway | 15 | B | 16 | B | 16 | B |
| 3 | Jackson Street/I-10 Westbound Ramps | 34 | C | 16 | B | 12 | B |
| 4 | Jackson Street/I-10 Eastbound Ramps | **77** | **E** | 20 | C | 10 | B |
| 5 | Jackson Street/Kenner Avenue | 15 | B | 10 | B | 11 | B |
| 6 | Jackson Street/Avenue 44 | 14 | B | 15 | B | 15 | B |

| Study Intersection | | No-Build Alternative | | Alternative 2 (TD) | | Alternative 4 (DDI) | |
|---|---|---|---|---|---|---|---|
| | | Delay | LOS | Delay | LOS | Delay | LOS |
| 7 | Golf Center Parkway/I-10 Westbound Ramps[3] | 24 | C | 26 | C | 25 | C |
| 8 | Golf Center Parkway/I-10 Eastbound Ramps[3] | 54 | D | 53 | D | 50 | D |
| 9 | Monroe Street/I-10 Westbound Ramps[2] | **164** | **F** | **163** | **F** | **161** | **F** |
| 10 | Monroe Street/I-10 Eastbound Ramps[2] | **121** | **F** | **119** | **F** | **121** | **E** |

Notes:
[1] Bold font indicates unacceptable operations.
[2] No improvements proposed to corridor under Build Alternative 2 and Alternative 4.
Source: Fehr & Peers, 2019.

As shown in Table 2-26B, under the No-Build Alternative, all study intersections except for the Jackson Street/Avenue 42 intersection operate unacceptably at LOS E or LOS F.

Under Build Alternative 2, all intersections along Jackson Street are improved to acceptable operations, including the eastbound and westbound ramp terminal intersection. The Jackson Street/I-10 Westbound Ramps intersection is improved to LOS B, while the Jackson Street/I-10 Eastbound Ramps intersection is improved to LOS C.

Under Build Alternative 4, all intersection operations along the Jackson Street corridor are improved to acceptable operations. At the Jackson Street/I-10 Westbound Ramps intersection operations would be improved from LOS E under the No-Build Alternative to LOS B. Similar improvements occur at the Jackson Street/Eastbound Ramps intersection which would be improved from LOS F under the No-Build Alternative to LOS C.

**Table 2-26B Opening Year (2045) PM Peak Hour Intersections Operations**

| Study Intersection | | No-Build Alternative | | Alternative 2 (TD) | | Alternative 4 (DDI) | |
|---|---|---|---|---|---|---|---|
| | | Delay | LOS | Delay | LOS | Delay | LOS |
| 1 | Jackson Street/Avenue 42 | 29 | C | 27 | C | 27 | C |
| 2 | Jackson Street/Showcase Parkway | **74** | **E** | 24 | C | 23 | C |
| 3 | Jackson Street/I-10 Westbound Ramps | **97** | **E** | 18 | B | 16 | B |
| 4 | Jackson Street/I-10 Eastbound Ramps | **204** | **F** | 30 | C | 35 | C |
| 5 | Jackson Street/Kenner Avenue | **180** | **F** | 10 | A | 27 | C |
| 6 | Jackson Street/Avenue 44 | **117** | **F** | 32 | C | 32 | C |
| 7 | Golf Center Parkway/I-10 Westbound Ramps[3] | **69** | **E** | **64** | **E** | **66** | **E** |
| 8 | Golf Center Parkway/I-10 Eastbound Ramps[3] | **162** | **F** | **151** | **F** | **157** | **F** |
| 9 | Monroe Street/I-10 Westbound Ramps[2] | **184** | **F** | **182** | **F** | **184** | **F** |
| 10 | Monroe Street/I-10 Eastbound Ramps[2] | **164** | **F** | **154** | **F** | **156** | **F** |

Notes:
[1] Bold font indicates unacceptable operations.
[2] No improvements proposed to corridor under Build Alternative 2 and Alternative 4.
Source: Fehr & Peers, 2019.

### *Queueing Analysis Opening Year (2045)*

The maximum queue for all movements at the Jackson Street ramp terminal intersections are shown in Table 2-27A and Table 2-27B for the AM and PM peak hours, respectively. Available storage and maximum queue are shown for each alternative.

Under the No-Build Alternative, the following movements would exceed storage during the AM peak hour.

- Northbound left-turn at Jackson Street/I-10 Westbound Ramps
- Southbound right-turn at Jackson Street/1-10 Westbound Ramps
- Southbound left-turn at Jackson Street/I-10 Eastbound Ramps

Under Build Alternatives 2 and 4, queueing is improved at all locations such that storage is not exceeded for any movements.

**Table 2-27A Opening Year (2045) AM Peak Hour Queueing Summary**

| | | No-Build Alternative | | Alternative 2 (TD) | | Alternative 4 (DDI) | |
|---|---|---|---|---|---|---|---|
| **Intersection** | **Movement** | **Storage (feet)** | **Max Queue (feet)** | **Storage (feet)** | **Max Queue (feet)** | **Storage (feet)** | **Max Queue (feet)** |
| Showcase Parkway/Jackson Street | NBT | 1,100 | 75 | 1,100 | 76 | 1,100 | 83 |
| | NBR | 475 | 47 | 475 | 43 | 475 | 40 |
| | SBT | 560 | 181 | 560 | 168 | 560 | 171 |
| I-10 Westbound Ramps/Jackson Street | NBL | 200 | **461** | 730 | 268 | 520 | 93 |
| | NBT | 525 | 49 | 525 | 48 | 600 | 190 |
| | SBT | 1,120 | 648 | 1,120 | 183 | 1,120 | 251 |
| | SBR | 175 | **559** | 300 | 244 | 390 | 30 |
| | WBL | 1,165 | 78 | 1,165 | 67 | 1,400 | 0 |
| | WBR | 240 | 0 | 820 | 105 | 840 | 7 |
| I-10 Eastbound Ramps/Jackson Street | NBT | 1,380 | 1,150 | 1,380 | 215 | 1,380 | 240 |
| | NBR[1] | - | - | - | - | - | - |
| | SBL | 120 | **223** | 300 | 217 | 410 | 39 |
| | SBT | 520 | 313 | 520 | 146 | 530 | 72 |
| | EBL | 1,160 | 247 | 1,160 | 184 | 1,240 | 0 |
| | EBR | 340 | 302 | 510 | 184 | 770 | 142 |
| Kenner Avenue/Jackson Street | NBT | 1,260 | 231 | 1,260 | 211 | 1,260 | 253 |
| | SBT | 1,400 | 152 | 1,400 | 197 | 1,400 | 157 |

[1] Dedicated storage is not provided.

Bold text indicates queue exceeds storage capacity.

Source: Fehr & Peers, 2019

As shown in Table 2-27B, under the No-Build Alternative, the following movements at Jackson Street/I-10 Westbound Ramp terminal intersection would exceed storage during the PM peak hour under the No-Build Alternative:

- Jackson Street/I-10 Westbound Ramp terminal intersection
  - Southbound through
  - Southbound right-turn
  - Northbound left-turn
- Jackson Street/I-10 Eastbound Ramp terminal intersection
  - Northbound through
  - Southbound left-turn

The northbound through movement at the Kenner Street intersection was also found to exceed capacity under the No-Build Alternative.

As shown in Table 2-27B, under Build Alternatives 2 and 4, no queueing was found to exceed storage capacity.

**Table 2-27B Opening Year (2045) PM Peak Hour Queueing Summary**

| | | **No-Build Alternative** | | **Alternative 2 (TD)** | | **Alternative 4 (DDI)** | |
|---|---|---|---|---|---|---|---|
| **Intersection** | **Movement** | **Storage (feet)** | **Max Queue (feet)** | **Storage (feet)** | **Max Queue (feet)** | **Storage (feet)** | **Max Queue (feet)** |
| Showcase Parkway/Jackson Street | NBT | 1,100 | 123 | 1,100 | 161 | 1,100 | 169 |
| | NBR | 475 | 50 | 475 | 55 | 475 | 60 |
| | SBT | 560 | 349 | 560 | 137 | 560 | 131 |
| I-10 Westbound Ramps/Jackson Street | NBL | 200 | **240** | 730 | 265 | 520 | 182 |
| | NBT | 525 | 117 | 525 | 79 | 600 | 308 |
| | SBT | 1,120 | **1,207** | 1,120 | 308 | 1,120 | 260 |
| | SBR | 175 | **1,126** | 300 | 176 | 390 | 0 |
| | WBL | 1,165 | 79 | 1,165 | 82 | 1,400 | 0 |
| | WBR | 240 | 0 | 820 | 208 | 840 | 22 |
| I-10 Eastbound Ramps/Jackson Street | NBT | 1,380 | **1,492** | 1,380 | 605 | 1,380 | 383 |
| | NBR[1] | - | - | - | - | - | - |
| | SBL | 120 | **198** | 300 | 238 | 410 | 46 |
| | SBT | 520 | 291 | 520 | 225 | 530 | 76 |
| | EBL | 1,160 | 330 | 1,160 | 187 | 1,240 | 6 |
| | EBR | 340 | 245 | 510 | 187 | 770 | 135 |
| Kenner Avenue/Jackson Street | NBT | 1,260 | **1,347** | 1,260 | 546 | 1,260 | 621 |
| | SBT | 1,400 | 167 | 1,400 | 211 | 1,400 | 171 |

[1] Dedicated storage is not provided.
Bold text indicates queue exceeds storage capacity.
Source: Fehr & Peers, 2019

### *Systemwide Performance*

The systemwide performance measures applied for the Opening Year (2045) analysis include travel time, travel speeds, number of vehicle served by the study network, and vehicle-hours-delay (VHD). Table 2-28A and Table 2-28B summarize the Design Year (2045) AM and PM peak hour travel time and speeds for the I-10 corridor under the No-Build and Build Alternatives 2 and 4.

During the AM peak hour, travel time and average speed along the corridor would be similar between the No-Build Alternative and two Build Alternatives in the eastbound direction. In the westbound direction, travel time is decreased by 4 seconds under both alternatives, while speed is increased by 1 mph under both Build Alternatives. As shown in the Table 2-28A and Table 2-28B below, this increase in travel time and correlating decrease in speeds is a result of increase in volume served, and is supported by the decrease in vehicle hours of delay.

**Table 2-28A Opening Year (2045) AM Peak Hour Travel Times**

| | | No-Build Alternative | | Alternative 2 (TD) | | Alternative 4 (DDI) | |
|---|---|---|---|---|---|---|---|
| | | Travel Time | Speed | Travel Time | Speed | Travel Time | Speed |
| Direction | Location | (min:sec) | (mph) | (min:sec) | (mph) | (min:sec) | (mph) |
| EB I-10 | Monroe Street Over Crossing to Golf Center Parkway Street Over Crossing | 2:07 | 62 | 2:08 | 62 | 2:12 | 60 |
| WB I-10 | Golf Center Parkway Over Crossing to Monroe Street Over Crossing | 2:12 | 61 | 2:08 | 62 | 2:08 | 62 |
| Source: Fehr & Peers, 2019. | | | | | | | |

During the PM peak hour, the eastbound I-10 travel time is similar under the No-Build and both Build Alternatives. In the westbound direction, with the addition of an auxiliary lane between Jackson Street and Monroe Street, travel time is decreased by approximately 1 minute and 30 seconds for both Build Alternatives when compared to the No-Build Alternative. Speed is also increased significantly, approximately 15 mph, under both Build Alternatives when compared to the No-Build Alternative.

**Table 2-28B Opening Year (2045) PM Peak Hour Travel Times**

| | | No-Build Alternative | | Alternative 2 (TD) | | Alternative 4 (DDI) | |
|---|---|---|---|---|---|---|---|
| | | Travel Time | Speed | Travel Time | Speed | Travel Time | Speed |
| Direction | Location | (min:sec) | (mph) | (min:sec) | (mph) | (min:sec) | (mph) |
| EB I-10 | Monroe Street Over Crossing to Golf Center Parkway Street Over Crossing | 2:07 | 62 | 2:10 | 61 | 2:12 | 59 |
| WB I-10 | Golf Center Parkway Over Crossing to Monroe Street Over Crossing | 3:56 | 34 | 2:36 | 51 | 2:30 | 50 |
| Source: Fehr & Peers, 2019. | | | | | | | |

In addition, other systemwide traffic metrics (number of vehicles served by the network, VHD, and average delay per vehicle) were reported for both the AM and PM peak periods under the No-Build and Build Alternatives in the Design Year (2045) which are shown in Table 2-29A and Table 2-29B.

During the AM peak hour, the number of vehicles served is only increased slightly for both Build Alternatives, 60 vehicles under Build Alternative 2 and 40 vehicles under Build Alternative 4, when compared to the No-Build Alternative. Under Build Alternative 2, VHD is improved by 32 hours, delay per vehicle is decreased by 2 seconds per vehicle. Under Build Alternative 4 VHD is decreased by 67 hours and delay per vehicle is decreased by 4 seconds.

**Table 2-29A Opening Year (2045) AM Peak Hour Systemwide MOEs**

| Performance Measure | No-Build Alternative | Alternative 2 (TD) | Alternative 4 (DDI) |
|---|---|---|---|
| Number of Vehicles Served | 41,130 | 41,190 | 41,170 |
| VHD (vehicle hours) | 1,440 | 1,409 | 1,373 |
| Delay per Vehicle (sec/veh) | 108 | 106 | 104 |
| Source: Fehr & Peers, 2019. | | | |

As shown in Table 2-29B, during the PM peak hour, when compared to the No-Build Alternative, Build Alternative 2 would result in an increase in the number of vehicles served of 3,720 vehicles, or nine percent, a decrease in vehicle hours of delay of 203 hours and a 18 second or 9 percent decrease in average delay per vehicle. Build Alternative 4 would result in an increase of vehicles served of 3,780 vehicles or 9 percent, with a decrease in vehicle hours of delay of 164 hours or 5 percent. Delay per vehicle is reduced by 16 seconds or 8 percent when compared to the No-Build Alternative.

**Table 2-29B Opening Year (2045) PM Peak Hour Systemwide MOEs**

| Performance Measure | No-Build Alternative | Alternative 2 (TD) | Alternative 4 (DDI) |
|---|---|---|---|
| Number of Vehicles Served | 43,550 | 47,270 | 47,330 |
| VHD (vehicle hours) | 3,062 | 2,859 | 2,898 |
| Delay per Vehicle (sec/veh) | 198 | 180 | 182 |
| Source: Fehr & Peers, 2019. | | | |

### *Study Conclusions*

The traffic operations analysis was conducted for the project alternatives including the No-Build Alternative under both Opening Year (2025) and Design Year (2045). Findings for each scenario are also summarized below.

### *Existing (2018)*

Under Existing Conditions (2018) all study facilities on I-10 were found to operate acceptably at LOS B or better during both the AM and PM peak hours. All study intersections along the Jackson Street corridor also operate at LOS D or better during the AM and PM peak hours.

### *Opening Year (2025)*

Under Opening Year (2025), under Build Alternative 2, all study freeway segments and study intersections operate acceptably. Due to limited congestion specifically on the I-10 corridor, changes in systemwide MOEs are minimal and travel time along the I-10 corridor is maintained in the study area.

Under Build Alternative 4, all study freeway segments and study intersections operate acceptably. Changes in systemwide MOEs are minimal with the number of vehicles served increasing by 190 vehicles, while vehicle hours of delay and average delay per vehicle are reduced by 2 percent. Travel time along the I- 10 corridor is consistent with the No-Build Alternative under Build Alternative 4 in 2025.

For PM peak hours under Opening Year (2025), Build Alternative 2 would improve one study intersection from unacceptable to acceptable operations, while all freeway segments continue to operate acceptably. Compared to the No-Build Alternative, Build Alternative 2 would serve 190 more vehicles through the study area, reduces vehicle hours of delay by 10 percent, and maintain similar travel time and speeds along the I-10 corridor during the PM peak period.

For PM peak hour under Opening Year (2025), Build Alternative 4 would improve one study intersection from unacceptable to acceptable operations, while all freeway segments continue to operate acceptably. Compared to the No-Build Alternative, Build Alternative 4 would serve 120 more vehicles, reduce vehicle hours of delay by 10 percent, and maintain similar travel time and speeds along the I-10 corridor during the PM peak period.

### *Design Year (2045)*

Build Alternative 2, for AM peak hour, would improve one study intersection and two freeway segments from unacceptable to acceptable operations. All systemwide MOEs including vehicles served, vehicle hours of delay, and average delay per vehicle would be improved slightly under Alternative 2. Travel time would be improved by 3 seconds along the corridor while speed would increase by 2 mph.

Alternative 4 (Diverging Diamond), for AM peak period, would improve one study intersection and two freeway segments from unacceptable to acceptable operations. These improvements correspond with systemwide MOE improvements, including an increase in vehicles served of approximately 60 vehicles. Vehicle hours of delay is reduced by 40 hours or 3 percent, with a similar decrease of 3 percent, corresponding to 3 seconds occurring for average delay per vehicle. Travel time is decreased by 3 seconds under Build Alternative 4, while speed is increased by 1 mph.

Build Alternative 2, during the PM peak period, would improve five study intersections and two freeway segments from unacceptable to acceptable operations. Under Build Alternative 2, systemwide MOEs would also be improved, with a 9 percent, or 3,720 vehicle, increase in the number of vehicles served. Vehicle hours of delay and average delay per vehicle are decreased by 9 percent (203 hours) and 9 percent (18 seconds per vehicle), respectively. Significant decreases in travel time would occur under Build Alternative 2 (1 minute and 30 seconds) with a corresponding increase in average speed of 17 mph in the westbound direction.

Build Alternative 4, during the PM peak period, would improve five study intersections and two freeway segments from unacceptable to acceptable operations. Under Build Alternative 4, systemwide MOEs would also be improved, with a 9 percent, or 3,780 vehicle, increase in the number of vehicles served. Vehicle hours of delay and average delay per vehicle are decreased by 5 percent (164 hours) and 8 percent (16 seconds per vehicle), respectively. Significant decreases in travel time would occur under Build Alternative 4 (1 minute and 24 seconds) with a corresponding increase in average speed of 16 mph in the westbound direction.

### *Pedestrian and Bicycle Facilities*

Safe and efficient accommodations of future pedestrians and bicyclists are being considered as part of the planning, design, and construction of this project. Alternatives 2 and 4 include construction of the Whitewater River Bridge Structure to accommodate two 12-foot-wide through lanes, 10' shoulders and 6-foot-wide sidewalks on each direction. Alternatives 2 and 4 would require realignment of CVAG's planned CV Link multi-use trail within the project limits to accommodate the widening of Jackson Street and provide the minimum vertical undercrossing clearance. Construction of new access ramps to future CV Link facility will also occur.

Design facilities for both Alternatives 2 and 4 would be fully accessible in accordance with the Department's Design Information Bulletin 82-05 "Pedestrian Accessibility Guidelines for Highway Projects," and will also be consistent with all applicable Americans with Disabilities Act-compatible crossing requirements. No long-term impacts to pedestrian and bicycle facilities are anticipated.

## 2.1.9.4 Avoidance, Minimization, and/or Mitigation Measures

Measure **TRA-1** will ensure that any delays in the project area as a result from construction activities will be avoided or minimized.

**TRA-1:** To minimize potential impacts to traffic during construction, the Traffic Management Plan (TMP) prepared for this project will include the following components: public information communications; information for motorists from changeable message signs or temporary signs; incident management plan that would define parameters and responsibilities to respond to incidents on and adjacent to the construction corridor; construction strategies, such as traffic plans; and information regarding construction staging, lane modifications (e.g., reduced lane widths or lane closures); demand management plan to remove traffic from existing routes by using this such as expanded park and ride lots, transit service or transit and ride share incentives; and the use of alternate routes/detours. In particular, the TMP shall ensure that emergency responders have adequate access during all phases of construction, and shall provide for emergency contact points between the construction engineer and all emergency responders.

## 2.1.10 Visual/Aesthetics

### 2.1.10.1 Regulatory Setting

NEPA of 1969, as amended, establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and aesthetically (emphasis added) and culturally pleasing surroundings (42 USC 4331[b][2]). To further emphasize this point, the FHWA, in its implementation of NEPA (23 USC 109[h]), directs that final decisions on projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

CEQA establishes that it is the policy of the state to take all action necessary to provide the people of the state "with … enjoyment of aesthetic, natural, scenic and historic environmental qualities" (CA Public Resources Code [PRC] Section 21001[b]).).

California Streets and Highways Code Section 92.3 directs the Department to use drought resistant landscaping and recycled water when feasible, and incorporate native wildflowers and native and climate-appropriate vegetation into the planting design when appropriate.

### 2.1.10.2 Affected Environment

Information in this section is based on the February 2019 scenic resource evaluation and visual assessment memorandum (Caltrans 2019).

The project limits extend from approximately Post Mile (PM) R54.9 to PM R56.5 along I-10 and from Kenner Avenue (South of I-10) to Atlantic Avenue (North of I-10) along Jackson Street in the City of Indio, San Bernardino County, California.

The regional landscape is the general visual environment of the project area in the Coachella Valley and adjoining ridgelines including the Joshua Tree National Monument (Indio Hills and the Little San Bernardino Mountains) to the north; Mecca Hills to the east, the Santa Rosa Mountains to the south; the San Jacinto Mountains to the southwest; and the San Bernardino Mountains to the far west of the project site. The Santa Rosa, San Jacinto and San Bernardino Mountains to the south, southwest, and northwest are larger in scale and darker in color than the ridgelines to the north and east. The horizontal pattern of development parallels the low-lying terrain of the Valley basin and is positioned within the verticality and scale of the surrounding ridgelines.

Within the general area of the project site, the surrounding landscape is characterized as urbanized due to existing and on-going development near the I-10/Jackson Street Interchange; land uses within the vicinity of the interchange consist of vacant land, commercial uses, residential development, school (Andrew Jackson Elementary School), and recreational use (North Jackson Park). To the south of I-10, the Whitewater River flows parallel to the freeway in a southeastern direction towards the Salton Sea. The I-10 freeway within the project area currently consists of three travel lanes in each direction with paved roadside shoulders and unpaved median. Along the I-10 freeway approaching the Jackson Street Interchange, the existing Jackson Street Bridge spanning over the I-10 is visible to motorists on the freeway, while the Whitewater River levee is visible to the south and commercial development to the north. At the I-10/Jackson Street Interchange, vegetation generally consists of stabilized sand and fill materials with non-native vegetation and ornamental trees.

The project is not on, or adjacent to, an officially-designated state scenic highway, according to the Caltrans California Scenic Highway Mapping System. A segment of State Route 74 (SR-74) is the nearest officially designated scenic highway, which is located approximately 10 miles west of the project site.

As shown on **Image 2-1**, located to the west of the project site along the I-10 eastbound travel lanes (looking east toward the interchange), the topography is relatively flat in the foreground and middle-ground views. Background views include the ridgelines of the Little San Bernardino Mountains. Commercial development demarcated by chain link fencing generally parallels the alignment of the I-10 freeway to the north. Sparse vegetation and ornamental trees on either side of the I-10 are visible adjacent to the shoulder of the freeway. To the south of the I-10, an earthen levee parallels the freeway obstructing views to the Whitewater River and partially obstructing background views of the Santa Rosa Mountains.




SOURCE: Google StreetView 2019

**Image 2-1**
View looking east along I-10 toward Jackson Street

**Image 2-2** is located east of the project site along the I-10 westbound travel lanes (looking west towards the interchange). Topography is relatively flat in the foreground and middle-ground views. Background views include ridgelines of the San Jacinto, San Bernardino and Little San Bernardino Mountains which contrasts with existing commercial and residential development north of the freeway. Earthen levees to the south obstruct views of the Whitewater River.




SOURCE: Google StreetView 2019

**Image 2-2**
View looking west along I-10 toward Jackson Street

**Image 2-3** was taken north of the project site along Jackson Street and looks south approaching the interchange. Major features include topographic variation and Santa Rosa Mountains in the background. Middle ground views consist of the Showcase at Indio Shopping Center and Jackson Street. The developed uses in this viewpoint follows the horizontal pattern of the Coachella Valley punctuated by the vertical lines of ornamental trees, landscaping and street lighting.




SOURCE: Google StreetView 2019

**Image 2-3**
View looking south along Jackson Street toward the I-10 Interchange

### *Resource Change*

Alternatives 2 and 4 propose to reconstruct the I-10/Jackson Street interchange, which would widen the Jackson Street overcrossing and Whitewater River Bridge within the same area of these two existing structures to accommodate the additional travel lanes, bike lanes, shoulder and widened sidewalks. Both build alternatives would be constructed similar to the existing profile of the bridge structures. Alternative 2 is proposing to reconstruct the existing structures through stage construction by constructing a new bridge at the eastern side of the bridge and adjoining the new structure to the existing bridge, while Alternative 4 is proposing to construct parallel bridge structures adjacent to the Jackson Street overcrossing and Whitewater River Bridge.

#### *Jackson Street Overcrossing*

The existing Jackson Street overcrossing is approximately 32 feet in height from ground level to the highest point of the structure and the reconstructed bridge structure would be approximately 37 feet in height for Alternative 2 and Alternative 4. Although there is an increase of 5 feet between existing conditions and both build alternatives, the Jackson Street overcrossing bridge deck structure would be constructed at generally the same height as the existing structure; the increase in height is attributed to the installation of chain-link railing at the edges of the bridges to replace the existing barrier railing. The project would widen the roadway from two lanes to four lanes. Currently, the Jackson Street Bridge is 45 feet wide and would be widened to approximately 122 feet under Alternative 2. The twin-bridge layout proposed under Alternative 4 would have a similar total cross-sectional width of 122 feet as Alternative 2, but would have a variable gap between the northbound and southbound bridges.

#### *Whitewater Bridge*

As part of the proposed improvements for the project, the Whitewater Bridge would be widened from two lanes to four lanes. Currently, the Whitewater Bridge is approximately 46 feet in height from the bottom of the channel to the highest point of the bridge (barrier railing). Proposed bridge improvements at the Whitewater Bridge would result in an increase of approximately 51 feet in height for Alternative 2 and Alternative 4. Although there is an increase of 5 feet between existing conditions and both build alternatives, the Whitewater Bridge deck structure would be constructed at generally the same height as the existing structure; the increase in height is attributed to the installation of chain-link railing at the edges of the bridges to replace the existing barrier railing. Similar to the improvements at the Jackson Street overcrossing, the existing 45-foot-wide Whitewater Bridge would be widened to approximately 128 feet under Alternative 2. The twin-bridge layout proposed under Alternative 4 would have a total cross-sectional width of approximately 92 feet as Alternative 2, but would have a variable gap between the northbound and southbound bridges.

#### *Jackson Street*

Jackson Street, south of the Whitewater Bridge, is currently constructed as an 86-foot-wide roadway. Proposed improvements under Alternatives 2 and 4 would require widening Jackson Street from south of the Whitewater Bridge to north of Kenner Avenue by 6 feet (92-foot cross-section) to transition the additional travel lanes to existing lane geometrics along Jackson Street, south of Kenner Avenue.

#### *Compatibility of Proposed Improvements*

The modifications introduced by the project are considered compatible with the existing character of the I-10/Jackson Street Interchange area; interchange improvements would be constructed parallel to the existing interchange ramps, structures and roadway. Bridge structure improvements would be constructed within the same general profile of existing bridge structures and the widening of Jackson Street would follow the same alignment of the existing roadway. Compatible landscaping and aesthetic treatments to the bridge structures would also be incorporated. The project would also accommodate the existing CV

Link Project, a multi-use trail that will be constructed parallel to the Whitewater River within the I-10/Jackson Street Interchange. Therefore, the project would result in a very low visual resource change.

### *Viewer Sensitivity*

Multiple viewer groups adjoin the project site and consist of residential communities, various commercial uses, and recreational users from North Jackson Park. Other viewer groups include travelers and daily commuters along the I-10 corridor and Jackson Street, and commercial/business employees and customers within the project area. These viewer groups are considered to have low sensitivity to visual changes of the proposed interchange and roadway improvements since they would have limited exposure to the project elements as they travel in vehicles along the I-10 freeway and Jackson Street.

Pedestrians and bicyclists are roadway users along Jackson Street with low to moderate sensitivity to change. While they move through the roadway similar to motorists, they travel more slowly and have a longer exposure to visual changes along the I-10 freeway and Jackson Street. Residential viewers have higher sensitivity due to the long-term and constant views of the proposed improvements; however, the changes would not be visible from the vantage point of existing residences within the project area; residential views are obstructed. Altogether, all user groups' sensitivities to the project are considered low.

### *Viewer Response*

Alternatives 2 and 4 would reconstruct and widen the Jackson Street interchange within the same area as the existing interchange and would maintain the general bridge profile after construction. As described in *Viewer Sensitivity*, the various user groups (pedestrians, bicyclists, motorists, and residents) would have a low sensitivity to the project's changes. Furthermore, while residential viewers may have higher sensitivity, minimal visual changes are anticipated for both build alternatives as the interchange and roadways are existing facilities and are not visible from residences near the project site. Existing views of development, interchange, roadways, power lines and landscaping are prominent in the visual landscape and would result in minimal changes to the existing urban landscape with the implementation of either Alternative 2 or Alternative 4. The minimal changes, combined with the lower sensitivities of user groups to these changes, ensure that viewers would not be negatively affected by the visual changes resulting from the project.

## 2.1.10.3 Environmental Consequences

### *Temporary*

#### *No-Build Alternative*

No construction would occur as a result of the No-Build Alternative, and therefore there would be no temporary visual impacts. The No-Build Alternative would maintain the existing roadway and interchange; therefore, it would not alter existing views.

#### *Build Alternatives 2 and 4*

Construction of both Build Alternatives would introduce temporary visual disruptions in the form of construction equipment. These impacts would be temporary in nature, during the duration of construction, and would not be considered substantial in nature.

### *Permanent Impacts*

#### *No-Build Alternative*

The No-Build Alternative would maintain the existing roadway and interchange; therefore, it would not alter existing views. Existing visual/aesthetic resources would not be permanently affected by the No-Build Alternative.

#### *Build Alternatives 2 and 4*

A review of the project site and project plans indicates that the Build Alternative would not result in substantial adverse impacts on the visual environment. Resulting changes to vertical clearances for the proposed bridge improvements and horizontal widths for the proposed roadway widening would be minimal and slightly alter the current visual landscape since they are existing facilities. Materials and design of site features are proposed to be appropriate for the urban visual character of the project surroundings and would be consistent with the structural design elements in the Coachella Valley as described in the I-10 Corridor Master Plan (Caltrans District 8, 2013). Hardscape and landscape design within the project area would improve aesthetics by enhancing the visual integrity of the I-10 Corridor through implementation of a unifying desert theme and use of native and indigenous plant materials. The project would not substantially alter visual resources; therefore, the project would not result in a significant visual impact.

The project is not on, or adjacent to, an officially-designated state scenic highway, according to the Caltrans California Scenic Highway Mapping System. A segment of SR-74 is the nearest officially designated scenic highway, which is located approximately 10 miles west of the project site. The project would not adversely affect any "Designated Scenic Resource" as defined by CEQA statutes or guidelines, or by Department policy. The modifications introduced by this project are considered highly compatible with the existing character of the I-10/Jackson Street Interchange. The scenic resource evaluation and visual assessment memorandum prepared for the Build Alternative indicated that the project would not adversely affect any eligible scenic resource, as defined by CEQA statutes and guidelines or Department policy. Therefore, the project would result in a very low visual resource change.

### 2.1.10.4 Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are required for visual/aesthetic impacts for this project.

## 2.1.11 Cultural Resources

### 2.1.11.1 Regulatory Setting

The term "cultural resources," as used in this document, refers to the "built environment" (e.g., structures, bridges, railroads, water conveyance systems), places of traditional or cultural importance, and archaeological sites (both prehistoric and historic), regardless of significance. Under federal and state laws, cultural resources that meet certain criteria of significance are referred to by various terms including "historic properties," "historic sites," "historical resources," and "tribal cultural resources." Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act (NHPA) of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on those undertakings, following regulations issued by the ACHP (36 Code of Federal Regulations [CFR] 800). On January 1, 2014, the First Amended Section 106 Programmatic Agreement (PA) among the Federal Highway Administration (FHWA), the ACHP, the California State Historic Preservation Officer (SHPO), and the Department went into effect for Department projects, both state and local, with FHWA involvement. The PA implements the ACHP's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to the Department. The FHWA's responsibilities under the PA have been assigned to the Department as part of the Surface Transportation Project Delivery Program (23 United States Code [USC] 327).

The California Environmental Quality Act (CEQA) requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as "unique" archaeological resources. California Public Resources Code (PRC) Section 5024.1 established the California Register of Historical Resources (CRHR) and outlined the necessary criteria for a cultural resource to be considered eligible for listing in the CRHR and, therefore, a historical resource. Historical resources are defined in PRC Section 5020.1(j). In 2014, Assembly Bill 52 (AB 52) added the term "tribal cultural resources" to CEQA, and AB 52 is commonly referenced instead of CEQA when discussing the process to identify tribal cultural resources (as well as identifying measures to avoid, preserve, or mitigate effects to them). Defined in PRC Section 21074(a), a tribal cultural resource is a CRHR or local register eligible site, feature, place, cultural landscape, or object which has a cultural value to a California Native American tribe. Tribal cultural resources must also meet the definition of a historical resource. Unique archaeological resources are referenced in PRC Section 21083.2.

PRC Section 5024 requires state agencies to identify and protect state-owned historical resources that meet the NRHP listing criteria. It further requires the Department to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer (SHPO) before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the NRHP or are registered or eligible for registration as California Historical Landmarks. Procedures for compliance with PRC Section 5024 are outlined in a Memorandum of Understanding (MOU) between the Department and SHPO, effective January 1, 2015. For most federal-aid projects on the State Highway System, compliance with the Section 106 PA will satisfy the requirements of PRC Section 5024.

### 2.1.11.2 Affected Environment

Information from this section is based on the *Historic Property Survey Report* (ESA 2019a), which includes an *Archaeological Survey Report* (ESA 2019b) and a Historic Resources Evaluation Report (ESA 2019c) prepared for this project.

#### *Area of Potential Effects*

In accordance with Section 106 PA Stipulation VIII.A, the Area of Potential Effects (APE) for the project was established in consultation with Ashley Bowman, Caltrans District 8 Environmental Planning – Cultural Studies, Lead Archaeological Surveyor, and Caltrans Project Manager Martha Santana in August of 2019.

The APE was established as approximately 82 acres where direct and indirect effects to historic properties can occur. The APE's area of direct effects encompasses 79 acres and includes the construction footprints for Build Alternatives 2 and 4 as well as equipment staging areas located on the levees on the northern and southern sides of the Whitewater River Channel. The APE was extended to include adjacent parcels with existing structures for indirect effects such as noise, vibration, sound and visual effects. The vertical APE includes the anticipated maximum depth of ground disturbance of 30 feet below ground surface for the bridge pier footings, and the maximum height of aboveground components is expected to reach 86 feet in height, which is measured from the bottom of Whitewater Channel to top of the light poles. The APE is underlain by Holocene age alluvial deposits and there exists the possibility that these deposits contain subsurface archaeological resources that have been buried by the deposition of alluvial materials during the entirety of prehistoric human use of the region. However, given the APE and its immediate vicinity have been subject to extensive disturbances associated with the construction of shopping centers, roads, and the existing I-10 Jackson Street interchange, as well as the channelizing of the Whitewater River, the likelihood of encountering intact subsurface archaeological deposits is low.

#### *Summary of Identification Efforts*

Prior to field investigations, a cultural resource records search and literature review was conducted by the staff of the Eastern Information Center (EIC) on July 19, 2018. The records search included a review of all recorded archaeological resources and previous studies within the APE and a 1-mile radius around the APE, as well as all historic period built environment resources within a 0.25-mile radius of the APE. The California Points of Historical Interest, the California Historical Landmarks, the California Register of Historical Resources (CRHR), the National Register of Historic Places (NRHP), and the California Historical Resources Inventory listings were also reviewed for resources within the APE.

Of the previous field studies conducted within a 1-mile radius, three overlap the current project's APE. The records search results indicate that three historic period built resources have been previously recorded within a 1-mile radius of the APE: P-33-008151 (a 1930s single-family residence), P-33-008152 (a collection of 1940s residential and utility buildings), and P-33-009498 (a segment of the Union Pacific/Southern Pacific Railroad). These three previously recorded built resources are located 950 feet or more from the APE's area of direct effects and outside of the APE's area of indirect effects, and they would not be subject to indirect visual effects as a result of project construction or operation.

A review of the Caltrans Historic Bridge Survey lists the one bridge located in the APE, the Jackson Street OC (Bridge No. 56-0612, PM R55.74), as Category 5, not eligible for listing in the NRHP.

On January 14, 2019, an intensive archaeological pedestrian survey of the APE's area of direct effects was conducted to identify archaeological resources that could be impacted by project-related ground-disturbing activities. No new archaeological resources were identified as a result of the survey.

### *Native American Consultation*

The Native American Heritage Commission (NAHC) was contacted on March 14, 2018, to request a search of the Sacred Lands File (SLF). The results of the SLF search conducted by the NAHC were negative, but the NAHC provided Native American contacts for consultation. On March 27, 2018, the Department sent letters to six Native American groups affiliated with the APE and its surrounding areas as part of identification efforts carried out pursuant to Section 106 of the NHPA under California Public Resources Code (PRC) Section 21074(a) and 21080.3.1 (i.e., Assembly Bill 52 [AB 52]) to the following individuals:

- Patricia Garcia-Plotkin, Tribal Historic Preservation Officer, Agua Caliente Band of Cahuilla Indians
- Amanda Vance, Chairperson, Augustine Band of Mission Indians
- Doug Welmas, Chairperson, Cabazon Band of Mission Indians
- Joseph Ontiveros, Tribal Historic Preservation Officer, Soboba Band of Luiseño Indians
- Michael Mirelez, Cultural Resource Coordinator, Torres-Martinez Desert Cahuilla Indians
- Anthony Madrigal, Tribal Historic Preservation Officer, Twenty-Nine Palms Band of Mission Indians

Three responses to the Section 106 initiation letter and AB 52 notification letter were received:

- In a letter dated April 4, 2018, Judy Strapp, Director of Cultural Affairs for the Cabazon Band of Mission Indians, stated the project is located outside the Tribe's reservation boundary and the Tribe has no specific information regarding cultural resources in the vicinity of the project. Ms. Strapp requested that the Tribe be kept informed regarding any findings as the project moves forward.
- In a letter dated April 11, 2018, Victoria Martin, Tribal Secretary for the Augustin Band of Cahuilla Indians, stated the Tribe is not aware cultural resources within the project vicinity. Ms. Martin recommended that Native American monitor be retained to monitor the pre-construction and construction phases of the project and requested to be notified should cultural resources be identified during project development.
- In a letter dated April 11, 2018, Katie Croft, Cultural Resources Manager for the Agua Caliente Band of Cahuilla Indians, stated the project is located within the Tribe's traditional use area but concluded consultation efforts by deferring to the Cabazon Band of Mission Indians and the Twenty-Nine Palms Band of Mission Indians.

### *Local Historical Society / Historic Preservation Group*

On December 11, 2018, the Coachella Valley History Museum was contacted via letter. The letter inquired if the museum has any information or concerns regarding cultural resources within or adjacent to the APE. A follow-up phone call to the museum was placed on April 25, 2019, and a message was left with a receptionist requesting that the Museum's archivist respond with concerns and/or information regarding cultural resources within the APE. To date, no response has been received.

### *Archaeological Field Methods*

On January 14, 2019, an intensive archaeological pedestrian survey of the APE's area of direct effects was conducted to identify archaeological resources that could be impacted by project-related ground-disturbing activities. Given the developed nature of the APE, an opportunistic survey strategy was employed to identify undeveloped and open areas within the APE's area of direct impacts where native ground surface was visible. All accessible areas containing undeveloped native ground surface were

subject to survey and inspection using transects spaced at intervals no greater than 15 meters (approximately 50 feet).

Much of the APE's area of direct effects is composed of developed, paved, and otherwise landscaped areas with no visible undisturbed ground surface. The portions of the APE's area of direct effects along Jackson Street include paved road and bridge surfaces. The portions associated with I-10 and the associated Jackson on/off ramps are composed of paved road surfaces, elevated road and ramp beds, and landscaped medians. The portions that will be used as staging areas include large trapezoidal-shaped earthen levees on the north and south sides of Whitewater River and a graded lot where landscape materials are sold. No new archaeological resources were identified as a result of the survey.

#### *Historic Build Environment*

On January 14, 2019, cultural resources staff conducted a field survey of the APE, documenting historic-age buildings within the APE through digital photographs and field notes. Archival review identified only three built resources that pre-date 1974: 43486 Jackson Street (APN 692-500-003); 43143 Jackson Street (APN 610-230-002); and 43320 Jackson Street (APN 692-060-001). Of these three resources, one, 43320 Jackson Street (APN 692-060-001), is located in the APE's area of direct effects. The built resources located at 43143 and 43486 Jackson Street are not located within the APE's area of direct effects; however, the APE was extended to include the parcels on which the resources are located due to potential indirect effects such as noise, vibration, sound, and visual effects. These three historic-age buildings were evaluated and they were found to be ineligible for listing on the NRHP or CRHR.

#### *Study Findings and Conclusions*

##### *Archaeology*

No archaeological resources were identified in the APE through archival research or the field survey. Neither the SLF search nor the AB 52 consultation identify the presence of Native American cultural resources within the APE. Geologic and soils maps indicate the APE is situated on alluvial landforms deposited during the Holocene, which encompasses the prehistoric use of the region. As such, there exists the possibility that subsurface archaeological deposits may be located within the APE. However, given the highly disturbed nature of the APE, which is largely composed of residential and commercial development, the likelihood of encountering intact subsurface archaeological deposits during project construction is low. Given that no archaeological resources were identified as a result of archival research and field investigation, and the likelihood for encountering intact subsurface archaeological deposits is low.

##### *Historic Built Environment*

Three historic-age buildings located within the APE were evaluated for potential historic significance and were found to be ineligible for listing on the NRHP or CRHR. They are therefore not considered to be historic properties pursuant to Section 106 of the NHPA or historical resources pursuant to CEQA. Additionally, a review of the Caltrans Historic Bridge Inventory identified the Jackson Street OC (Bridge No. 56-612, PM R55.74) within the APE's area of direct effects. The bridge is listed as Category 5, not eligible for listing in the NRHP.

### 2.1.11.3 Environmental Consequences

#### *Temporary*

##### *No-Build Alternative*

The No-Build Alternative would not result in project construction; therefore, no construction-related impacts to cultural resources would occur under the No-Build Alternative.

*Build Alternatives 2 and 4*

No cultural resources were identified within the APE during the archaeological survey. The archaeological survey revealed the entire surface of the APE was disturbed previously by road and interstate construction in addition to channelization and regular maintenance of the CVSC. Given that no archaeological resources were identified as a result of archival research and field investigation, and the likelihood for encountering intact subsurface archaeological deposits is low.

If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the county coroner shall be contacted. Pursuant to PRC Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), which will then notify the most likely descendant. At that time, the person who discovered the remains will contact the Caltrans District 8 Environmental Branch so it can work with the most likely descendent on the respectful treatment and disposition of the remains. Further provisions of PRC Section 5097.98 are to be followed as applicable.

Section 4(f) of the Department of Transportation Act of 1966 provides protection for historic properties. However, it has been determined that the properties within the project vicinity do not meet the definition of a Section 4(f) resource. Please see Appendix A under the heading "Resources Evaluated Relative to the Requirements of Section 4(f)" for additional details.

Based on the above discussion and analysis, the proposed Build Alternatives would have no impacts under CEQA and no adverse effects under NEPA.

***Permanent***

*No-Build Alternative*

Under the No-Build Alternative, historic properties and archaeological resources would not be affected because no ground disturbance would take place.

*Build Alternatives 2 and 4*

As stated above, no archaeological resources were identified within the project APE; therefore, no impacts to such resources would occur as a result of the project. No built environment resources were found to be eligible for the NRHP or CRHR and therefore there will be no impacts to historic properties or historical resources.

### 2.1.11.4 Avoidance, Minimization, and/or Mitigation Measures

Measures **CR-1** and **CR-2**, which are standard measures for all Department projects, are included to ensure that potential effects on cultural resources and human remains, should they exist and be discovered during construction, would be avoided.

**CR-1:** If cultural materials are discovered during construction, all earthmoving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

**CR-2:** If human remains are discovered, California Health and Safety Code (H&SC) Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. If the remains are thought by the coroner to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), who, pursuant to PRC Section 5097.98, will then notify the Most Likely Descendent (MLD). The person who discovered the remains will contact the District 8 Division of Environmental Planning; Andrew Walters, DEBC: (909)383-2647 and Gary Jones, DNAC: (909)383-7505. Further provisions of PRC 5097.98 are to be followed as applicable.

# 2.2 Physical Environment

## 2.2.1 Hydrology and Floodplain

### 2.2.1.1 Regulatory Setting

Executive Order (EO) 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration (FHWA) requirements for compliance are outlined in 23 Code of Federal Regulations (CFR) 650 Subpart A.

To comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments
- Risks of the action
- Impacts on natural and beneficial floodplain values
- Support of incompatible floodplain development
- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values affected by the project

The base floodplain is defined as "the area subject to flooding by the flood or tide having a 1 percent chance of being exceeded in any given year." An encroachment is defined as "an action within the limits of the base floodplain."

### 2.2.1.2 Affected Environment

The primary source used in the preparation of this section is the *I-10/Jackson Street Interchange Improvement Project Location Hydraulic Study* dated February 2019 (Pace 2019).

The project is located in the Middle Whitewater Watershed, which is in the Whitewater Hydrologic Unit, Coachella Hydrologic Area, and the Indio Hydrologic Sub-Area (HSA 719.47) according to the Department's Water Quality Planning Tool (WQPT). This hydrologic area covers over 540,000 acres in Riverside County. The properties surrounding the project area consist of retails, restaurants, commercial developments to the north side of the freeway and elementary school, park, undeveloped lands, limited industrial and residential to the south side of the freeway.

The project is within the Whitewater Hydraulic Unit, Hydrologic Unit Code 81002010705 (Caltrans WQPT), located within the Coachella Hydrologic Area. The watershed has its headwaters in the San Bernardino Mountains and is tributary to the Salton Sea.

The CVSC, a CVWD facility, is within the project area. Within the project limits, the channel is a FEMA mapped Zone AE floodplain contained within provisionally accredited levees (FEMA Panel number 06065C2252H, dated May 29, 2015). The channel flows north to south and is tributary to the Salton Sea. Within the project area, the channel runs west to east. The Zone AE flood zone is contained within the CVSC trapezoidal earthen channel levees that is a CVWD facility. The I-10/Jackson interchange is not located in a designated FEMA flood zone except a portion of the right-of-way at the south side of the I-10 eastbound on-ramp. Refer to Figure 2-8.

Natural and beneficial floodplain values include, but are not limited to fish, wildlife, plants, open space, natural beauty, scientific study, outdoor recreation, agriculture, forestry, natural moderation of floods,

water quality maintenance, and ground water recharge. The CVSC contributes to groundwater recharge through unlined channel walls. Engineered groundwater recharge facilities are not present within the project limits, and there is no change in channel lining so there are no risks to the groundwater recharge beneficial use. The Colorado River Regional Water Quality Control Board does not consider groundwater recharge as one of the CVSC's beneficial uses.

#### 2.2.1.3 Environmental Consequences

##### *Temporary*

*No-Build Alternative*

Under the No-Build Alternative, none of the proposed project improvements would be implemented; therefore, there would be no short-term impacts to hydrology or floodplains.

*Build Alternatives 2 and 4*

The project footprint for both Alternatives 2 and 4 are similar; therefore, the discussion of Alternatives 2 and 4 below is combined into a single discussion of Build Alternatives, since implementation of either Build Alternative would result in similar impacts.

The project lies within a Zone AE floodplain. According to the *Location Hydraulic Study*, the flood hazard and flood depths in the CVSC will be minimally impacted as a result of the proposed project. The work in this area is limited to improvements on an existing bridge. There is low risk to open space, natural beauty, scientific study, outdoor recreation, agriculture, forestry, natural moderation of floods, water quality maintenance, and groundwater recharge in agriculture due to this project.

During construction, temporary measures that will be taken to minimize impact to Contact Water Recreation (REC1) and Non-contact Water Recreation (REC2) include staging and work windows. Staging consists of implementing a plan to provide safe and efficient construction operations as well as to minimize community impacts during construction. These measures include appropriate signage, detours, and public notices. Temporary impacts to Warm Freshwater Habitat (WARM), Wildlife Habitat (WILD) and Rare, Threatened, or Endangered Species (RARE) during construction will be minimized through implementing the avoidance and minimization measures **BIO-1** through **BIO-7** identified in Section 2.3, Biological Environment.

The Coachella Valley Stormwater Channel is an unlined flood control facility. The unlined channel provides some infiltration of stormwater runoff to groundwater as the soils within Whitewater River are classified as fine sand that is hydrologic soil group "A" which has the highest infiltration rate. There are no engineered groundwater recharge facilities within the project limits at the present, and there is no change in channel lining so there are no risks to the groundwater recharge beneficial use.

##### *Permanent*

*No-Build Alternative*

Under the No-Build Alternative, none of the proposed project improvements would be implemented; therefore, there would be no long-term impacts to hydrology or floodplains.




SOURCE: FEMA 2020; Mapbox, 2020.

I-10 / Jackson Street Interchange Project

**Figure 2-8**

FEMA Flood Zones

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*Build Alternatives 2 and 4*

The project includes permanent improvements within floodplain Zone AE; however, the project improvements that occur within the Zone AE floodplain do support incompatible floodplain development. The City of Indio participates in the National Flood Insurance Program (NFIP) (FEMA, NFIP).

The risk to life and property is low; there is no change to the current risk to life and property as a result of the proposed action within the SFHA. The proposed risks to natural and beneficial floodplain values are minimal and the impairments to the beneficial uses are temporary due to construction activities. There is no support for further incompatible floodplain development. Therefore, the combined Assessed Risk Level is LOW.

Through analysis and evaluation in the Location Hydraulic Study, there are no permanent impacts due to the proposed improvements; therefore, no permanent mitigation measures are necessary.

The Caltrans Standard Environmental Reference Chapter 17 criteria is met in the Coachella Valley Stormwater Channel because the proposed actions in these areas do not affect the boundaries of the mapped floodplain. This area constitutes as Minimal Encroachment. The proposed project would not result in a significant encroachment into a floodplain as defined in 23 CFR 650.105.

#### 2.2.1.4 Avoidance, Minimization, and/or Mitigation Measures

No Avoidance, Minimization, and/or Mitigation Measures are required. Additional measures **BIO-1** through **BIO-7** related to biological resources are also included in Section 2.3, Biological Resources.

## 2.2.2 Water Quality and Stormwater Runoff

### 2.2.2.1 Regulatory Setting

#### *Federal Requirements: Clean Water Act*

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States (U.S.) from any point source1 unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. This act and its amendments are known today as the Clean Water Act (CWA). Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of stormwater from municipal and industrial/construction point sources to comply with the NPDES permit scheme. The following are important CWA sections:

- Sections 303 and 304 require states to issue water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to waters of the U.S. to obtain certification from the state that the discharge will comply with other provisions of the act. This is most frequently required in tandem with a Section 404 permit request (see below).
- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. Regional Water Quality Control Boards (RWQCBs) administer this permitting program in California. Section 402(p) requires permits for discharges of stormwater from industrial/construction and municipal separate storm sewer systems (MS4s).
- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the U.S. This permit program is administered by the U.S. Army Corps of Engineers (USACE).

The goal of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

The USACE issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of the USACE's Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the USACE decision to approve is based on compliance with U.S. Environmental Protection Agency's (U.S. EPA's) Section 404 (b)(1) Guidelines (40 Code of Federal Regulations [CFR] Part 230), and whether the permit approval is in the public interest. The Section 404(b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S. and not have any other significant adverse environmental consequences. According to the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or

[1] A point source is any discrete conveyance such as a pipe or a man-made ditch.

toxic effluent2 standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. In addition, every permit from the USACE, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4. A discussion of the LEDPA determination, if any, for the document is included in the Wetlands and Other Waters section.

### *State Requirements: Porter-Cologne Water Quality Control Act*

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. It predates the CWA and regulates discharges to waters of the state. Waters of the state include more than just waters of the U.S., like groundwater and surface waters not considered waters of the U.S. Additionally, it prohibits discharges of "waste" as defined, and this definition is broader than the CWA definition of "pollutant." Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA and regulating discharges to ensure compliance with the water quality standards. Details about water quality standards in a project area are included in the applicable RWQCB Basin Plan. In California, RWQCBs designate beneficial uses for all water body segments in their jurisdictions and then set criteria necessary to protect those uses. As a result, the water quality standards developed for particular water segments are based on the designated use and vary depending on that use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants. These waters are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-point source controls (NPDES permits or WDRs), the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

### *State Water Resources Control Board and Regional Water Quality Control Boards*

The SWRCB administers water rights, sets water pollution control policy, and issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, TMDLs, and NPDES permits. RWCQBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

#### *National Pollutant Discharge Elimination System (NPDES) Program*

#### *Municipal Separate Storm Sewer Systems (MS4)*

Section 402(p) of the CWA requires the issuance of NPDES permits for five categories of stormwater discharges, including Municipal Separate Storm Sewer Systems (MS4s). An MS4 is defined as "any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over stormwater, that is designed or used for collecting or conveying stormwater." The SWRCB has identified the Department as an owner/operator of an MS4 under federal regulations. The Department's MS4 permit covers all Department rights-of-way, properties,

[2] The U.S. EPA defines "effluent" as "wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall."

facilities, and activities in the state. The SWRCB or the RWQCB issues NPDES permits for 5 years, and permit requirements remain active until a new permit has been adopted.

The Department's MS4 Permit, Order No. 2012-0011-DWQ (adopted on September 19, 2012, and effective on July 1, 2013), as amended by Order No. 2014-0006-EXEC (effective January 17, 2014), Order No. 2014-0077-DWQ (effective May 20, 2014) and Order No. 2015-0036-EXEC (conformed and effective April 7, 2015) has three basic requirements:

1. The Department must comply with the requirements of the Construction General Permit (see below).
2. The Department must implement a year-round program in all parts of the State to effectively control stormwater and non-stormwater discharges.
3. The Department stormwater discharges must meet water quality standards through implementation of permanent and temporary (construction) Best Management Practices (BMPs), to the maximum extent practicable, and other measures as the SWRCB determines to be necessary to meet the water quality standards.

To comply with the permit, the Department developed the Statewide Stormwater Management Plan (SWMP) to address stormwater pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns responsibilities within the Department for implementing stormwater management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices the Department uses to reduce pollutants in stormwater and non-stormwater discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of BMPs. The project would be programmed to follow the guidelines and procedures outlined in the latest SWMP to address stormwater runoff.

### *Construction General Permit*

Construction General Permit, Order No. 2009-0009-DWQ (adopted on September 2, 2009, and effective on July 1, 2010), as amended by Order No. 2010-0014-DWQ (effective February 14, 2011) and Order No. 2012-0006-DWQ (effective on July 17, 2012). The permit regulates stormwater discharges from construction sites that result in a Disturbed Soil Area (DSA) of 1 acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all stormwater discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least 1 acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than 1 acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop Stormwater Pollution Prevention Plans (SWPPPs); to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

The Construction General Permit separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory stormwater runoff pH and turbidity monitoring, and before construction and after construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective SWPPP. In accordance with the Department's SWMP and Standard Specifications, a Water Pollution Control Program (WPCP) is necessary for projects with DSA less than 1 acre.

### *Section 401 Permitting*

Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a water of the U.S. must obtain a 401 Certification, which certifies that the project will be in compliance with state water quality standards. The most common federal permits triggering 401 Certification are CWA Section 404 permits issued by the USACE. The 401 permit certifications are obtained from the appropriate RWQCB, dependent on the project location, and are required before the USACE issues a 404 permit.

In some cases, the RWQCB may have specific concerns with discharges associated with a project. As a result, the RWQCB may issue a set of requirements known as WDRs under the State Water Code (Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.

## 2.2.2.2 Affected Environment

The primary source used in the preparation of this section is the *Water Quality Assessment Report prepared for the I-10/Jackson Street Interchange Improvement Project* dated April 2019 (HNTB 2019) and the Natural Environment Study (ESA 2019).

The project is located in the Middle Whitewater River Watershed, which is in the Whitewater Hydrologic Unit, Coachella Hydrologic Area, and the Indio Hydrologic Sub-Area (HSA 719.47), according to the WQPT. This hydrologic area covers over 540,000 acres in Riverside County. Receiving water bodies within the project boundaries include CVSC, which eventually discharges to Salton Sea about 25 miles downstream.

The drainage course of stormwater from the project to the Salton Sea was used to identify the Total Maximum Daily Load (TMDL) constituents associated with implementation of the proposed improvements. Stormwater within the project boundary will be collected in a series of drainage systems maintained by the Department and the City of Indio, where it ultimately discharges to the CVSC, which runs parallel, about 380 feet south of the I-10/Jackson Interchange, at PM R55.7. The CVSC continues to flow southeasterly for about 20 miles before ultimately discharging into the Salton Sea. According to the Final 2014-2016 Integrated Report (CWA Section 303(d) List/305(b) Report), the CVSC is listed as an impaired waterbody with a TMDL established for Indicator Bacteria. The portion of I-10 associated with this project is tributary to the CVSC, which is included in the Department TMDL Reach Prioritization Ranking Table and in turn incorporated in the Department Statewide NPDES Permit.

The project site is within the Coachella Valley Groundwater Basin; basin number 7-021 according to the California Geological Survey Groundwater Basin Boundary Tool. This region is under the jurisdiction of the California RWQCB, Colorado River Basin Region (Region 7).

The Colorado River is the main water supply to the region and elsewhere in California. Drainage to the Colorado River comes from the East Colorado River Basin, which is a 200-mile long strip that ranges from 7 to 40 miles wide. The project area is located within the Coachella Valley Planning Area, which is located primarily in Riverside County.

This project would be constructed within existing and future Department's right-of-way; therefore, the California Statewide Permit currently in effect would apply to this project. This project would require notification to the State Water Quality Control Board via the Stormwater MultiApplication Tracking System (SMARTS). Project registration documents would be filed and a Waste Discharge Identification (WDID) Number would then be assigned.

A Section 401 Water Quality Certification is required from the Colorado River RWQCB because this project will result in discharges to the CVSC. Additionally, a Section 404 permit from the United States Army Corps of Engineers, and California Department of Fish and Game 1602 Streambed Alteration Agreement is also required for this project, which would be obtained prior to construction.

### *Surface Streams*

The project crosses the CVSC. This channel is tributary to the Salton Sea. No other stream crossings exist within the project limits for both Build Alternatives. Stormwater within the project boundary will be collected in a series of drainage systems maintained by the Department and the City of Indio, where it ultimately discharges to the CVSC, about 380 feet south of the I-10/Jackson Interchange. The CVSC continues to flow southeasterly for about 20 miles before ultimately discharging into the Salton Sea.

The project is proposing several Design Pollution Prevention BMPs, which would provide treatment to over 100 percent of the overall water quality value (WQV) to be treated. The Department-approved BMPs for the proposed bridge would be in compliance with respective jurisdictions, the City of Indio National Pollutant Discharge System (NPDES) Municipal Separate Storm Sewer System Permit (MS4 Permit). The final design of the BMPs and storm drain system would be performed in the design stage of the project.

### *Groundwater Hydrology*

The project site is within the Coachella Valley Groundwater Basin; basin number 7-021 according. On a basin-wide scale, the general movement of both surface water and ground water is southward and eastward from the surrounding hills and mountains. On a local scale, however, the movement of ground water is more complex. Faults in the area divide the ground-water basin into several sub basins, which previous investigators have characterized as being relatively isolated from one another. Flow in and between sub basins is complex and is not well understood except as can be inferred from contour maps of ground-water levels.

#### *Sources of Groundwater Recharge*

CVWD and Desert Water Agency (DWA) work together on groundwater replenishments efforts. Groundwater recharge is partially funded by Replenishment Assessment Recharge (RAC) and includes three replenishment facilities within East Whitewater River sub-basin, West Whitewater River sub-basin, and Mission Creek sub-basin. The agencies also import water from the Sacramento Bay Delta and Colorado River, as well as entitlements to captured snow melt from the San Gorgonio Mountains. Colorado River water artificially replenishes the aquifer at four different sites within Coachella Valley, including Thomas E. Levy Groundwater Replenishment Facility, Whitewater Recharge Facility, Martinez Canyon Pilot Recharge Facility, and Groundwater Recharge Facility in Indio.

#### *Municipal Water Supply*

The beneficial uses for the CVSC does not include Municipal and Domestic Supply (MUN) that is described as uses of water for community, military, or individual water supply systems including, but not limited to, drinking water supply according to Caltrans Water Quality Planning Tool. Also drinking water reservoirs and/or recharge facilities do not exist within the project limits.

Indio Water Authority is owned by the City of Indio and Redevelopment Agency, and delivers water to Indio residents for municipal water programs and services (Indio 2019).

### 2.2.2.3 Environmental Consequences

#### *Temporary*

*No-Build Alternative*

Under the No-Build Alternative, none of the proposed project improvements would be implemented; therefore, no construction-related impacts to water quality would occur.

*Build Alternatives 2 and 4*

The project footprint for both Build Alternatives 2 and 4 are similar; therefore, the discussion of Alternatives 2 and 4 below is combined into a single discussion of Build Alternatives.

The pollutants associated with construction activities include sediment and silt generated with soil disturbance, and chemical pollutants associated with the construction materials that are brought onto the project site. Disturbed soils are susceptible to high rates of erosion from wind and rain, resulting in sediment transport via stormwater runoff from the project area. Chemical contaminants, such as oils, fuels, paints, solvents, nutrients, trace metals, and hydrocarbons, can attach to sediment and be transported to downstream drainages and ultimately into collecting waterways, contributing to the chemical degradation of water quality.

Construction materials, waste handling, and the use of construction equipment could also result in stormwater contamination and affect water quality. Spills or leaks from heavy equipment and machinery can result in oil and grease contamination. Operation of vehicles during construction could also result in tracking of dust and debris. Staging areas can also be sources of pollutants because of the use of paints, solvents, cleaning agents, and metals during construction. Pesticide use, including herbicides, fungicides, and rodenticides, associated with site preparation is another potential source of stormwater contamination. These pollutants would occur in the stormwater discharges and non-stormwater discharges and could potentially cause chemical degradation and aquatic toxicity in the receiving waters.

Erosion and sedimentation could affect the biological characteristics of the aquatic environment through interference with photosynthesis; oxygen exchange; and the respiration, growth, and reproduction of aquatic species. Other anticipated temporary impacts to the biological characteristics of the aquatic environment include equipment access below the OHWM of the CVSC during construction of the proposed bridge.

During the construction phase, soil disturbance activities include earth-moving activities such as excavation and trenching, soil compaction, cut and fill activities, and grading. The temporary disturbed surface area (DSA) is approximately 26.93 acres within the Department's right-of-way and 31.77 acres total (within and outside of the Department's right-of-way). Implementation of the SWPPP is expected to attenuate and minimize the amount of sediments released from the construction site (refer to measures **WQ-1** and **WQ-2** in Section 2.2.2.4, below). Short-term impacts caused by each of the Build Alternatives include potential increases in sediment loads because of removal of existing groundcover and disturbance of soil during grading. The temporary residual increase in sediment loads from construction areas is unlikely to alter the hydrologic response (i.e., erosion and deposition) downstream in the hydrologic subarea and, subsequently, the sediment processes in these areas would be reduced because all DSAs would be stabilized before completion of construction with permanent landscaping and/or permanent erosion control measures.

The Department-approved Treatment BMPs and temporary Construction Site BMPs are considered project design features. Therefore, with incorporation of Temporary and Permanent BMPs, no adverse impacts are expected with implementation of the project.

Dewatering is not anticipated during construction since a deeper groundwater level is expected based on historical data and preliminary investigations. If construction of the project requires the discharge of groundwater to the environment or dredged or fill material, implementation of measure **WQ-3**, described in Section 2.2.2.4, below, would minimize water quality and hydrological impacts associated with construction.

Jurisdictional waters include approximately 12.36 acres of non-wetland waters of the U.S. (under the jurisdiction of USACE) and RWQCB waters of the State as well as approximately 29.57 acres CDFW jurisdictional waters occur within the BSA. The waters are limited to the Whitewater River which is located in the southern portion of the BSA and is confined to the CVSWC. Wetlands were absent from the BSA.

Under Build Alternative 2, temporary impacts will occur in areas that span the width of the CVSWC, are under and adjacent to the proposed bridge. Build Alternative 2 would account for approximately 0.99 acre of temporary impacts to non-wetland waters of the U.S. and RWQCB waters of the State; and 6.41 acres of temporary impacts to CDFW jurisdictional waters.

Under Build Alternative 4, temporary impacts will occur in areas that span the width of the CVSWC, are under and adjacent to the proposed bridge. Build Alternative 4 would account for approximately 0.95 acre of temporary impacts to non-wetland waters of the U.S. and RWQCB waters of the State; and 6.32 acres of temporary impacts to CDFW jurisdictional waters.

Permitting will be required through the USACE, RWQCB and CDFW under sections 401 and 404 of the Clean Water Act and Section 1600 of the Fish and Game Code. Permits will be issued prior to any work with jurisdictional waters. Measures outlined in the permits will be followed and may include designating environmentally sensitive areas (ESA) and installation of ESA fencing, timing of work efforts and additional measures to minimize impacts within the Whitewater River. Project activities within the Whitewater River should be timed to begin immediately after maintenance activities conducted by the CVWD, if possible, to further reduce temporary impacts to the Whitewater River (see **BIO-1** in Section 2.3.3, Plant Species).

With the implementation of measure **BIO-1** and measures **WQ-4** through **WQ-6** in Section 2.2.2.4 below, and regulatory permit conditions, no direct or indirect temporary adverse impacts on drainages would result during the construction of the Build Alternatives.

### *Permanent*

#### *No-Build Alternative*

Under this alternative, no reconstruction or improvements would be made to the existing I-10/Jackson Street interchange other than routine maintenance. There are currently no known Treatment BMPs located within the project limits and no additional impacts are anticipated.

#### *Build Alternatives 2 and 4*

The project footprint for both Alternatives 2 and 4 are similar; therefore, the discussion of Alternatives 2 and 4 below is combined into a single discussion of Build Alternatives, except where otherwise noted. The project has the potential to affect water quality during the operation phase.

Operation of the project would result in an increase in impervious surface areas, which would result in an increase in stormwater runoff. Potential pollutants associated with the operation of transportation facilities include sediment from natural erosion; nutrients, such as phosphorus and nitrogen, associated with freeway landscaping; mineralized organic matter in soils; nitrite discharges from automobile exhausts and

atmospheric fallout; litter; and metals from the combustion of fossil fuels, the wearing of brake pads, and corrosion of galvanized structures. Build Alternative 4 which has the largest footprint of the build alternatives would add 7.88 acres of new impervious surface area.

No long-term impacts to the human use characteristics of the aquatic environment are anticipated.

Under the Build Alternatives 2 and 4, the goal of the proposed treatment BMP strategy is to treat more than 100 percent of the water quality volume from the new net impervious and pervious areas to fulfill the requirements of the Department's NPDES permit. The project proposes to treat approximately 3.11 more acres of impervious areas, thereby improving water quality over what is "required" by the NPDES permit.

The project proposes Design Pollution Prevention Infiltration Areas (DPPIAs) as treatment BMPs. Treatment provided will be based on infiltrated volumes. Nine DPPIAs are proposed within the project limits as treatment BMPs. Each DDPIA will not infiltrate 100 percent of its respective tributary WQV, however, the cumulative volume treated by all DDPIAs will exceed 100 percent of required WQV.

No long-term impacts are anticipated downstream as a result of the proposed bridge over the Coachella Valley Stormwater Channel (Whitewater River). The project will reduce the number and size of the bents in the channel, thereby improving the hydraulics of the channel. The existing bridge contains four single-column bents with 8-foot by 5-foot oblong concrete columns in the channel whereas the proposed bridge contains only two single-column bents with 7-foot circular concrete columns. The channel is an engineered leveed channel with drop structures, is assumed to be in equilibrium, and will not undergo long-term scour due to the proposed bridge structure.

Permanent impacts will be caused by the placement of support columns within the CVSWC. Impacts as a result of Build Alternative 2 would account for approximately 0.35 acre of permanent impacts to non-wetland waters of the U.S. and waters of the State (under the jurisdiction of USACE and RWQCB, respectively), and 0.78 acre of permanent impacts to CDFW jurisdictional waters.

For Build Alternative 4, permanent impacts will be caused by the placement of support columns within the CVSWC. Permanent impacts would occur for approximately 0.43 acre of non-wetland waters of the U.S. (under the jurisdiction of USACE) and RWQCB waters of the State; and 0.91 acre of permanent impacts to CDFW jurisdictional waters.

The Build Alternatives would add 7.88 acres of new impervious surface area. During the operational phase, runoff from the project corridor would be conveyed to Department-approved Treatment BMPs such as Design Pollution Prevention Infiltration Areas (DPPIAs) that would provide treatment to the maximum extent practicable, and would not likely create any surface water quality impacts.

Off-site flow northwest of the interchange is collected and conveyed within an existing 72-inch CMP pipe located 600 feet west of the Jackson Street overcrossing that discharges to CVSC. The proposed roadway improvements to Jackson Street and the I-10 on-ramps and off-ramps will not alter the existing off-site drainage pattern. The increase of stormwater runoff within the project limits due to the increased impervious area of the proposed improvements is small in comparison to the large off-site flows. The proposed BMPs also will attenuate small storm frequency events. In addition, increase in off-site flows is minimal due to the time of concentration comparison between on-site and off-site. As such, existing off-site drainage systems will be protected in place to the maximum extent possible. Where proposed improvements impact the existing off-site drainage systems, these systems will be extended or realigned to accommodate the proposed roadway improvements. Since the increase of runoff to the existing off-site drainage systems is minimal in comparison to the total tributary flow to the system due to time of concentration comparison, off-site design flows will remain in existing condition, and will be obtained

from available as-built drawings of the existing off-site systems. As such, it is anticipated that the proposed improvements will have a negligible impact on the flow capacity of the off-site systems.

Drainage inlets will also be proposed in areas with roadway low points and super-elevation reversals. Since all proposed side slopes are relatively flat, 4:1 (horizontal:vertical) or flatter, runoff will be allowed to sheet flow down embankment slopes to the maximum extent practicable to provide water quality treatment. Existing culverts will be extended or relocated where required to accommodate the proposed roadway improvements. Build Alternative 2 will require fewer on-site proposed drainage improvements than Build Alternative 4 due to the smaller footprint. Less linear feet of existing culvert will need to be removed and fewer inlets and proposed storm drain pipe will need to be proposed for Build Alternative 2 as the result of the reduced impact to the existing ramps.

Erosion control measures also would be used to address site soil stabilization and reduce deposition of sediments in adjacent surface waters. Typical measures would include the application of soil stabilizers such as soil binders, rock slope protection, velocity dissipation devices, and flared end sections for culverts.

It is not anticipated that either of the build alternatives would cause a change to sedimentation in receiving water bodies within the project area because the project would result in a very minor increase in runoff compared to the entire hydrologic area.

The Department-approved Treatment BMPs and temporary Construction Site BMPs are considered project design features. Therefore, with incorporation of Temporary and Permanent BMPs, no adverse impacts are expected with operation of the project.

#### 2.2.2.4 Avoidance, Minimization, and/or Mitigation Measures

The following measures would be implemented to minimize potential water quality and hydrological impacts associated with construction and operation:

**WQ-1:** The I-10/Jackson Street Interchange Improvement Project would be required to conform to the requirements of the Caltrans Statewide National Pollutant Discharge Elimination System Stormwater Permit, Order No. 2012-0011-DWQ, NPDES No. CAS000003, adopted by the State Water Resources Control Board on July 1, 2013, and any subsequent permit in effect at the time of construction. In addition, the I-10/Jackson Street Interchange Improvement Project would be required to comply with the requirements of Order No. 5-01-130, and the NPDES Permit for Construction Activities, Order No. 2012-006-DWQ, NPES No. CAS000002, as well as implementation of the BMPs specified in Department's Stormwater Management Plan.

**WQ-2:** The contractor would be required to develop a SWPPP. The SWPPP shall contain BMPs that have demonstrated effectiveness at reducing stormwater pollution. The SWPPP shall address all construction-related activities, equipment, and materials that have the potential to affect water quality. All Construction Site Best Management Practice would follow the latest edition of the Stormwater Quality Handbooks, Construction Site BMPs Manual to control and minimize the impacts of construction-related pollutants. The SWPPP shall include BMPs to control pollutants, sediment from erosion, stormwater runoff, and other construction-related impacts. In addition, the SWPPP shall include implementation of specific stormwater effluent monitoring requirements based on the project's risk level to ensure that the implemented BMPs are effective in preventing the exceedance of any water quality standards.

If construction of the I-10/Jackson Street Interchange Improvement Project requires the discharge of groundwater to the environment or dredged or fill material, the project would require the following measures to minimize water quality and hydrological impacts associated with construction.

**WQ-3:** If dewatering is determined to be required during PS&E for the preferred alternative, the contractor shall fully conform to the requirements specified in Order No. R5-00-175, General Waste Discharge requirements for Discharges to Surface Water which Pose an Insignificant (De Minimus) Threat to Water Quality, from the Colorado River RWQCB.

**WQ-4:** A section 404 Permit is will be acquired for the discharge of dredged or fill material into water of the U.S., because the project involves work over the CVSC.

**WQ-5:** A Section 401 Certification from the State is most frequently required in tandem with a Section 404 Permit; therefore, a 401 Certification from the State would be required to ensure that the discharge will comply with applicable Federal and State effluent limitations and water quality standards.

**WQ-6:** Per Section 1602 of the Fish and Game Code, the I-10/Jackson Street Interchange Improvement Project would be required to notify the Department of Fish and Game of any proposed activity that would substantially divert or obstruct the natural flow of any river, stream, or lake; substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

## 2.2.3 Geology/Soils/Seismicity/Topography

### 2.2.3.1 Regulatory Setting

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects "outstanding examples of major geological features." Topographic and geologic features are also protected under the California Environmental Quality Act (CEQA).

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. Structures are designed using the Department's Seismic Design Criteria (SDC). The SDC provides the minimum seismic requirements for highway bridges designed in California. A bridge's category and classification will determine its seismic performance level and which methods are used for estimating the seismic demands and structural capabilities. For more information, please see the Department's Division of Engineering Services, Office of Earthquake Engineering, Seismic Design Criteria.

### 2.2.3.2 Affected Environment

The primary source used in the preparation of this section is the *Combined Paleontological Identification Report and Paleontological Evaluation Report (PIR/PER) for the Interstate 10/Jackson Street Interchange Improvement Project* (Cogstone, November 2018), the *Initial Site Assessment for I-10/Jackson Street Interchange Project* (ESA, September 2020), the *District Preliminary Geotechnical Report, Interstate 10/Jackson Street Interchange Improvement Project* (Earth Mechanics, Inc., April 2019), and the *Location Hydraulic Study* completed in February 2019 for this project (Pace, 2019).

#### *Regional Geology*

The project area is in the Coachella Valley at the northern end of the Salton Trough. Surrounded by mountains on all but the southeastern side, the Salton Trough is an extensional basin that parallels the San Andreas Fault Zone through the Coachella Valley from the Desert Hot Springs area to the Pacific Ocean south of the Gulf of California. The San Andreas Fault Zone lies near the center of the trough while the Pacific Plate is along the west side and the North American Plate is along the east. The northwesterly motion of the Pacific Plate relative to the North American Plate has formed this extensional basin and continues to cause the Salton Trough to widen and sink from the stretching of the continental crust. The San Andreas Fault Zone continues south through the Gulf of California, which is also widening and sinking.

#### *Local Geology*

The project is mapped as late Holocene eolian sands and Whitewater River sediments deposited less than 3,000 years ago. The project is also mapped within the northern boundary of the middle to late Holocene Lake Cahuilla beds and valley alluvial sands less than 6,000 years old with deposits of the Whitewater River in a modern, man-made channel.

#### *Subsurface Soil Conditions*

The majority of the project area is hardscape and was modified by the existing I-10/Jackson Street interchange. Only two areas of unmodified sedimentary deposits remained within the project area; on the north side of I-10 on either side of Jackson Avenue.

The soil of the study area is comprised of Fluvents, Indio fine sandy loam, and Indio very fine sandy loam. These soil types are generally pervious to surface water and are not suitable for subsurface liquid retention.

The subsurface soils at the site are expected to consist of engineered fill underlain by alluvial soils. The engineered fill is expected to consist of fine to coarse silty sand and the alluvial soil is expected to consist of interbedded micaceous very fine to fine sand and laminated clayey silt.

### *Faulting*

The site is not located within a recognized State of California or Riverside County Earthquake Fault Zone. The site location relative to regional faults is shown on Figure 2-9, Geologic Fault Zone Map.

### *Seismicity*

The project lies near the Coachella Segment of the San Andreas fault zone. The Coachella Segment is approximately 1.4 miles northeast of the project. The 1,100-km-long San Andreas fault zone is the principal element of the San Andreas fault system, which is a network of faults with predominantly dextral strike-slip displacement that collectively accommodates the majority of relative north-south motion between the North American and Pacific plates.

The site is in a seismically active area, and strong shaking could be expected in the life of the facility; however, there are no known active faults capable of fault rupture that pass through the site.

Although the Coachella Segment of the San Andreas fault zone is considered an Alquist-Priolo Special Studies Zone, it is over a mile from the project location. The site is not within 1,000 feet of any fault in the Department's Fault Database. Since the project site is not located within the confines of the fault zone, the risk of surface rupture at the site is considered low.

The City of Indio Geologic Hazards Map identifies the project area as being located in an area designated as a 5 for Seismic Shaking Intensities on a 1-10 scale for seismic shaking, where 1 is low and 10 is high (https://www.indio.org/civicax/filebank/blobdload.aspx?BlobID=23712).

### *Seismic Settlement*

Seismic settlement may occur in areas where there are relatively loose, dry, granular soils, or where liquefaction occurs. The potential seismic settlement will be evaluated during the PS&E using site-specific soil borings.

### *Liquefaction*

Soil liquefaction is the process by which the shear strength of granular-saturated soils is reduced because of an increase in pore pressure during seismic shaking. Requisite conditions for liquefaction to occur include saturated granular soils and non-plastic silt that are not free-draining, with a loose-packed grain structure capable of progressive rearrangement of grains during repeated cycles of seismic loading. When liquefaction occurs, the particles rearrange to a denser state, but excess pore pressure is not dissipated; therefore, the shear strength of the soil decreases, thus reducing the soil's ability to support foundations for buildings and bridges. The stability of slopes may also be reduced as discussed under lateral spreading.

The State of California Seismic Hazard Zone Maps delineate areas as being susceptible to liquefaction if past occurrence of liquefaction was reported or local geological, geotechnical, and groundwater conditions suggest a potential for liquefaction exists. Review of the Seismic Hazard Zones Maps for the Indio 7.5-Minute quadrangle indicates that the project does not fall in an area that is flagged as being susceptible to liquefaction. However, the more specific City of Indio Geologic Hazards Map identifies the project location to lie in an area susceptible to liquefaction as groundwater is generally shallower than 30 feet (https://www.indio.org/civicax/filebank/blobdload.aspx?BlobID=23712).

### Fault Rupture

Fault rupture refers to the extension of a fault to the ground surface by which the ground breaks, resulting in an abrupt relative ground displacement—for example, vertical or horizontal offset. Surface fault ruptures are the result of stresses relieved during an earthquake event, and often cause damage to structures astride the rupture zone.

The project does not lie within a current Alquist-Priolo Earthquake Fault Zone or cross any mapped fault exhibiting offset of geologically recent deposits. The risk of surface fault rupture is therefore low. However, the potential for surface rupture resulting from the movement of nearby major faults is not known with certainty but is considered low.

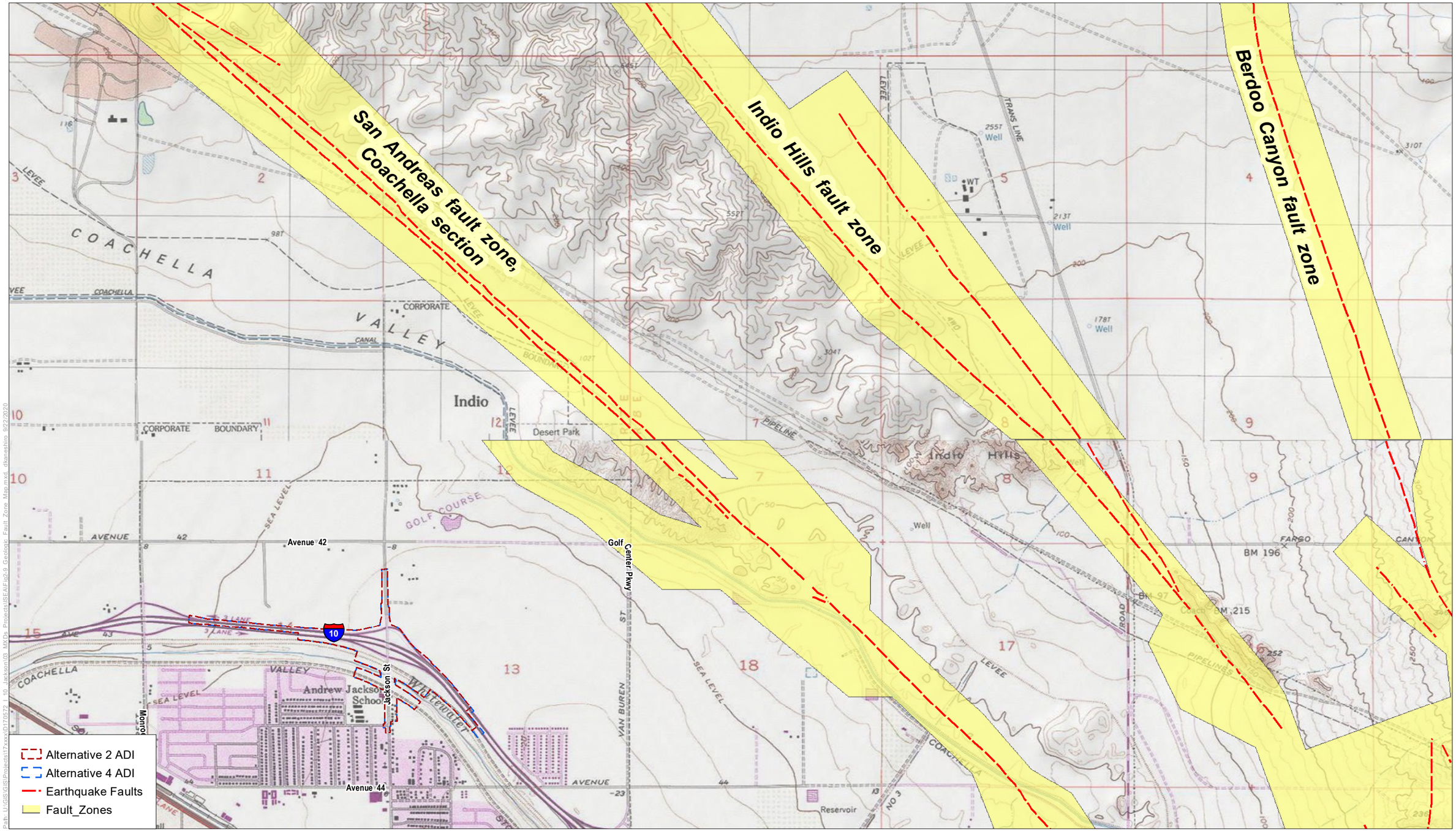
The proposed site is situated in a seismically active region, as is the case for most areas of Southern California, ground shaking resulting from earthquakes associated with nearby and more distant faults may occur at the project site. During the life of the project, seismic activity associated with active faults can be expected to generate moderate to strong ground shaking at the site. Construction and operation of the project is not expected to generate shaking at any potential to produce fault rupture.

### Seiches and Tsunamis

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. Tsunamis are waves generated in large bodies of water by fault displacement or major ground movement. Tsunamis have no potential to occur in the project area given its inland location. Seiching is possible within the Whitewater River Channel if a large earthquake coincides with a high flow level event, although this is unlikely given how low the water level is in the channel in general.

### Landslides

Seismically induced landslides occur when shaking from an earthquake causes pre-existing landslides to reactivate or triggers new landslides along planes of weakness in bedrock material. According to the Seismic Hazard Zones Map for the Indio 7.5-minute quadrangle, the project is not located in a zone of seismically induced landslides.




SOURCE: USGS 7.5' Topo Quads Myoma, West Berdoo Canyon, La Quinta, Indio;
Seismic Hazards Program, California Geological Survey, California Department of Conservation; City of Indio

I-10 / Jackson Street Interchange Project

**Figure 2-9**
Geologic/Fault Zone Map

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### 2.2.3.3 Environmental Consequences

#### *Temporary*

*No-Build Alternative*

Under the No-Build Alternative, there would be no change to the existing interchange facilities, posing no changes to the existing environment, and requiring no disturbance of soils; therefore, there would be no impacts on geologic resources.

*Build Alternatives 2 and 4*

The project footprint for both Build Alternatives 2 and 4 are similar; therefore, the discussion of Alternatives 2 and 4 below is combined into a single discussion of Build Alternatives, since implementation of either Build Alternative would result in similar impacts.

During construction of the Build Alternatives, excavated soil would be exposed, increasing the potential for soil erosion and unprotected soils, including slopes, would be subject to erosion during storms. Additionally, embankment slopes within the Whitewater Channel and the existing interchange as well as areas disrupted by grading are susceptible to erosion from surface runoff. Cut and fill slopes are frequently constructed in roadway projects.

Construction activities of the project could result in ground-shaking activities, but not at a level that could potentially cause fault rupture, landslides, liquefaction, or cause an earthquake. Compliance with the most current Department procedures regarding seismic design, which is standard practice on all Department projects, is anticipated to prevent any adverse effects related to seismic ground shaking. Conformance with the California Building Code (CBC) as well as adherence to standard engineering practices and the Department's design criteria, would reduce the effects of seismic ground shaking. Therefore, the project would not result in or contribute to seismic related hazards to the degree that would result in a significant impact to construction workers or the traveling public.

#### *Permanent*

*No-Build Alternative*

Under the No-Build Alternative, there would be no change to the existing interchange facilities, posing no changes to the existing environment, and requiring no disturbance of soils; therefore, there would be no impacts on geologic resources.

*Build Alternatives 2 and 4*

*Fault-Induced Ground Rupture*

The project does not lie within a current Alquist-Priolo Earthquake Fault Zone or cross any mapped fault exhibiting offset of geologically recent deposits. The risk of surface fault rupture is therefore low. However, the potential for surface rupture resulting from the movement of nearby major faults is not known with certainty but is considered low.

The proposed site is situated in a seismically active region. As is the case for most areas of Southern California, ground shaking resulting from earthquakes associated with nearby and more distant faults may occur at the project site. Construction and operation of the project is not expected to generate shaking at any potential to produce fault rupture.

### *Seismicity*

Although the project site is in seismically active Southern California, it is within an existing transportation corridor. The project and all associated structures would be designed to meet the Department's design standards to minimize geologic and seismic hazards. A revised interchange at I-10/Jackson Street would not increase the risk of exposing people or structures to potential adverse effects because of seismic activities or seismic-related ground failure beyond the existing level already present.

### *Liquefaction and Seismically Induced Settlement*

The City of Indio Geologic Hazards Map identifies the project location to lie in an area susceptible to liquefaction as groundwater is generally shallower than 30 feet. No proposed project activities would increase the potential for liquefaction in the project area past what it currently experiences. The project would follow the Department's latest design requirements to minimize any potential effects related to liquefaction and seismically induced settlement. With implementation of these standard measures, no direct or indirect, adverse, long-term impacts would occur as a result of the project.

### *Tsunami/Seiches*

Tsunamis have no potential to occur in the project area given its inland location. Seiching is possible within the Whitewater River Channel if a large earthquake coincides with a high flow level event.

### *Landslides*

No impacts are anticipated for seismically induced landslides, given the relatively stable and flat topography of the project area.

#### 2.2.3.4 Avoidance, Minimization, and/or Mitigation Measures

All project components would be designed in accordance with standard engineering practices and Department standard specifications. Because no substantial adverse effects under NEPA or significant impacts under CEQA would occur related to geology, soils, topography and seismicity, no avoidance, minimization, and/or mitigation measures are required.

## 2.2.4 Paleontology

### 2.2.4.1 Regulatory Setting

Paleontology is a natural science focused on the study of ancient animal and plant life as it is preserved in the geologic record as fossils. A number of federal statutes specifically address paleontological resources, their treatment, and funding for mitigation as a part of federally authorized projects.

- 23 United States Code (USC) 1.9(a) requires that the use of Federal-aid funds must be in conformity with all federal and state laws.
- 23 USC 305 authorizes the appropriation and use of federal highway funds for paleontological salvage as necessary by the highway department of any state, in compliance with 16 USC 431-433 above and state law.

Under California law, paleontological resources are protected by California Environmental Quality Act (CEQA).

### 2.2.4.2 Affected Environment

The primary sources used in the preparation of this section is the Co*mbined Paleontological Identification Report and Paleontological Evaluation Report (PIR/PER) for the Interstate 10/Jackson Street Interchange Improvement Project* (Cogstone, November 2018).

The project is mapped on the Indio 7.5' United States Geological Survey (USGS) topographic map, in sections 13 and 14 of Township 5 South, Range 7 East of the San Bernardino Base and Meridian. A record search of the project was obtained from the Western Science Center in June 2018. Additional records from the University of California Museum of Paleontology database (UCMPDB), the PaleoBiology Database, print sources, and previous record searches from the Natural History Museum of Los Angeles County, the San Diego Natural History Museum, and the San Bernardino County Museum were also reviewed for fossil records near to the project.

A field reconnaissance survey was conducted of the project area on June 18, 2018. The majority of the project area is hardscape and is modified by the I-10/Jackson Street interchange. All undeveloped ground surface areas that may be impacted within the project area are examined. Portions of the project where potentially fossiliferous sediments were present at the surface or where existing ground disturbances (e.g., cutbanks, ditches, animal burrows) incised into potentially fossiliferous sediments were intensely surveyed. Areas of hardscaping and landscaping are typically excluded. Only two areas of unmodified sedimentary deposits remained within the project area; on the north side of I-10 on either side of Jackson Avenue.

The project area is in the Coachella Valley at the northern end of the Salton Trough. Surrounded by mountains on all but the southeastern side, the Salton Trough is an extensional basin that parallels the San Andreas Fault Zone through the Coachella Valley from the Desert Hot Springs area to the Pacific Ocean south of the Gulf of California.

The project is mapped as late Holocene eolian sands and Whitewater River sediments deposited less than 3,000 years ago. The project is also mapped within the northern boundary of the middle to late Holocene Lake Cahuilla beds and valley alluvial sands less than 6,000 years old with deposits of the Whitewater River in a modern, man-made channel. The descriptions of these are found below:

- *Lake Cahuilla Deposits, Middle to Late Holocene*. Sediments of the Lake Cahuilla beds are generally composed of thin (1-2 cm thick), poorly sorted, fine-grained, light grayish-brown fluvial sands

interbedded with massive, poorly sorted, bioturbated, silty to sandy, white-to-light-gray lacustrine beds. In the La Quinta area, charcoal from fluvial deposits interfingering with the Lake Cahuilla beds has been dated to 5,890 + 60 years before present.

- *Valley Alluvium/Playa Deposits, Late Holocene.* Alluvial valley sediments in the area were laid down when Lake Cahuilla was dry or very shallow. These interfinger with the light grey, alkaline clays and micaceous silt of the Lake Cahuilla beds. Aside for the man-made channel deposits of the Whitewater River, the entire study area contains alluvial valley and playa deposits.
- *Eolian Deposits, Late Holocene.* These unconsolidated, well sorted, wind-blown sands occur as dunes and sheet sands. The dunes were produced in areas not covered by Lake Cahuilla. Since the lake coverage over the study area was periodic, the dunes interfinger with lake and Whitewater River sediments.
- *Whitewater River Deposits, Late Holocene.* Unconsolidated, fluvial sands and gravels occur in the recently active channels of the Whitewater River. Older fluvial deposits interfinger with lake and dune sediments, while modern sediments are deposited in the man-made Whitewater River Channel.

### *Results of Records Search and Pedestrian Survey*

Only two areas of unmodified sedimentary deposits remained within the project area; on the north side of I-10 on either side of Jackson Avenue. Sediments of the late Holocene eolian deposits observed corroborated the sediment descriptions of Lancaster et al. (2012). The micaceous silts of the rest of the native deposits confirmed the local extent of the Lake Cahuilla beds as mapped by Dibblee and Minch. Small shells of the freshwater desert spring snail (*Tryonia*) and spring snail (*Pyrglopsis*) were present in all native and fill sediments owing to the ease of transport.

McLeod (2013, 2015) and Whistler et al. (1995) report fossil localities from the Lake Cahuilla beds in La Quinta, about 5 miles southwest of the I-10 at Jackson Avenue interchange. Freshwater mollusk shells were abundant on the surface and throughout almost every stratigraphic interval. Most vertebrate fossils were recovered from fluvial, rather than lacustrine, strata. Overall, diverse freshwater diatoms, land plant pollen, sponges, ostracods, mollusks, fish, and small terrestrial vertebrates were recovered from this paleontological sampling program. Additionally, fossils were reported within 2 miles of the project; however, these were from a much older Palm Springs Formation, which will not be impacted by project activities.

### *Paleontological Sensitivity*

The Department utilizes a tripartite scale to characterize paleontological sensitivity consisting of no potential, low potential and high potential (see Table 2-30 below). Occurrences of fossil resources are closely tied to the geologic units (e.g., formations or members) that contain them. The probability for finding significant fossils in a project area can be broadly predicted from previous records of fossils recovered from the geologic units present in and/or adjacent to the study area.

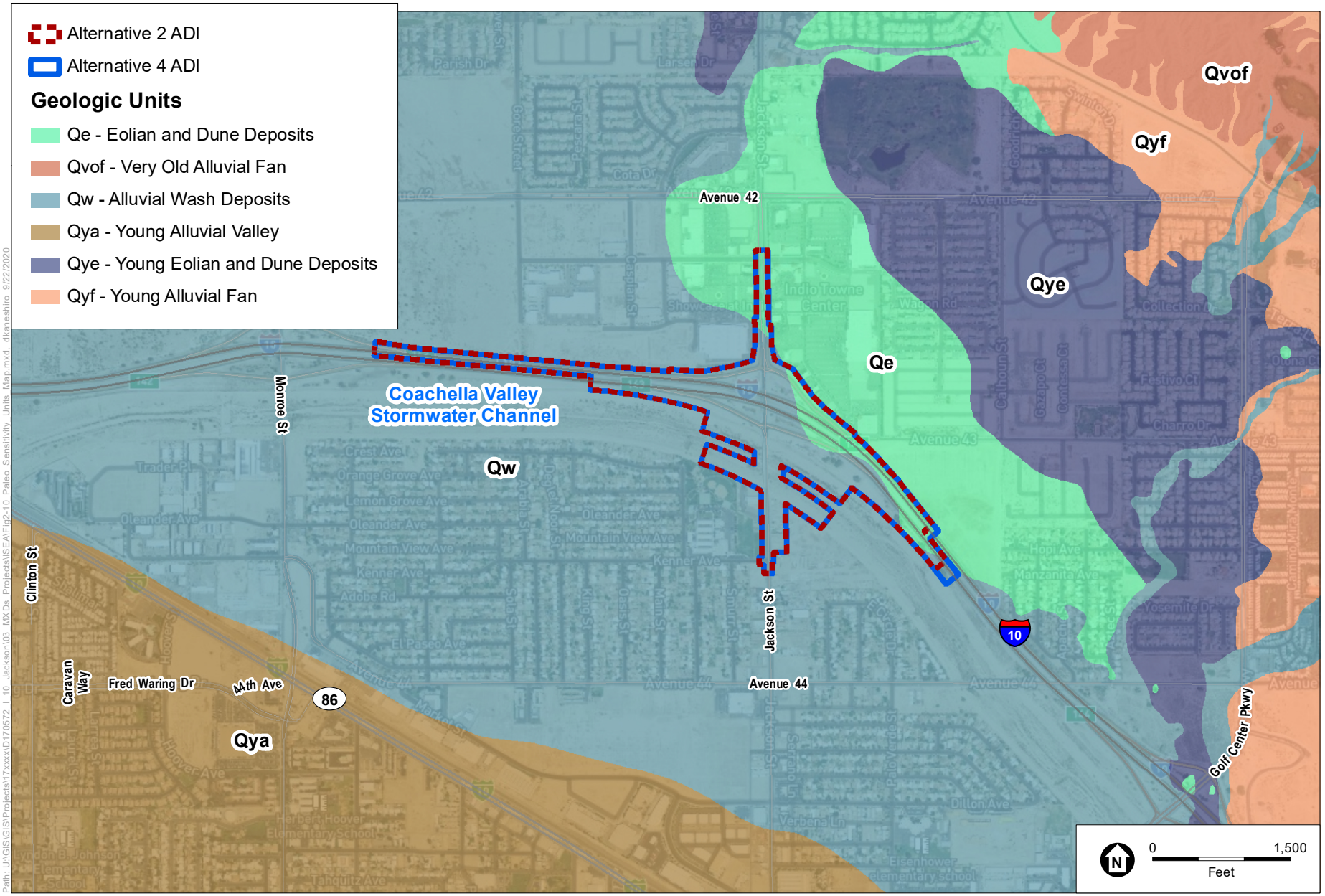
If a paleontological resource is determined to be significant, of high sensitivity, or of scientific importance, and the project impacts it, a mitigation program must be developed and implemented. Mitigation can be initiated prior to, and/or during, construction.

**Table 2-30 Paleontological Sensitivity Tripartite Scale**

| Caltrans Rank | Caltrans Description |
|---|---|
| **No Potential** | Rock units of intrusive igneous origin, most extrusive igneous rocks, and moderately to highly metamorphosed rocks are classified as having no potential for containing significant paleontological resources. |
| **Low Potential** | This category includes sedimentary rock units that: (1) are potentially fossiliferous, but have not yielded significant fossils in the past; (2) have not yet yielded fossils, but possess a potential for containing fossil remains; or (3) contain common and/or widespread invertebrate fossils if the taxonomy, phylogeny, and ecology of the species contained in the rock are well understood. Sedimentary rocks expected to contain vertebrate fossils are not placed in this category because vertebrates are generally rare and found in more localized stratum.<br>Rock units designated as low potential generally do not require monitoring and mitigation. However, as excavation for construction gets underway it is possible that new and unanticipated paleontological resources might be encountered. If this occurs, a Construction Change Order (CCO) must be prepared in order to have a qualified Principal Paleontologist evaluate the resource. If the resource is determined to be significant, monitoring and mitigation is required. |
| **High Potential** | Rock units which, based on previous studies, contain or are likely to contain significant vertebrate, significant invertebrate, or significant plant fossils. These units include, but are not limited to, sedimentary formations that contain significant nonrenewable paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils. These units may also include some volcanic and low-grade metamorphic rock units. Fossiliferous deposits with very limited geographic extent or an uncommon origin (e.g., tar pits and caves) are given special consideration and ranked as highly sensitive.<br>High sensitivity includes the potential for containing: (1) abundant vertebrate fossils; (2) a few significant fossils (large or small vertebrate, invertebrate, or plant fossils) that may provide new and significant taxonomic, phylogenetic, ecologic, and/or stratigraphic data; (3) areas that may contain datable organic remains older than Recent, including Neotoma (sp.) middens; or (4) areas that may contain unique new vertebrate deposits, traces, and/or trackways. Areas with a high potential for containing significant paleontological resources require monitoring and mitigation. |
| Source: Caltrans 2014 County Sensitivity | |

Typically geological units less than 11,700 years old are given a low sensitivity as they are too young to contain the remains of extinct Pleistocene animals. Although vertebrate fossils are known from the Lake Cahuilla beds, the closest vertebrate localities to the project area are 5 miles to the southwest in La Quinta. Approximately 7,050 pounds of sediment were washed to recover the fossils found in 1995. Radiometric dating from La Quinta produced dates too young to contain the remains of extinct Pleistocene animals. The snails and clams of the Lake Cahuilla beds are extremely common and are found throughout area that this lake previously covered. Because of these factors, the Lake Cahuilla beds are assigned a low potential for fossils. The Whitewater River sands and gravels, eolian deposits, and valley alluvium are also assigned a low sensitivity for fossils due to their age and other factors. See Table 2-31 and Figure 2-10 for the paleontological sensitivity of geologic units within the project study area.

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SOURCE: USGS, 2020; Mapbox, 2020.

I-10 / Jackson Street Interchange Project

**Figure 2-10**

Paleontological Sensitivity Units Map

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**Table 2-31 Paleontological Sensitivity of Geologic Units Within Project Study Area**

| Age | Unit | Caltrans Sensitivity | Justification |
|---|---|---|---|
| <6,000 years old, late Holocene | Eolian sands | Low | These are reworked from other deposits, so any fossils present would not be *in situ*. |
| | Whitewater River deposits | Low | The nearest vertebrate fossils are from La Quinta. |
| | | low | Modern, channelized sediments have been deposited in the past 100 years, so any fossils present would not be *in situ.* |
| | Valley alluvium | Low | The nearest vertebrate fossils are from La Quinta. |
| | Lake Cahuilla beds | low | The nearest vertebrate fossils are from La Quinta. |

### 2.2.4.3 Environmental Consequences

#### *Temporary*

There are no temporary impacts on paleontological resources. Any impacts on such resources during the construction period are considered permanent impacts and are discussed under the permanent impacts heading below.

#### *Permanent*

*No-Build Alternative*

Under the No-Build Alternative, no effects on paleontological resources would occur.

*Build Alternatives 2 and 4*

The project footprint for both Build Alternatives 2 and 4 are similar; therefore, the discussion of Alternatives 2 and 4 below is combined into a single discussion of Build Alternatives, since implementation of either Build Alternative would result in similar impacts.

The literature, records search, and survey indicate that the project has low potential to affect important nonrenewable highly sensitive paleontological resources. No scientifically significant paleontological resources are anticipated to be impacted by the project. However, implementation of **PAL-1** would ensure that no impacts to sensitive paleontological resources would occur.

### 2.2.4.4 Avoidance, Minimization, and/or Mitigation Measures

No scientifically significant paleontological resources are anticipated to be impacted by the project. Due to this, no paleontological mitigation plan is required. However, implementation of **PAL-1** would ensure that no impacts to sensitive paleontological resources would occur.

**PAL-1:** If unanticipated discoveries are made all work must halt within 50 feet until a qualified paleontologist can evaluate the find. Work may resume immediately outside of the 50-foot radius.

## 2.2.5 Hazardous Waste/Materials

### 2.2.5.1 Regulatory Setting

Hazardous materials, including hazardous substances and wastes, are regulated by many state and federal laws. Statutes govern the generation, treatment, storage and disposal of hazardous materials, substances, and waste, and also the investigation and mitigation of waste releases, air and water quality, human health, and land use.

The primary federal laws regulating hazardous wastes/materials are the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, and the Resource Conservation and Recovery Act (RCRA) of 1976. The purpose of CERCLA, often referred to as "Superfund," is to identify and cleanup abandoned contaminated sites so that public health and welfare are not compromised. The RCRA provides for "cradle to grave" regulation of hazardous waste generated by operating entities. Other federal laws include:

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety and Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, Executive Order (EO) 12088, *Federal Compliance with Pollution Control Standards*, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

California regulates hazardous materials, waste, and substances under the authority of the CA Health and Safety Code and is also authorized by the federal government to implement RCRA in the state. California law also addresses specific handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning of hazardous waste. The Porter-Cologne Water Quality Control Act also restricts disposal of wastes and requires cleanup of wastes that are below hazardous waste concentrations but could impact ground and surface water quality. California regulations that address waste management and prevention and cleanup of contamination include Title 22 Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, Title 23 Waters, and Title 27 Environmental Protection.

Worker and public health and safety are key issues when addressing hazardous materials that may affect human health and the environment. Proper management and disposal of hazardous material is vital if it is found, disturbed, or generated during project construction.

### 2.2.5.2 Affected Environment

The primary sources used in the preparation of this section is the *Initial Site Assessment for the I-10/Jackson Street Interchange Project* (ESA 2020), A*erially Deposited Lead Report for Interstate 10/Jackson Interchange Project* (Earth Mechanics Inc., 2019) and the *Hazardous Material Assessment for the Interstate 10/Jackson Street Interchange Project* (ATC Group Services, 2019).

The purpose of conducting a Phase I ISA is to identify Recognized Environmental Conditions (RECs) as defined by the ASTM International (ASTM) E 1527-13 Standard Practice for Environmental Site Assessments. The ASTM E 1527-13 Standard Practice defines the term REC as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. It is important to note that De minimis conditions are not RECs."

The purpose of an ISA is to enable the parties relying on it to satisfy one or more of the requirements for the innocent landholder defense to liability under the CERCLA and to evaluate the potential for Recognized Environmental Conditions (RECs) at the project site. Three types of RECs are defined by the ASTM E1527-13, as listed below.

In addition, the updated ASTM E1527-13 defined the two additional categories cited below.

The term Historical Recognized Environmental Conditions (HREC) means:

> *A past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a historical recognized environmental condition, the environmental professional must determine whether the past release is a recognized environmental condition at the time the Phase I Environmental Site Assessment is conducted (for example, if there has been a change in the regulatory criteria). If the EP considers the past release to be a recognized environmental condition at the time the Phase I Environmental Site Assessment is conducted, the condition shall be included in the conclusions section of the report as a recognized environmental condition.*

For a past REC to be considered an HREC it must:

- Have already been remediated (or meet current standards without remediation)
- Not require use restrictions or engineering controls (e.g., cap, subslab depressurization system)
- Meet current standards

If the REC has use restrictions or engineering controls (e.g., cap, subslab depressurization system, etc.), then the REC may be designated as a Controlled Recognized Environmental Condition (CREC), as defined below. Unlike HRECs, a CREC will be listed in the conclusions section of the Phase I assessment, along with other RECs. The purpose of this new category is to bring continuing obligations such as use restrictions, maintenance requirements, reporting requirements, etc. to the forefront. The term CREC means:

> *A recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). A condition*

> *considered by the environmental professional to be a controlled recognized environmental condition shall be listed in the findings section of the Phase I Environmental Site Assessment report, and as a recognized environmental condition in the conclusions section of the Phase I Environmental Site Assessment report.*

RECs, HRECs, and CRECs are not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

The purpose of the asbestos and lead survey was to identify any accessible suspect asbestos-containing materials (ACM) and lead-containing materials, and inventory other hazardous materials including devices containing mercury, equipment containing polychlorinated biphenyls (PCBs), equipment containing chlorofluorocarbons (CFCs) and/or hydrochlorofluorocarbons (HCFCs), fluorescent light tubes in the structures.

No environmental site assessment can wholly eliminate uncertainty regarding the potential for RECs, HRECs, and CRECs in connection with a property. While every effort has been made to discover and interpret available historical and current information on the properties within the time available, some potential always remains for undiscovered contamination to be present.

The ISA completed for this project is based primarily on historical research, a database review, and a site reconnaissance of accessible areas. The conclusions presented are professional opinions based solely upon indicated data described in this report, visual site and vicinity observations, and the interpretation of the available historical information and documents reviewed, as described in this report.

### *Environmental Records Review*

The purpose of the records review is to obtain and examine records that could help to evaluate potential RECs, HRECs, and CRECs in connection with the ADI or study area. Federal, state, and local regulatory agencies publish databases of businesses and properties that handle hazardous materials or hazardous waste, including those properties with a known release of hazardous substances to soil and/or groundwater. A commercial database service was contacted to perform the regulatory records database search for listings within the appropriate ASTM Standard minimum search distance.

The study area was listed on five federal, State, or local regulatory agency databases. Closed (already cleaned up) sites within the search radius and operating sites with no records of releases or use violations were not considered since they would not pose a risk to the ADI. The following Table 2-32 summarizes the searched regulatory records.

**Table 2-32 Regulatory Records Review Search Sources**

| **Federal** |
|---|
| • Emergency Response Notification System (ERNS) |
| • Federal Institutional or Engineering Controls Registries (EC) |
| • Land Use Control Information System (LUCIS) |
| • Resource Conservation Recovery Act (RCRA) Sites with Controls |
| • RCRA-Generators List |
| • RCRA – Non-Generator |
| • FEMA Owned Storage Tanks |
| • Brownfields Management System |

| Federal |
|---|
| • Delisted National Priorities List |
| • No longer regulated RCRA Non-CORRACTS (Corrective Action Report) – Treatment, Storage, or Disposal Facility (TSDF) |
| • No longer regulated RCRA Corrective Action Faculties |
| • Superfund Enterprise Management System |
| • Superfund Enterprise Management System Archived Site Inventory |
| • U.S. EPA National Priority List (NPL), proposed NPL, and Delisted NPL Site List |
| • RCRA Corrective Action Facilities |
| • RCRA Subject to Corrective Action Facilities |
| **State/Local** |
| • DTSC Deed Restrictions |
| • Above Ground Storage Tanks |
| • Historic Underground Storage Tank |
| • Statewide Environmental Evaluation and Planning System |
| • Underground Storage Tanks |
| • Brownfield Sites |
| • CALSITES Database |
| • GEOTRACKER Cleanup Sites |
| • Leaking Underground Storage Tanks |
| • Solid Waste Information System Sites |
| • Voluntary Cleanup Program |
| • Envirostor Cleanup Sites |
| • State and tribal registered storage tank lists |
| • EnviroStor Permitted and Corrective Action Sites |

### *Database Search Results*

The following were identified in the regulatory database search results as being within the project area:

- J&L Materials Landscape Supply or Valley Block, located at 43320 Jackson Street. A Underground Storage Tank (UST) removal and closure report was prepared for the J&L Materials Landscape Supply property. In 1986, one 550-gallon diesel tank and one 550-gallon gasoline tank were removed. It was determined the gasoline tank had a hole that resulted in a leak and soil contamination. A groundwater remediation system consisting of a pneumatic pulse pump was installed in one of the four wells. The remediation system pumped groundwater to a 550-gallon aboveground storage tank (AST) with a 12-hour retention time then to the local sewer system. The system was shut down in December 1991 after water samples gathered in October 1991 showed some remaining contamination. In October 1996, after consultation with the Riverside County Local Oversight Review Committee and the Colorado River Regional Water Quality Control Board, based on the Lawrence Livermore study, it was determined that the levels of residual contamination at the site were low enough to not pose a risk to people or the environment and the site could be closed once the monitoring wells were destroyed. Following monitoring well destruction, the site was determined to be “closed.”

- Dateland Moving & Storage located at 43-695 Jackson Street. One 1,000-gallon UST was installed in 1977 beneath the parcel and contained TPHg. The historical UST facility is listed as "Active" by the Statewide Environmental Evaluation and Planning System (SWEEPS) database, and no leaks have been reported.
- Kirkpatrick Landscaping, Inc., located at 43752 Jackson Street. This property is listed in the RCRA-generator database for generating small quantities of hazardous waste. The facility is listed as active, and no violations, or corrective actions have been associated with the operations on this parcel.

  None of these are currently experiencing any hazardous waste leaks or exhibit hazardous waste that could potentially create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions.

  Historical aerial photographs, historical topographic maps, oil and gas well information and city directories did not reveal any other possible hazardous waste concerns in the project area.

### *Adjacent Properties*

Target Store #T2441 is located immediately north of the study area at 42625 Jackson Street and is listed three times on the RCRA – generator database. The Target Store is primarily listed as a RCRA – generator due to its generation of pharmaceutical wastes regulated under RCRA. Although the Target Store facilities identified above are listed as active hazardous waste generators, no violations, or corrective actions have been associated with the operations on this parcel. This Target Store site is not considered to contribute to environmental conditions on the project site.

The National Guard – Indio Armory is located immediately west of the study area at 43143 Jackson Street and is listed on the Hazardous Waste Tanner Summary (HWTS) and RCRA-Non Generator lists. The facility is listed as generating and disposing of oil-containing waste, organic solids, inorganic solid waste, liquids with pH less or equal to 2, and waste oil. The manifests were dated between 1993 through 1997. No violations were reported for the National Guard – Indio Armory and it maintains an active status per the Department of Toxic Substances Control (DTSC) EPA ID Profile dated July 29, 2020 (DTSC, 2020). This National Guard – Indio Armory site is not considered to contribute to environmental conditions on the project site.

## *Site Reconnaissance*

A visual observation of readily accessible areas of the subject site and immediately adjoining properties was conducted on August 2, 2018 and on September 5, 2020. The study area is located at the I-10/Jackson Street Interchange in Indio, California. The project limits extend from approximately Post Mile (PM) R54.9 to PM R56.5 along I-10 and from Kenner Avenue (South of I-10) to Atlantic Avenue (North of I-10) along Jackson Street. The portion of the Study area that is located northeast of the I-10, consists of recently developed parcels occupied by the Indio Towne Center with The Home Depot, and numerous restaurants. The northwest quadrant features a Super Target and other big box stores. The Whitewater River runs parallel to I-10 immediately south of the interchange. North Jackson Park, Andrew Jackson Elementary School, J&L Materials Landscape Supply, and residential communities are located south of the Whitewater River.

One unidentified substance container was observed during site reconnaissance activities on the adjacent parcel occupied by J C Automobile repair. However, no evidence of spills, leaks, or staining was observed from the unidentified substance container, and no faulting, or cracks were observed in the asphalt underlying the container. No other hazardous substance containers or unidentified substance containers were observed at the adjacent property during the site reconnaissance.

An underground storage tank is known to exist at 43695 Jackson Street and is located adjacent to the project right-of-way. The historical UST facility is listed as "Active" by the SWEEPS database, and no leaks have been reported. Additionally, based on available information and site reconnaissance activities, there are no ASTs located on the property.

A utility line runs along the northbound portion of Jackson Street and includes two pole-mounted transformers, which have the potential to contain PCBs. If these pole-mounted transformers are disturbed during construction, the release of PCBs to the surrounding environment would potentially constitute an REC. However, no leaks or staining were observed from the identified transformers.

Other than miscellaneous roadside refuse that had been discarded along the study area, either intentionally or unintentionally (i.e., windblown), no significant accumulation of solid waste was observed at the study area during the site reconnaissance activities, with the exception of one sofa. No dumping grounds were observed. Based on available information, no portion of the study area is currently or previously designated as a solid waste disposal site including adjacent sites.

### *Lead-Based Paints*

Lead is a hazardous substance. Its condition, handling and disposal are regulated by Federal, State, and local agencies. Lead-containing materials, LBP and LCP generally do not pose a health risk unless the material is disturbed or sufficiently deteriorated to produce dust, which may become airborne and inhaled or ingested.

Fieldwork in the project area occurred in May of 2018 to obtain samples for determining the presence of asbestos and lead based paint (LBP).

LBPs were commonly used in traffic striping materials before the discontinued use of lead chromate pigment in traffic striping/marking materials and hot-melt Thermoplastic stripe materials (discontinued in 1996 and 2004, respectively). A total of 13 paint-chip samples were collected and tested for lead content in accordance with the U.S. EPA Method 420 analytical protocol. Based on the results, none of the materials sampled meet the definition of lead-based paint or lead-containing paint.

### *Aerially Deposited Lead*

Aerially deposited lead (ADL) from the historical use of leaded gasoline, exists along roadways throughout California. There is the likely presence of soils with elevated concentrations of lead as a result of ADL on the state highway system right-of-way within the limits of the project alternatives. Soil determined to contain lead concentrations exceeding stipulated thresholds must be managed under the July 1, 2016, ADL Agreement between the Department and the California Department of Toxic Substances Control. This ADL Agreement allows such soils to be safely reused within the project limits as long as all requirements of the ADL Agreement are met.

In April 2019, an ADL Report for the project was completed. As part of the report, a total of 168 soil samples were collected for total lead content testing. The results of the soil testing concluded that lead levels in the soil were below the threshold to be considered hazardous. The site-soils can be re-used on-site, and the excess soil may be released to the contractor for disposal in accordance with local, state and federal guidelines, laws and regulations. Contractors excavating, transporting, or stockpiling soil should prepare a Lead Compliance Plan in accordance with the Caltrans Code of Safety Practices, California Code of Regulations and CalOSHA standards addressing the presence of ADL in the soils within the project area.

Additionally, yellow thermoplastic traffic stripes were also tested. Based on the test results, the on-site soils and yellow thermoplastic traffic stripes are considered as non-hazardous.

### *Asbestos-Containing Material*

Asbestos is a strong, incombustible, and corrosion resistant material, which was used in many commercial products since prior to the 1940s and up until the early 1970s. If inhaled, asbestos fibers can result in serious health problems. Asbestos containing materials (ACMs) are building materials containing more than 1 percent asbestos (some state and regional regulators impose a 0.1 percent threshold). Please note, in California, materials containing greater than 0.1 of 1 percent (>0.1 percent) asbestos are defined as asbestos-containing construction material (ACCM) and are regulated by the California Division of Occupational Safety and Health.

A total of 27 bulk asbestos samples were collected from the project area and analyzed by Polarized Light Microscopy (PLM) with dispersion staining. The results are in Table 2-33 below, Asbestos Survey Results. Materials identified as ACM or ACCM are denoted in **bold**.

**Table 2-33 Asbestos Samples**

| Sample Number | Homogenous Material | Location | Approximate Quantity | Asbestos Content |
|---|---|---|---|---|
| 1 | Reflector Mastic, black | I-10 Bridge South end East | NA | ND |
| 2 | Reflector Mastic, black | I-10 Bridge South end West | NA | ND |
| 3 | Reflector Mastic, black | 1-10 Bridge North end North | NA | ND |
| **4** | **Guard Rail Bracket Pad** | **1-10 Bridge North end North** | **90SF** | **60% Chrysotile** |
| **5** | **Guard Rail Bracket Pad** | **I-10 Bridge South end East** | **90SF** | **60% Chrysotile** |
| **6** | **Guard Rail Bracket Pad** | **I-10 Bridge South end West** | **90SF** | **50% Chrysotile** |
| 7 | Expansion Joint | 1-10 Bridge North end North | NA | ND |
| 8 | Expansion Joint | I-10 Bridge South end East | NA | ND |
| 9 | Expansion Joint | I-10 Bridge South end West | NA | ND |
| 10 | Concrete | I-10 Bridge South end West | NA | ND |
| 11 | Concrete | I-10 Bridge South end East | NA | ND |
| 12 | Concrete | 1-10 Bridge North end North | NA | ND |
| 13 | Asphalt | I-10 Bridge South end East | NA | ND |
| 14 | Asphalt | I-10 Bridge South end West | NA | ND |
| 15 | Asphalt | I-10 Bridge South end South | NA | ND |
| 16 | Reflector Mastic, black | Whitewater River Bridge North end East | NA | ND |
| 17 | Reflector Mastic, black | Whitewater River Bridge North end West | NA | ND |
| 18 | Reflector Mastic, black | Whitewater River Bridge South end South | NA | ND |
| **19** | **Guard Rail Bracket Pad** | **Whitewater River Bridge North end East** | **150 SF** | **60% Chrysotile** |
| **20** | **Guard Rail Bracket Pad** | **Whitewater River Bridge North end West** | **150 SF** | **60% Chrysotile** |
| **21** | **Guard Rail Bracket Pad** | **Whitewater River Bridge South end South** | **150 SF** | **50% Chrysotile** |
| 22 | Concrete | Whitewater River Bridge North end East | NA | ND |
| 23 | Concrete | Whitewater River Bridge North end West | NA | ND |
| 24 | Concrete | Whitewater River Bridge South end South | NA | ND |
| 25 | Asphalt | Whitewater River Bridge North end West | NA | ND |
| 26 | Asphalt | Whitewater River Bridge North end East | NA | ND |
| 27 | Asphalt | Whitewater River Bridge South end South | NA | ND |

ND= None Detected
NA= Not Applicable
SF= Square Feet
Source: ATC Group Services LLC, 2019

Based on the survey results, asbestos was identified in the guard rail bracket pads and it should be assumed that it is present in all the guard rail bracket pads that will be removed during construction.

#### 2.2.5.3 Environmental Consequences

***Temporary***

*No-Build Alternative*

Under the No-Build Alternative, no construction is proposed; therefore, no adverse effects under NEPA or significant impacts under CEQA would occur with respect to hazardous waste and materials.

*Build Alternatives 2 and 4*

The project footprint for both Alternatives 2 and 4 are similar; therefore, the discussion of Alternatives 2 and 4 below is combined into a single discussion of Build Alternatives, since implementation of either Build Alternative would result in similar impacts.

During construction of the project, there would be a possibility of accidental release of hazardous substances. However, the level of risk associated with the accidental release of hazardous substances is not considered to be adverse due to the small volume and low concentration of hazardous materials utilized during construction.

Because asbestos was identified in the guard rail bracket pads, it should be assumed that asbestos is present in all the guard rail bracket pads. The Department's Standard Special Provisions (SSP) and Non-Standard Special Provisions (NSSP) will be followed that provide contractors with guidance on preparing submittals and handling affected materials. In addition, SSP 14-9.02 A and 14-11.16 (see Chapter 1) will be followed to ensure that asbestos containing materials are properly identified and removed during construction. Implementation of avoidance and minimization measures **HAZ-2** and **HAZ-3**, described below, will ensure that all asbestos will be removed properly and safely, without accidental release.

Although the on-site transformers have not resulted in a REC on the subject site, any transformer to be relocated/removed during site construction/demolition should be conducted under the purview of the local jurisdiction to identify property-handling procedures regarding Polychlorinated Biphenyls (PCBs) (refer to avoidance and minimization measure **HAZ-4**, described below).

Lastly, implementation of avoidance and minimization measures **HAZ-1** and **HAZ-5** below will ensure that all hazardous materials are identified prior to construction and will ensure that proper handling and disposal measures are followed. Thus, the impact to hazardous wastes would be less than significant under CEQA, and there would be no adverse impacts under NEPA.

***Permanent***

*No-Build Alternative*

Under the No-Build Alternative, no improvements would be made to the existing interchange; therefore, there would be no impacts for hazardous resources as a result of this alternative.

*Build Alternatives 2 and 4*

The project footprint for both Alternatives 2 and 4 are similar; therefore, the discussion of both Build Alternatives below is combined into a single discussion of Build Alternatives, since implementation of either Build Alternative would result in similar impacts.

Operation of either Build Alternative is not expected to result in the creation of any new health hazards or expose people to potential new health hazards. As such, the Build Alternatives would not result in adverse effects. No permanent impacts related to hazardous materials are anticipated as a result of either Build Alternative, since operation of the project would not generate hazardous waste.

#### 2.2.5.4 Avoidance, Minimization, and/or Mitigation Measures

To ensure potential effects involving hazardous materials/waste during construction are avoided or reduced, the following avoidance, minimization, and/or mitigation measures will be implemented.

**HAZ-1:** A Phase II/Site Characterization Specialist shall conduct sampling in order to determine whether residual lead contamination exists within areas of proposed right-of-way acquisition for both build alternatives. Results of the sampling shall indicate soil management practices that will be employed, including the reuse of soils on-site, disposal of soils off-site, and worker safety precautions that may be necessary during construction.

**HAZ-2:** All on-site ACM shall be abated by a licensed asbestos abatement contractor prior to demolition/renovation activities. Any suspect materials found during future field activities that were not previously sampled shall be sampled prior to removal and abated as necessary.

**HAZ-3:** Applicable laws and regulations will be followed, including those provisions requiring notification to building occupants, renovation contractors, and workers of the presence of ACM and LBP.

**HAZ-4:** Although the on-site transformers have not resulted in a REC on the subject site, any transformer to be relocated/removed during site construction/demolition should be conducted under the purview of the local purveyor to identify property-handling procedures regarding PCBs.

**HAZ-5:** The contractor shall conduct work in compliance with the California Department of Transportation's (Caltrans) Unknown Hazards Procedures for Construction. In the event that suspect contamination is discovered during site disturbance/construction activities, work shall cease in the vicinity of the find and the contractor shall retain a qualified Phase II/Site Characterization Specialist to sample/test the suspect materials prior to removal from the site and subsequent disposal. The Specialist shall document the results and recommend further action if necessary, including contacting appropriate regulatory agencies.

## 2.2.6 Air Quality

### 2.2.6.1 Regulatory Setting

The Federal Clean Air Act (FCAA), as amended, is the primary federal law that governs air quality while the California Clean Air Act (CCAA) is its companion state law. These laws, and related regulations by the U.S. EPA and the California Air Resources Board (CARB), set standards for the concentration of pollutants in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). NAAQS and state ambient air quality standards have been established for six transportation-related criteria pollutants that have been linked to potential health concerns: \carbon monoxide (CO), nitrogen dioxide ($NO_2$), ozone ($O_3$), particulate matter (PM)—which is broken down for regulatory purposes into particles of 10 micrometers or smaller ($PM_{10}$) and particles of 2.5 micrometers and smaller ($PM_{2.5}$)—and sulfur dioxide ($SO_2$). In addition, national and state standards exist for lead (PB), and state standards exist for visibility reducing particles, sulfates, hydrogen sulfide ($H_2S$), and vinyl chloride. The NAAQS and state standards are set at levels that protect public health with a margin of safety, and are subject to periodic review and revision. Both state and federal regulatory schemes also cover toxic air contaminants (air toxics); some criteria pollutants are also air toxics or may include certain air toxics in their general definition.

Federal air quality standards and regulations provide the basic scheme for project-level air quality analysis under the NEPA. In addition to this environmental analysis, a parallel "Conformity" requirement under the FCAA also applies.

#### *Conformity*

The conformity requirement is based on FCAA Section 176(c), which prohibits the USDOT and other federal agencies from funding, authorizing, or approving plans, programs, or projects that do not conform to State Implementation Plan (SIP) for attaining the NAAQS. "Transportation Conformity" applies to highway and transit projects and takes place on two levels: the regional (or planning and programming) level and the project level. The proposed project must conform at both levels to be approved.

Conformity requirements apply only in nonattainment and "maintenance" (former nonattainment) areas for the NAAQS, and only for the specific NAAQS that are or were violated. U.S. EPA regulations at 40 Code of Federal Regulations (CFR) 93 govern the conformity process. Conformity requirements do not apply in unclassifiable/attainment areas for NAAQS and do not apply at all for state standards regardless of the status of the area.

Regional conformity is concerned with how well the regional transportation system supports plans for attaining the NAAQS for carbon monoxide (CO), nitrogen dioxide (NO2), ozone (O3), particulate matter (PM10 and PM2.5), and in some areas (although not in California), sulfur dioxide (SO2). California has nonattainment or maintenance areas for all of these transportation-related "criteria pollutants" except SO2, and also has a nonattainment area for lead (Pb); however, lead is not currently required by the FCAA to be covered in transportation conformity analysis. Regional conformity is based on emission analysis of Regional Transportation Plans (RTPs) and Federal Transportation Improvement Programs (FTIPs) that include all transportation projects planned for a region over a period of at least 20 years (for the RTP) and 4 years (for the FTIP). RTP and FTIP conformity uses travel demand and emission models to determine whether or not the implementation of those projects would conform to emission budgets or other tests at various analysis years showing that requirements of the FCAA and the SIP are met. If the conformity analysis is successful, the Metropolitan Planning Organization (MPO), FHWA, and Federal Transit Administration (FTA) make the determinations that the RTP and FTIP are in conformity with the SIP for achieving the goals of the FCAA. Otherwise, the projects in the RTP and/or FTIP must be modified until conformity is attained. If the design concept and scope and the "open-to-traffic" schedule

of a proposed transportation project are the same as described in the RTP and FTIP, then the proposed project meets regional conformity requirements for purposes of project-level analysis.

Project-level conformity is achieved by demonstrating that the project comes from a conforming RTP and TIP; the project has a design concept and scope[3] that has not changed significantly from those in the RTP and TIP; project analyses have used the latest planning assumptions and U.S. EPA-approved emissions models; and in PM areas, the project complies with any control measures in the SIP. Furthermore, additional analyses (known as hot-spot analyses) may be required for projects located in CO and PM nonattainment or maintenance areas to examine localized air quality impacts.

### 2.2.6.2 Affected Environment

The primary source used in the preparation of this section is the *Air Quality Report for the I--10/Jackson Street Interchange Improvement Project*, dated August 2019 (ESA 2019).

#### *Environmental Setting*

The project is centrally located within the City of Indio at the crossroad of I-10, Jackson Street, and the Coachella Valley Stormwater Channel. The project site lies within the northeastern portion of the Salton Sea Air Basin (Basin), which includes the Coachella Valley portion of Riverside County and all of Imperial County. The Basin is governed by the South Coast Air Quality Management District (SCAQMD) and is included in the local Metropolitan Planning Organization (MPO), the Southern California Association of Governments (SCAG).

#### *Climate*

The City of Indio is located in Riverside County, in the Coachella Valley (Valley) of Southern California's Colorado Desert region. The Coachella Valley is located in southeast Riverside County from the San Bernardino Mountains to the northern shore of the Salton Sea. The Valley is bounded on the southwest by the Santa Rosa Mountains, by the San Jacinto Mountains to the west, the Little San Bernardino Mountains to the east and San Gorgonio Mountain to the north. These mountains peak at around 11,000 feet and tend to average between 5,000 and 7,000 feet.

The Palm Springs Airport climatological station, maintained by the SCAQMD, is located near the project site and is representative of meteorological conditions near the project. The climate of the Coachella Valley is influenced by the surrounding geography. High mountain ranges on three sides contribute to its unique and year-round warm climate, with some of warmest winters west of the Rocky Mountains. The surrounding mountains create Thermal Belts in the immediate foothills of the Coachella Valley, leading to higher night-time temperatures in the winter months, and lower daytime temps during the summer months. The Valley is the northwestern extension of the Sonoran Desert to the southeast, and as such, is extremely arid. Most precipitation falls during the winter months from passing mid-latitude frontal systems from the north and west, nearly all of it as rain, but with snow atop the surrounding mountains. Rain also falls during the summer months as surges of moisture from both the Gulf of Mexico and the Gulf of California are drawn into the area by the desert monsoon. Occasionally, the remnants of a Pacific tropical cyclone can also affect the valley.

The City of Indio has a warm winters and hot summer climate. Average annual high temperature is 90 degrees Fahrenheit (°F) and average annual low is 62 °F. Summer highs above 108 °F are common and sometimes exceed 120 °F, while summer night lows often stay above 82 °F. Winters are warm with

[3] "Design concept" means the type of facility that is proposed, such as a freeway or arterial highway. "Design scope" refers to those aspects of the project that would clearly affect capacity and thus any regional emissions analysis, such as the number of lanes and the length of the project.

daytime highs often between 68–86 °F. Under 4 inches of annual rain are average, with over 348 days of sunshine per year.

### *Attainment Status*

Regional air quality is monitored locally by SCAQMD in conjunction with CARB. The Clean Air Act (CAA) requires the U.S. EPA to set National Ambient Air Quality Standards (NAAQS) for six criteria air contaminants: ozone ($O_3$), particulate matter ($PM_{2.5}$ and $PM_{10}$), carbon monoxide (CO), nitrogen dioxide ($NO_2$), lead (Pb), and sulfur dioxide ($SO_2$). It also permits states to adopt additional or more protective air quality standards if needed. California has set standards for certain pollutants. Table 2-34 documents the current federal and State air quality standards. The U.S. EPA determines regional air quality status based on data collected from permanent monitoring stations. An area is classified as “attainment" if the primary NAAQS have been achieved and "nonattainment" if the NAAQS are not achieved. Within the project area $PM_{2.5}$, $SO_2$, $NO_2$ and Pb are currently in attainment with federal and State standards. CO is designated as maintenance and $O_3$ and $PM_{10}$ are currently in nonattainment. The Basin air quality status is summarized in Table 2-35.

## Table 2-34 Ambient Air Quality Standards

| Pollutant | Average Time | California Standards[1] | | National Standards[2] | | |
|---|---|---|---|---|---|---|
| | | Concentration[3] | Method[4] | Primary[3,5] | Secondary[3,6] | Method[7] |
| $O_3$[8] | 1 Hour | 0.09 ppm (180 µg/m$^3$) | Ultraviolet Photometry | — | Same as Primary Standard | Ultraviolet Photometry |
| | 8 Hour | 0.070 ppm (137 µg/m$^3$) | | 0.070 ppm (137 µg/m$^3$) | | |
| $PM_{10}$[9] | 24 Hour | 50 µg/m$^3$ | Gravimetric or Beta Attenuation | 150 µg/m$^3$ | Same as Primary Standard | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | 20 µg/m$^3$ | | — | | |
| $PM_{2.5}$[9] | 24 Hour | — | — | 35 µg/m$^3$ | Same as Primary Standard | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | 12 µg/m$^3$ | Gravimetric or Beta Attenuation | 12 µg/m$^3$ | 15 µg/m$^3$ | |
| CO | 1 Hour | 20 ppm (23 mg/m$^3$) | Non-Dispersive Infrared Photometry (NDIR) | 35 ppm (40 mg/m$^3$) | — | Non-Dispersive Infrared Photometry (NDIR) |
| | 8 Hour | 9.0 ppm (10mg/m$^3$) | | 9 ppm (10 mg/m$^3$) | — | |
| | 8 Hour (Lake Tahoe) | 6 ppm (7 mg/m$^3$) | | — | — | |
| $NO_2$[10] | 1 Hour | 0.18 ppm (339 µg/m$^3$) | Gas Phase Chemi-luminescence | 100 ppb (188 µg/m$^3$) | — | Gas Phase Chemi-luminescence |
| | Annual Arithmetic Mean | 0.030 ppm (57 µg/m$^3$) | | 0.053 ppm (100 µg/m$^3$) | Same as Primary Standard | |
| $SO_2$[11] | 1 Hour | 0.25 ppm (655 µg/m$^3$) | Ultraviolet Fluorescence | 75 ppb (196 µg/m$^3$) | — | Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method) |
| | 3 Hour | — | | — | 0.5 ppm (1300 µg/m$^3$) | |
| | 24 Hour | 0.04 ppm (105 µg/m$^3$) | | 0.14 ppm (for certain areas)[11] | — | |
| | Annual Arithmetic Mean | — | | 0.030 ppm (for certain areas)[11] | — | |
| Lead[12,13] | 30 Day Average | 1.5 µg/m$^3$ | Atomic Absorption | — | — | High Volume Sampler and Atomic Absorption |
| | Calendar Quarter | — | | 1.5 µg/m$^3$(for certain areas)[12] | Same as Primary Standard | |
| | Rolling 3-Month Average | — | | 0.15 µg/m$^3$ | | |
| Visibility Reducing Particles[14] | 8 Hour | See footnote 14 | Beta Attenunation and Transmittance through Filter Tape | No Federal Standards | | |
| Sulfates ($SO_4$) | 24 Hour | 25 µg/m$^3$ | Ion Chromatography | | | |
| Hydrogen Sulfide | 1 Hour | 0.03 ppm (42 µg/m$^3$) | Ultraviolet Fluorescence | | | |
| Vinyl Chloride[12] | 24 Hour | 0.01 ppm (26 µg/m$^3$) | Gas Chromatography | | | |

## Table 2-34 Ambient Air Quality Standards

| Pollutant | Average Time | California Standards[1] | | National Standards[2] | | |
|---|---|---|---|---|---|---|
| | | Concentration[3] | Method[4] | Primary[3,5] | Secondary[3,6] | Method[7] |

Notes:

[1] California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in section 70200 of Title 17 of the California Code of Regulations.

[2] National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 micrograms/per cubic meter (µg/m$^3$) is equal to or less than 1. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

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

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

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

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

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

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

[9] On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m$^3$ to 12.0 µg/m$^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 µg/m$^3$, as was the annual secondary standard of 15 µg/m$^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 µg/m$^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

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

[11] On June 2, 2010, a new 1-hour $SO_2$ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 $SO_2$ national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated non-attainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of ppb. California standards are in units of ppm. To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

[12] CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[13] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m3 as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated non-attainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

[14] In 1989, CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Source: CARB, Ambient Air Quality Standards (5/4/16), Available online: https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf. Accessed August 2020

**Table 2-35 State and Federal Attainment Status**

| Pollutant | State Attainment Status | Federal Attainment Status |
|---|---|---|
| Ozone ($O_3$) | Nonattainment | Nonattainment (Extreme) |
| Respirable Particulate Matter ($PM_{10}$) | Nonattainment | Nonattainment (Serious) |
| Fine Particulate Matter ($PM_{2.5}$) | Attainment | Attainment/Unclassified |
| Carbon Monoxide (CO) | Attainment | Attainment – Maintenance (Serious) |
| Nitrogen Dioxide ($NO_2$) | Attainment | Attainment |
| Sulfur Dioxide ($SO_2$) | Attainment | Attainment – Unclassified |
| Lead (Pb) | Attainment | Attainment – Unclassified |
| Visibility-Reducing Particles | Unclassified | N/A |
| Sulfates | Attainment | N/A |
| Hydrogen Sulfide | Unclassified | N/A |
| Vinyl Chloride | Unclassified | N/A |

Table 2-36 describes the status of the U.S. EPA-approved SIPs for the Salton Sea Air Basin that are relevant to the project.

**Table 2-36 Status of SIPs Relevant to the Project Area**

| Name | Description |
|---|---|
| 2012 Air Quality Management Plan | The 2012 AQMP includes a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, and on-road and off-road mobile sources. It highlights the significant amount of emission reductions needed and the urgent need to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria air pollutant standards within the timeframes allowed under the CAA.[4]<br>The key undertaking of the 2012 AQMP is to bring the Air Basin into attainment with the NAAQS for the 24-hour $PM_{2.5}$ standard. It also intensifies the scope and pace of continued air quality improvement efforts toward meeting the 2024 8-hour $O_3$ standard deadline with new measures designed to reduce reliance on the CAA section 182(e)(5) long-term measures for $NO_X$ and VOC reductions. |
| 2016 Air Quality Management Plan | While the 2016 AQMP is the most recent and was adopted by SCAQMD and CARB, it has not received full U.S. EPA approval for inclusion in the SIP. Therefore, until such time as the 2016 AQMP is completely approved by the U.S. EPA, the 2012 AQMP remains the applicable AQMP.<br>Key elements of the 2016 AQMP include implementing fair-share emissions reductions strategies at the federal, state, and local levels; establishing partnerships, funding, and incentives to accelerate deployment of ZE and near-zero-emissions (NZE) technologies; and taking credit from co-benefits from greenhouse gas, energy, transportation and other planning efforts.5 The strategies included in the 2016 AQMP are intended to demonstrate attainment of the NAAQS for the national non-attainment pollutants ozone and $PM_{2.5}$.[6] |
| 2003 Coachella Valley PM10 State Implementation Plan | This plan includes control measures for the abatement of large particulates in Coachella Valley. These dust control measures target construction and earth movement activities, disturbed vacant lands, impaired roads and lots, paved road dust, and agriculture. |

[4] South Coast Air Quality Management District, 2013. *Final 2012 Air Quality Management Plan*. February 2013.
[5] South Coast Air Quality Management District, 2017. *Final 2016 Air Quality Management Plan*. March 2017.
[6] South Coast Air Quality Management District, 2016. *NAAQS/CAAQS and Attainment Status for South Coast Air Basin*. 2016.

### *Transportation Conformity Rule*

The conformity requirement is based on Federal Clean Air Act Section 176(c), which prohibits the USDOT and other federal agencies from funding, authorizing, or approving plans, programs, or projects that do not conform to State Implementation Plan (SIP) for attaining the NAAQS. "Transportation Conformity" applies to highway and transit projects and takes place on two levels: the regional—or, planning and programming level—and the project level. The proposed project must conform at both levels to be approved.

Conformity requirements apply only in nonattainment and "maintenance" (former nonattainment) areas for the NAAQS, and only for the specific NAAQS that are or were violated. The U.S. EPA regulations at 40 CFR 93 govern the conformity process. Conformity requirements do not apply in unclassifiable/attainment areas for NAAQS and do not apply at all for state standards regardless of the status of the area.

Regional conformity is concerned with how well the regional transportation system supports plans for attaining the NAAQS for carbon monoxide (CO), nitrogen dioxide ($NO_2$), ozone ($O_3$), particulate matter ($PM_{10}$ and $PM_{2.5}$), and in some areas (although not in California), sulfur dioxide ($SO_2$). California has attainment or maintenance areas for all of these transportation-related "criteria pollutants" except $SO_2$, and also has a nonattainment area for lead (Pb); however, lead is not currently required by the FCAA to be covered in transportation conformity analysis. Regional conformity is based on emission analysis of Regional Transportation Plans (RTPs) and Federal Transportation Improvement Programs (FTIPs) that include all transportation projects planned for a region over a period of at least 20 years (for the RTP), and 4 years (for the FTIP). RTP and FTIP conformity uses travel demand and emission models to determine whether or not the implementation of those projects would conform to emission budgets or other tests at various analysis years showing that requirements of the Clean Air Act and the SIP are met. If the conformity analysis is successful, the Metropolitan Planning Organization (MPO), FHWA, and Federal Transit Administration (FTA), make the determinations that the RTP and FTIP are in conformity with the SIP for achieving the goals of the Clean Air Act. Otherwise, the projects in the RTP and/or FTIP must be modified until conformity is attained. If the design concept, scope, and "open-to-traffic" schedule of a proposed transportation project is the same as described in the RTP and the TIP, then the proposed project meets regional conformity requirements for purposes of project-level analysis.

Project-level conformity is achieved by demonstrating that the project comes from a conforming RTP and TIP and the project has a design concept and scope[7] that has not changed significantly from those in the RTP and TIP. If the design concept and scope have changed substantially from that used in the RTP Conformity analysis, RTP and TIP amendments may be needed. Project-level conformity also needs to demonstrate that project analyses have used the latest planning assumptions and U.S. EPA-approved emissions models; the project complies with any control measures in the SIP in PM areas. Furthermore, additional analyses (known as hot-spot analyses) may be required for projects located in CO and PM nonattainment or maintenance areas to examine localized air quality impacts.

### *Local Ambient Air Quality*

The project area is in Source Receptor Area 30. The closest air monitoring station is the Jackson Street monitoring station (46-990 Jackson Street, Indio), which is approximately 1.6 miles south of the project site. This station monitors ambient concentrations of $O_3$, $PM_{10}$, and $PM_{2.5}$. The Palm Springs monitoring station (Fs-590 Racquet Club Ave, Palm Springs) is located approximately 19 miles northwest of the project site and monitors CO and $NO_2$. Both monitoring stations are shown in Figure 2-11. Monitored

[7] "Design concept" means the type of facility that is proposed, such as a freeway or arterial highway. "Design scope" refers to those aspects of the project that would clearly affect capacity and thus any regional emissions analysis, such as the number of lanes and the length of the project.

data presented in Tables 2.37 and 2.38 indicate that the maximum CO, $NO_2$, and $PM_{2.5}$ concentrations collected have not exceeded the federal standard over the past 5 years. $PM_{10}$ and $O_3$ concentrations have exceeded the federal standard multiple times over the past 5 years.

**Table 2-37 Air Quality Concentrations for the Past 5 Years Measured at Jackson Street Monitoring Station**

| Pollutant | Standard | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|
| ***Ozone*** | | | | | | | |
| Max 1-hr concentration | | 0.105 | 0.095 | 0.093 | 0.099 | 0.107 | 0.106 |
| No. days exceeded: | | | | | | | |
| State | 0.09 ppm | 2 | 2 | 0 | 3 | 8 | N/A |
| Max 8-hr concentration | | 0.087 | 0.091 | 0.086 | 0.090 | 0.094 | 0.091 |
| No. days exceeded: | | | | | | | |
| State | 0.070 ppm | 38 | 30 | 12 | 29 | 47 | NA |
| Federal | 0.070 ppm | 35 | 24 | 11 | 27 | 44 | 49 |
| ***$PM_{10}$*** | | | | | | | |
| Max 24-hr concentration | | 159 | 299 | 382.0 | 261.2 | 143.1 | 123 |
| No. days exceeded: | | | | | | | |
| State | 50 µg/m$^3$ | 85 | 95 | N/A | 138 | N/A | N/A |
| Federal | 150 µg/m$^3$ | 3 | 6 | N/A | N/A | 1 | 0 |
| Max annual concentration | | 38.6 | 44.8 | N/A | 48.8 | N/A | N/A |
| No. days exceeded: | | | | | | | |
| State | 20 µg/m$^3$ | N/A | N/A | N/A | N/A | N/A | N/A |
| ***$PM_{2.5}$*** | | | | | | | |
| Max 24-hr concentration | | 25.8 | 18.3 | 24.6 | 25.8 | 18.8 | 28.7 |
| No. days exceeded: | | | | | | | |
| Federal | 35 µg/m$^3$ | 0 | N/A | N/A | 0 | N/A | 0 |
| Max annual concentration | | 8.4 | N/A | N/A | 7.7 | N/A | N/A |
| No. days exceeded: | | | | | | | |
| State | 12 µg/m$^3$ | N/A | N/A | N/A | N/A | N/A | N/A |
| Federal | 12.0 µg/m$^3$ | N/A | N/A | N/A | N/A | N/A | N/A |

Notes:

N/A - There was insufficient (or no) data available to determine the value.
hr – hour
No. – number

Source: CARB, https://www.arb.ca.gov/adam/index.html, Accessed January 2018.

**Table 2-38 Air Quality Concentrations for the Past 5 Years Measured at Palm Springs Monitoring Station**

| Pollutant | Standard | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|
| ***Carbon Monoxide*** | | | | | | | |
| Max 1-hr concentration | | 3.2 | 2.2 | 2.0 | 3.1 | 1.0 | 1.1 |
| No. days exceeded: | | | | | | | |
| State | 20 ppm | 0 | 0 | 0 | 0 | 0 | N/A |
| Federal | 35 ppm | 0 | 0 | 0 | 0 | 0 | 0 |
| Max 8-hr concentration | | 1.4 | 0.8 | 0.7 | 1.5 | 0.5 | 0.8 |
| No. days exceeded: | | | | | | | |
| State | 9 ppm | 0 | 0 | 0 | 0 | 0 | N/A |
| Federal | 9 ppm | 0 | 0 | 0 | 0 | 0 | 0 |
| ***Nitrogen Dioxide*** | | | | | | | |
| Max 1-hr concentration | | 52 | 46 | 42 | 43 | 43 | 43 |
| No. days exceeded: | | | | | | | |
| State | 0.18 ppm | 0 | 0 | 0 | 0 | 0 | N/A |
| Federal | 100 ppb | 0 | 0 | 0 | 0 | 0 | 0 |
| Max annual concentration | | 7 | 7 | 6 | 6 | 6 | 6.75 |
| No. days exceeded: | | | | | | | |
| State | 0.030 ppm | 0 | 0 | 0 | 0 | 0 | N/A |
| Federal | 53 ppb | 0 | 0 | 0 | 0 | 0 | 0 |

Notes:

N/A - There was insufficient (or no) data available to determine the value.
hr – hour
No. – number

Source: CARB, https://www.arb.ca.gov/adam/index.html, Accessed January 2018.

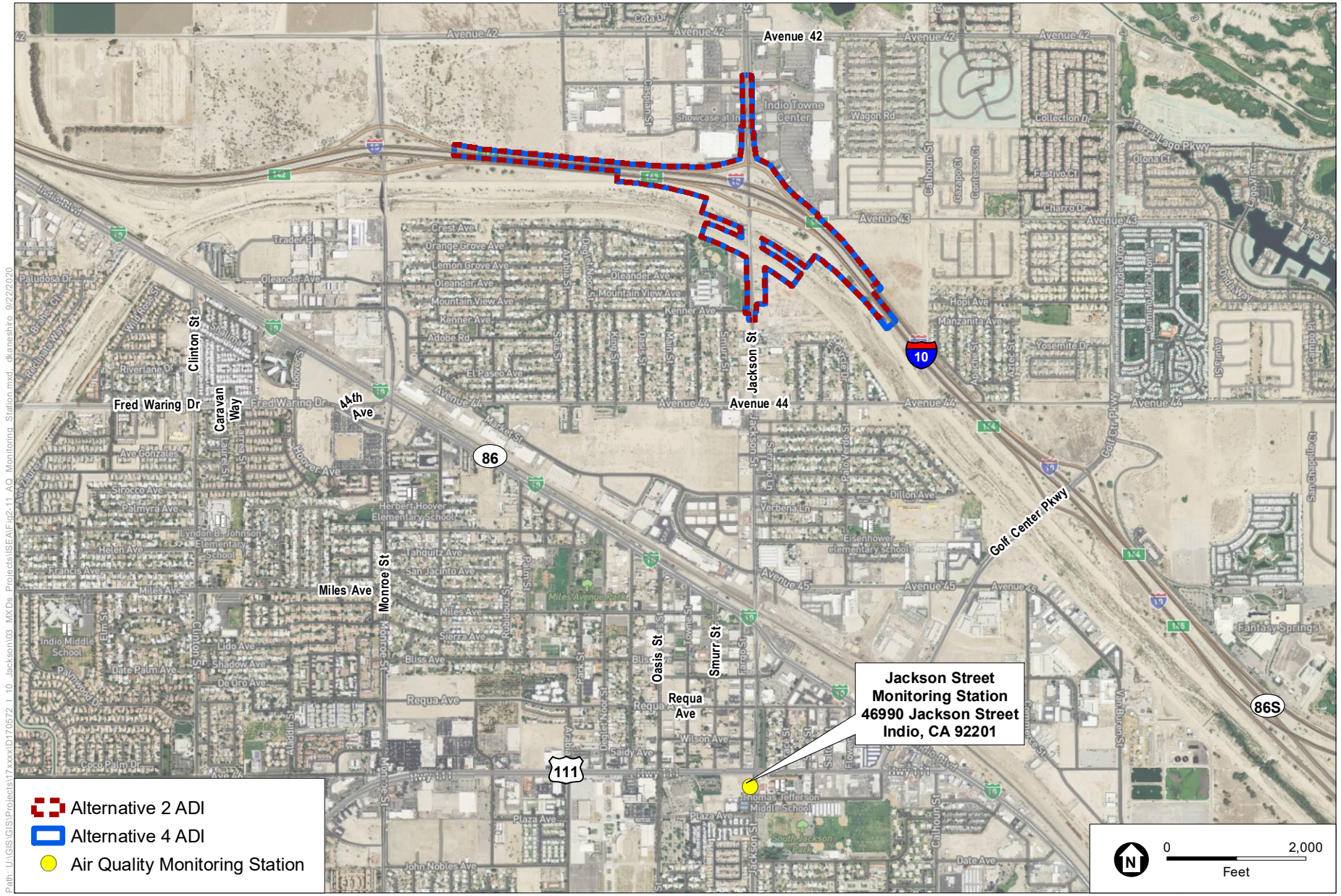
### 2.2.6.3 Sensitive Receptors

Generally, people that are more sensitive to air quality conditions are young children, the elderly, and people with immune deficiencies; therefore, land uses, such as schools, daycare facilities, hospitals, elderly care facilities, and other areas that are occupied by people susceptible to air quality pollutants, are considered sensitive air quality receptors. Residential land uses are also considered to be sensitive receptors.

The area surrounding the site supports a variety of land uses including outdoor recreational use areas (North Jackson Park), single-family residences, restaurants, commercial properties, a hotel (Fairfield Inn and Suites) and a school (Andrew Jackson Elementary School). Andrew Jackson Elementary school is located approximately 1,000 feet south of the I-10 and 270 feet west of Jackson Street. Some residential land uses are located approximately 600 feet from the edge of the I-10 travel lanes and 190 feet from improvements made to Jackson Street.

On the basis of research showing that the zone of greatest concern near roadways is within 500 feet (or 150 meters), sensitive receptors within 500 feet have been identified and are documented in Table 2-39. Given the large size of the project and its potential to influence receptors at greater distances, sensitive receptors within 2,000 feet are also listed in Table 2-39. The location of sensitive receptors within 2,000 feet of the project site are depicted in Figure 2-12.

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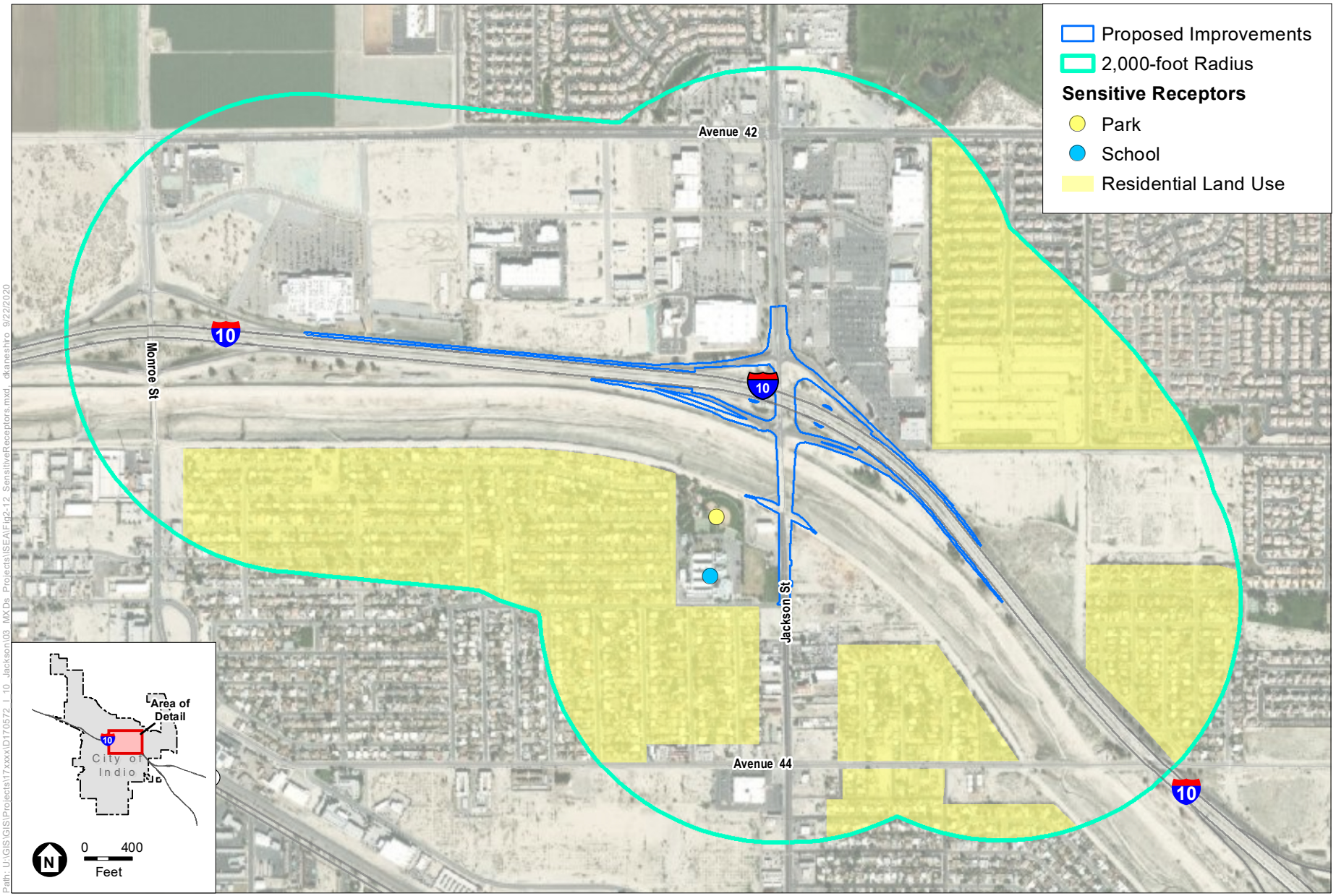

SOURCE: Riverside County GIS; ESRI.

I-10 / Jackson Street Interchange Project

**Figure 2-11**

Location of Indio-Jackson Air Quality Monitoring Station

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SOURCE: Riverside County GIS

I-10 / Jackson Street Interchange Project

**Figure 2-12**

Sensitive Receptors Located Near the Proposed Project

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**Table 2-39 Sensitive Receptors Located within 2,000 Feet of the Project Site**

| Receptor | Description | Distance Between Receptor and Project (ft) |
|---|---|---|
| North Jackson Park | City park open to the public with playground, baseball fields, tennis courts, and a baseball court. | 625 feet (I-10)<br>290 feet (Jackson Street) |
| Andrew Jackson Elementary School | Kindergarten through 5th grade public elementary school. | 1,000 feet (I-10)<br>270 feet (Jackson Street) |
| Residential Properties | Community of single-family residences adjacent to the I-10 and Jackson Street. | 600 feet (I-10)<br>190 feet (Jackson Street) |

### *Mobile Source Air Toxics*

The largest sources of mobile source air toxics (MSAT) in the project area are cars and trucks on I-10, Monroe Street, and other major thoroughfares in the project vicinity. Ambient MSAT data are available from CARB's website (http://www.arb.ca.gov/adam/toxics/toxics.html).

## 2.2.6.4 Naturally Occurring Asbestos

Naturally occurring asbestos (NOA) is present in approximately 44 of California's 58 counties. Asbestos is often found in serpentine rock and ultramafic rock near fault zones. Asbestos is a human health hazard when airborne. Asbestos fibers can be inhaled into lungs, causing inflammation and respiratory ailments and cancers. The project, well within an established urban area, is not near any known major sources of NOA (California Department of Conservation, Division of Mines and Geology 2000).

## 2.2.6.5 Environmental Consequences

### *Temporary*

#### *No-Build Alternative*

Under the No-Build Alternative, the proposed project would not be constructed. Short-term impacts on air quality would not occur.

#### *Build Alternatives 2 and 4*

The project footprint for both Alternatives 2 and 4 are similar; therefore, the discussion of Alternatives 2 and 4 below is combined into a single discussion of Build Alternatives, since implementation of either Build Alternative would result in similar impacts.

Site preparation and roadway construction will involve clearing, cut-and-fill activities, grading, removing or improving existing roadways, and paving roadway surfaces. During construction, short-term degradation of air quality is expected from the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other activities related to construction. Emissions from construction equipment powered by gasoline and diesel engines are also anticipated and would include CO, NOX, VOCs, directly emitted PM10 and PM2.5, and toxic air contaminants (TACs) such as diesel exhaust particulate matter. Construction activities are expected to increase traffic congestion in the area, resulting in increases in emissions from traffic during the delays. These emissions would be temporary and limited to the immediate area surrounding the construction site.

The construction period for the project is expected to occur over 2 stages for a total of approximately 24 months. Construction emissions are typically not considered in conformity analyses where construction

will last for 5 years or less. However, EO-B-30-15 requires construction impacts to be considered, including GHG emissions estimation, regardless of length of the construction period. Therefore, construction emissions were estimated using the latest SMAQMD's RCEM, Version 9.0.0.

Construction activities for both Build Alternative 2 and Build Alternative 4 would be the same; therefore, the estimated construction-related emissions provided in Table 2-40 would apply to both Build Alternatives. Construction emissions were estimated for both Build Alternatives using default equipment inventories provided in RCEM, project construction scheduling information provided by the project engineer, and emissions factors from the EMFAC 2017 and OFFROAD models. The emissions presented are the worst-case maximum daily construction emissions (pounds per day) for each activity that would be generated by both Build Alternatives.

Although construction emissions are anticipated to be below SCAQMD thresholds, contractors would be required to follow all applicable SCAQMD rules and regulations, including Rule 403 (Fugitive Dust) and Rule 431 (Diesel Equipment), to minimize air quality impacts. Contractors, for example, would water dusty areas and minimize the tracking of soil from unpaved dirt areas to paved roads.

**Table 2-40 Construction Emissions for Phase 1 and Phase 2**

| Emissions Parameter | ROG | $NO_x$ | CO | $SO_2$ | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| Land Clearing/ Grubbing | 1.19 | 11.39 | 10.97 | 0.03 | 20.50 | 4.60 |
| Grading/Excavation | 8.25 | 89.20 | 67.43 | 0.18 | 23.67 | 7.41 |
| Drainage/Utilities/Sub-Grade | 5.57 | 55.57 | 47.82 | 0.11 | 22.29 | 6.25 |
| Paving | 1.09 | 10.54 | 14.19 | 0.03 | 0.52 | 0.43 |
| Maximum Daily | 8.25 | 89.20 | 67.43 | 0.18 | 23.67 | 7.41 |
| SCAQMD Construction Threshold (local emissions) | 75 | 100 | 550 | 150 | 150 | 55 |
| **Exceed Threshold?** | **NO** | **NO** | **NO** | **NO** | **NO** | **NO** |
| SCAQMD LST, SRA #30 (local emissions) | N/A | 425 | 5,331 | N/A | 67 | 19 |
| **Exceed Threshold?** | **N/A** | **NO** | **NO** | **N/A** | **NO** | **NO** |

Notes:

lbs = pounds; N/A = not applicable

ROG – reactive organic compounds; NOx – nitrogen oxides; CO – carbon monoxide; $SO_2$ – sulfur dioxide; $PM_{10}$ – particulates under 10 microns; $PM_{2.5}$ – particulates under 2.5 microns. lb – pound; NA – not applicable; SCAQMD – South Coast Air Quality Management District; LST – Localized Significance Threshold; SRA – Source Receptor Area. Project emissions of ROG, NOx, CO, $PM_{10}$, and $PM_{2.5}$ were estimated using the Road Construction Emissions Model, Version 9.0.0. $SO_2$ emissions estimated based on fuel consumption and use of ultra-low sulfur fuel (15 parts per million).

### *Local Significance Threshold*

SCAQMD developed the Localized Significance Threshold (LST) methods to assist CEQA lead agencies in analyzing local air quality impacts from simple projects. The LST methods allow users to determine, without dispersion modeling, if a project would cause or contribute to an exceedance of the applicable ambient air quality standard. The LST methods are based on the maximum daily allowable on-site emissions, the total area of the emissions source, the ambient air quality in each Source Receptor Area (SRA) in which the emission source is located, and the distance to the nearest exposed individual. The LST includes look-up tables for emissions of $NO_2$, CO, $PM_{10}$, and $PM_{2.5}$. If project emissions are less than the LST values, then the proposed activity is considered not to violate or substantially contribute to an existing or projected air quality standard.

SCAQMD's LST methods were used in this analysis to evaluate ambient air quality impacts from project construction. The LST guidance indicates that the methods are appropriate for small construction sites. The LST analysis assumed a 5-acre site because that is the largest area that would be disturbed at any given time. Distance to the nearest sensitive receptor was assumed to be 100 meters due to the size of the site and the distances to the nearest residential areas.

Project emissions were compared to the project-specific LST values in Table 2-40 to determine the significance of project impacts. Table 2-40 shows that emissions from project construction would not exceed any applicable LST, and, therefore, could not result in a violation of an air quality standard.

### *Toxic Air Contaminant Emissions*

During the construction period, which is scheduled to last approximately 30 months, short-term generation of pollutants from construction vehicles and equipment would occur. However, the construction period is much shorter than the assumed 30-year exposure period used to estimate lifetime cancer risks, as recommended by the California Office of Environmental Health Hazard Assessment. Furthermore, given the linear nature of the project, sensitive receptors would be exposed to pollutants for a small portion of the total construction period because equipment would not be operated at any one location along the alignment for an extended period of time. The diesel particulate matter generated from construction equipment would be sporadic, transitory, and short term in nature. Therefore, the project would not expose receptors to acute and/or chronically hazardous TAC pollutants.

It is also important to note that there is considerable uncertainty in trying to evaluate the cancer risk from projects that will only last a small fraction of a lifetime, as cancer potency factors are based on animal lifetime studies where there is long-term exposure.

### *Odors*

The project would not be a significant source of odors. The project would modify an existing transportation facility, and any odors generated by the project would be similar in nature to odors generated from the existing facility. Construction activities, such as paving, would potentially introduce odors to the surrounding project area. However, these odors would be temporary and short-term and would stop upon the completion of construction. Therefore, the project is not anticipated to generate significant odors.

Furthermore, construction of the project would not create substantial levels of odors in the surrounding area. Exhaust emissions from construction vehicles and equipment and fugitive emissions from other construction activities would be tightly controlled. The minor amounts of odors generated by on-site construction activities would be substantially dispersed and diluted to negligible levels in adjacent off-site areas.

### *Aerially Deposited Lead*

Lead is normally not an air quality issue for transportation projects unless the project involves disturbance of soils containing high levels of aerially deposited lead (ADL) or painting or modification of structures with lead-based coatings. ADL is common in the immediate vicinity of freeways and highways due to lead from gasoline engine emissions.

### *Naturally Occurring Asbestos*

Asbestos is a known carcinogen and can be released from these rocks when they are broken and crushed or by weathering and erosion. When NOA is disturbed by construction, grading and other surface activities, asbestos fibers can become airborne. Such activities are regulated by CARB to reduce dust emissions during construction-related activities. Structural asbestos (demolition) is regulated by federal

and related state/air district regulations (federal regulations include National Emission Standards for Hazardous Air Pollutants [NESHAP], www.epa.gov/ttn/atw/asbes/asbespg.html), whereas naturally occurring asbestos (NOA) is regulated by CARB and worker-safety programs (www.arb.ca.gov/toxics/asbestos/asbestos.htm).

State and federal health officials consider all types of asbestos to be hazardous. No safe asbestos exposure level has been established for residential areas. The risk of disease depends upon the intensity and duration of exposure. Exposure to low levels of asbestos for short periods of time poses minimal risk. Asbestos fibers can penetrate body tissues and remain in the lungs and the tissue lining of the lungs and abdominal cavity. The fibers that remain in the body are thought to be responsible for asbestos-related diseases. The illness caused by asbestos may not be observed for twenty or more years. The most common serious diseases caused by asbestos are asbestosis, lung cancer, and mesothelioma.

The project is located in the City of Indio in Riverside County, which is not specifically listed as containing naturally occurring asbestos (Governor's Office of Planning and Research (OPR), October 26, 2000). Therefore, the impact from naturally occurring asbestos (NOA) during construction of the project would be minimal to none. However, the project requires the reconfiguration of the existing overcrossing and ramps. Prior to the reconfiguration of the structures, NESHAP requirements will be followed to identify the potential presence of asbestos. If removal of asbestos is needed, asbestos-certified contractors will be utilized to remove and properly dispose of the asbestos.

### *Permanent*

#### *No-Build Alternative*

Under the No-Build Alternative, neither bridge modifications nor replacement would occur. Effects on air quality would not occur.

#### *Build Alternatives 2 and 4*

The project footprint for both Alternatives 2 and 4 are similar; therefore, the discussion of Alternatives 2 and 4 below is combined into a single discussion of Build Alternatives, since implementation of either Build Alternative would result in similar impacts.

The project would not create new sources of motor vehicle traffic but could induce some motorists to alter their existing routes. Air pollutant emissions would not increase overall due to operation of the project—and could decrease if project improvements resulted in more efficient traffic operations—but could be marginally higher along Jackson Street if vehicle volumes increased. Operational impacts would be negligible, and no mitigation measures are required.

### *Regional Conformity*

This project is not exempt from regional (40 CFR 93.127) conformity requirements. Therefore, separate listing of the project in the Regional Transportation Plan and Transportation Improvement Program, and their regional conformity analyses, is necessary. The project will not interfere with timely implementation of Transportation Control Measures identified in the applicable SIP and regional conformity analysis.

The proposed project is listed in the Final 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) financially constrained Regional Transportation Plan, which was found to conform by SCAG's Regional Council on April 7, 2016, and FHWA and FTA made a regional conformity determination finding in June 2016. The project is also included in SCAG's financially constrained 2019 Federal Transportation Improvement Program (FTIP). The 2019 Federal Transportation Improvement Program was determined to conform by FHWA and FTA on December 17, 2018. The

design concept and scope of the proposed project is consistent with the project description in the 2016 RTP, 2019 FTIP, and the "open to traffic" assumptions of SCAG's regional emissions analysis.

### *Project-Level Conformity*

The pollutants of primary concern when assessing project-level impacts of transportation projects are CO, $PM_{10}$, and $PM_{2.5}$. Elevated concentrations of these pollutants tend to accumulate near areas of heavy traffic congestion where average vehicle speeds are low. Tailpipe emissions are of concern when assessing localized impacts of CO, $PM_{10}$, and $PM_{2.5}$ along paved roads. The project is located in the South Coast Air Basin and is in nonattainment for ozone and $PM_{10}$ and characterized as a maintenance area for CO, thus a project-level conformity analysis for both CO and $PM_{10}$ is required under 40 CFR 93.109. MSATs will also be assessed on a project-level basis.

The *Particulate Matter Hot-Spot Analysis* and *Carbon Monoxide Protocol* are followed to determine if the proposed project demonstrates project-level conformity with the SIP. The SSAB is in nonattainment status for the federal $PM_{10}$ standards and in attainment status for the federal CO standard. Therefore, a project-level hot-spot analysis is required for $PM_{10}$ but not for CO under 40 CFR 93.109.

On March 10, 2006, U.S. EPA published amendments to the Transportation Conformity Rule that establish conformity criteria and procedures for determining which transportation projects must be analyzed for local air quality impacts. These amendments update the requirements for the analysis of project-level air quality impacts in $PM_{10}$ and $PM_{2.5}$ nonattainment and maintenance areas.

Sections 3 and 4 of the CO Protocol describe the methods to determine whether a CO hot-spot analysis is required. The Protocol provides two conformity decision flowcharts designed to assist project sponsors in evaluating the requirements that apply to their project. The CO Protocol was followed for this project and determined that a quantitative analysis is not necessary.

### *Particulate Matter Hot-Spot Analysis*

In November 2015, the U.S. EPA released an updated version of Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in $PM_{2.5}$ and $PM_{10}$ Nonattainment and Maintenance Areas (Guidance) for quantifying the local air quality impacts of transportation projects and comparing them to the PM NAAQS (75 FR 79370). The U.S. EPA originally released the quantitative guidance in December 2010, and released a revised version in November 2013 to reflect the approval of EMFAC 2011 and U.S. EPA's 2012 PM NAAQS final rule. CT-EMFAC2014 was used to calculate operational emissions, based on the Traffic Operations Report (TOAR) (Fehr & Peers, 2019) developed for this project. CT-EMFAC2014 is a California-specific project-level analysis tool for modeling emissions of criteria pollutants, MSATs, and carbon dioxide from on-road vehicles.

Because of the nonattainment status of PM10, the project was required to undergo interagency consultation with SCAG's Transportation Conformity Working Group (TCWG). On March 26, 2019, the TCWG provided concurrence that the project was not a POAQC based on the $PM_{2.5}$ and $PM_{10}$ report form that was submitted, as shown in Appendix E. Also provided in Appendix E is the TCWG's confirmation that the project in not a POAQC and does not require a hot-spot analysis to be performed. The PM hot-spot analysis and documentation of concurrence are provided in Chapter 4 of this IS/EA.

### *Emissions Analysis*

Existing (2018) emissions in the project corridor were estimated using CT-EMFAC2014 emission factors, for comparison to the No-Build and two Build Alternatives. The conditions under the No-Build Alternative would provide no interchange improvements to the I-10/Jackson Street interchange. Congestion within the project corridor would continue to increase and contribute to decreased air quality,

specifically for $PM_{10}$ and $PM_{2.5}$, within the project corridor and region, as shown Table 2-41. The future opening year (2025) and design year (2045) for No-Build and both Build Alternative emissions would be approximately the same due to AADT and VMT volumes remaining the same between the No-Build and both Build scenarios. CO and $NO_x$ emissions would be slightly lower for Build Alternative 4, due to a slight decrease in delay times. Both Build Alternative emissions would be less than existing for CO and $NO_2$. This decrease is due to the decrease in delays on the I-10 travel lanes and local roadway intersections, which generally result in lower emission rates.

**Table 2-41 Summary of Comparative Emissions Analysis**

| Scenario/ Analysis Year | CO (tons/day) | $PM_{10}$ (tons/day) | $PM_{2.5}$ (tons/day) | NOx (surrogate for $NO_2$) (tons/day) |
|---|---|---|---|---|
| Baseline (Existing Conditions) 2018 | 2.229 | 0.202 | 0.060 | 0.598 |
| No-Build 2025 | 1.432 | 0.222 | 0.062 | 0.331 |
| Build Alternative 2 2025 | 1.432 | 0.222 | 0.062 | 0.331 |
| Build Alternative 4 2025 | 1.430 | 0.222 | 0.062 | 0.330 |
| No-Build 2045 | 1.383 | 0.294 | 0.081 | 0.240 |
| Build Alternative 2 2045 | 1.380 | 0.294 | 0.081 | 0.239 |
| Build Alternative 4 2045 | 1.376 | 0.294 | 0.081 | 0.238 |

Notes:
CO = carbon monoxide
$PM_{10}$ = particulate matter less than or equal to 10 microns in diameter
$PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter
NOx = oxides of nitrogen
$NO_2$ = nitrogen dioxide

### *Carbon Monoxide*

A hot-spot analysis is required in nonattainment and maintenance areas for CO, $PM_{10}$, and $PM_{2.5}$. In California, the procedures of the local analysis for CO are modified pursuant to 40 CFR 93.123(a)(1) of the Transportation Conformity Rule. As discussed in the Air Quality Report, the CO hot-spot analysis demonstrates that future predicted CO concentrations would generally be lower than existing concentrations due to the decrease in per-vehicle emissions resulting from improved technology and lower background concentrations. The project would not create or contribute to a violation of state or national ambient CO standards; therefore, local CO project level transportation conformity requirements are satisfied.

### *Mobile Source Air Toxics Analysis*

In October 2016, the FHWA updated the interim guidance on how MSATs should be addressed in NEPA documents for highway projects. FHWA developed a tiered approach for analyzing MSATs in NEPA documents. Depending on the specific project circumstances, FHWA has identified three levels of analysis:

1. No analysis for exempt projects with no potential for meaningful MSAT effects: for example, projects qualifying as a categorical exclusion under 23 CFR 771.117(c), projects exempt under the CAA conformity rule under 40 CFR 93.126, or other projects with no meaningful impacts on traffic volumes or vehicle mix.

2. Qualitative analysis for projects with low potential MSAT effects: for example, minor widening projects, new interchanges, projects that improve operations of highways, transit, or freight without adding substantial new capacity or without creating a facility that is likely to meaningfully increase emissions.
3. Quantitative analysis to differentiate alternatives for projects with higher potential MSAT: projects that would be in this category must:
    - Create or significantly alter a major intermodal freight facility that has the potential to concentrate high levels of DPM in a single location; or
    - Create new or add significant capacity to urban highways such as interstates, urban arterials, or urban collector-distributor routes with traffic volumes where the AADT is projected to be in the range of 140,000 to 150,000 or greater by the design year; and
    - Propose to be located in proximity to populated areas or in rural areas in proximity to concentrations of vulnerable populations (i.e., schools, nursing homes, hospitals).

Upon review of the traffic data from the project's traffic study and the FHWA guidance categories described above, the project could potentially have a high MSAT effect. The project is located in a populated area and AADT in the future design year conditions (2045) is not estimated to be greater than 140,000. However, the project will be located in proximity to populated areas; therefore, a quantitative analysis is appropriate for assessing air quality impacts from operation of the project. The future AADT volumes remain the same between future No-Build and Build conditions; however, AADT volumes increase from Existing (2018) conditions to future design year (2045) by nearly 50,000 vehicles.

Traffic activity data were estimated for each different period of a representative day in the baseline (2018), opening (2025), and design (2045) years. Appendix A includes traffic activity data. The results of the comparative MSAT emissions analysis are provided in Table 2-42. The result of the comparative MSAT emission analysis show that future toxic emissions will decrease from Existing (baseline) conditions. Toxic emissions will remain the same between future No-Build and both Build Alternative conditions. Operation of the project will not worsen air quality within the Basin.

**Table 2-42 Summary of Comparative MSAT Emissions Analysis**

| Scenario/ Analysis Year | 1,3-butadiene (lbs/day) | Acetaldehyde (lbs/day) | Acrolein (lbs/day) | Benzene (lbs/day) | Diesel PM (lbs/day) | Ethylbenzene (lbs/day) | Formaldehyde (lbs/day) | Naphthalene (lbs/day) | Polycyclic Organic Matter (lbs/day) | Diesel Exhaust Organic Gas (lbs/day) | Black Carbon (lbs/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Baseline (Existing Conditions) 2018 | 1.04 | 3.27 | 0.22 | 4.97 | 11.46 | 1.96 | 8.18 | 0.15 | 0.23 | 34.74 | 3.65 |
| No-Build 2025 | 0.60 | 1.64 | 0.13 | 2.82 | 3.99 | 1.14 | 4.21 | 0.09 | 0.12 | 16.35 | 2.17 |
| Build Alternative 2 2025 | 0.60 | 1.64 | 0.13 | 2.82 | 3.99 | 1.14 | 4.21 | 0.09 | 0.12 | 16.35 | 2.17 |
| Build Alternative 4 2025 | 0.60 | 1.63 | 0.13 | 2.81 | 3.98 | 1.13 | 4.19 | 0.09 | 0.12 | 16.26 | 2.16 |
| No-Build 2045 | 0.58 | 2.12 | 0.12 | 2.78 | 3.29 | 1.10 | 5.08 | 0.10 | 0.10 | 22.53 | 1.59 |
| Build Alternative 2 2045 | 0.58 | 2.11 | 0.12 | 2.77 | 3.28 | 1.09 | 5.06 | 0.10 | 0.10 | 22.40 | 1.59 |
| Build Alternative 4 2045 | 0.58 | 2.09 | 0.12 | 2.75 | 3.28 | 1.08 | 5.01 | 0.10 | 0.10 | 22.14 | 1.58 |

### 2.2.6.6 Avoidance, Minimization, and/or Mitigation Measures

The Department's Standard Specifications pertaining to dust control and dust palliative requirements are required to be part of all construction contracts and should effectively reduce and control emission impacts during construction. Implementation of the following avoidance and minimization measures would reduce fugitive dust air quality emissions resulting from construction activities:

**AQ-1:** The construction contractor must comply with Caltrans Standard Specifications in Section 14-9 (Caltrans, 2018):

- Section 14-9.02 includes specifications relating to compliance with air pollution control rules, regulations, ordinances, and statutes of the local ordinances and air quality management district.
- Section 14-9.03 includes specifications relating to preventing and alleviating dust by applying water, dust palliative, or both and by covering active and inactive stockpiles.

**AQ-2:** The construction contractor must comply with the SCAQMD Rule 403 (Fugitive Dust) specifies actions or control measures to prevent or reduce PM emissions generated from construction, demolition, excavation, extraction, and other earthmoving activities.

**AQ-3:** Water or dust palliative will be applied to the site and equipment as frequently as necessary to control fugitive dust emissions.

**AQ-4:** Soil binder will be spread on any unpaved roads used for construction purposes and all project construction parking areas.

**AQ-5:** Trucks will be washed off as they leave the ROW as necessary to control fugitive dust emissions.

**AQ-6:** Construction equipment and vehicles shall be properly tuned and maintained. Low-sulfur fuel shall be used in all construction equipment as provided in California Code of Regulations Title 17, Section 93114.

**AQ-7:** Locate equipment and materials storage sites as far away from residential and park uses as practical. Keep construction areas clean and orderly.

**AQ-8:** Use track-out reduction measures such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic.

**AQ-9:** Cover all transported loads of soils and wet materials prior to transport or provide adequate freeboard (i.e., space from the top of the material to the top of the truck) to reduce $PM_{10}$ and deposition of particulate during transportation.

**AQ-10:** Remove dust and mud that are deposited on paved, public roads due to construction activity and traffic to decrease PM.

#### *Climate Change*

Neither the United States Environmental Protection Agency (U.S. EPA) nor the Federal Highway Administration (FHWA) has issued explicit guidance or methods to conduct project-level greenhouse gas analysis. FHWA emphasizes concepts of resilience and sustainability in highway planning, project development, design, operations, and maintenance. Because there have been requirements set forth in California legislation and executive orders on climate change, the issue is addressed in the California Environmental Quality Act (CEQA) chapter of this document. The CEQA analysis may be used to inform the National Environmental Policy Act (NEPA) determination for the project.

## 2.2.7 Noise

### 2.2.7.1 Regulatory Setting

The National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) provide the broad basis for analyzing and abating highway traffic noise effects. The intent of these laws is to promote the general welfare and to foster a healthy environment. The requirements for noise analysis and consideration of noise abatement and/or mitigation, however, differ between NEPA and CEQA.

#### *California Environmental Quality Act*

CEQA requires a strictly baseline versus build analysis to assess whether a proposed project will have a noise impact. If a proposed project is determined to have a significant noise impact under CEQA, then CEQA dictates that mitigation measures must be incorporated into the project unless those measures are not feasible. The rest of this section will focus on the NEPA/23 Code of Federal Regulations Part 772 (23 CFR 772) noise analysis; please see Chapter 3 of this document for further information on noise analysis under CEQA.

#### *National Environmental Policy Act and 23 CFR 772*

For highway transportation projects with the Federal Highway Administration (FHWA) involvement (and the Department, as assigned), the Federal-Aid Highway Act of 1970 and its implementing regulations (23 Code of Federal Regulations [CFR] 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations include noise abatement criteria (NAC) that are used to determine when a noise impact would occur. The NAC differ depending on the type of land use under analysis. For example, the NAC for residences (67 dBA) is lower than the NAC for commercial areas (72 dBA). Table 2-43 lists the noise abatement criteria for use in the NEPA/23 CFR 772 analysis.

**Table 2-43 Activity Categories and Noise Abatement Criteria (Title 23 CFR 772)**

| Activity Category | NAC, Hourly A-Weighted Noise Level, Leq(h) | Description of activity category |
|---|---|---|
| A | 57 (Exterior) | Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. |
| B[1] | 67 (Exterior) | Residential. |
| C[1] | 67 (Exterior) | Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings. |
| D | 52 (Interior) | Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios. |
| E | 72 (Exterior) | Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A–D or F. |

| Activity Category | NAC, Hourly A-Weighted Noise Level, Leq(h) | Description of activity category |
|---|---|---|
| F | No NAC—reporting only | Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical, etc.), and warehousing. |
| G | No NAC—reporting only | Undeveloped lands that are not permitted. |

[1] Includes undeveloped lands permitted for this activity category.

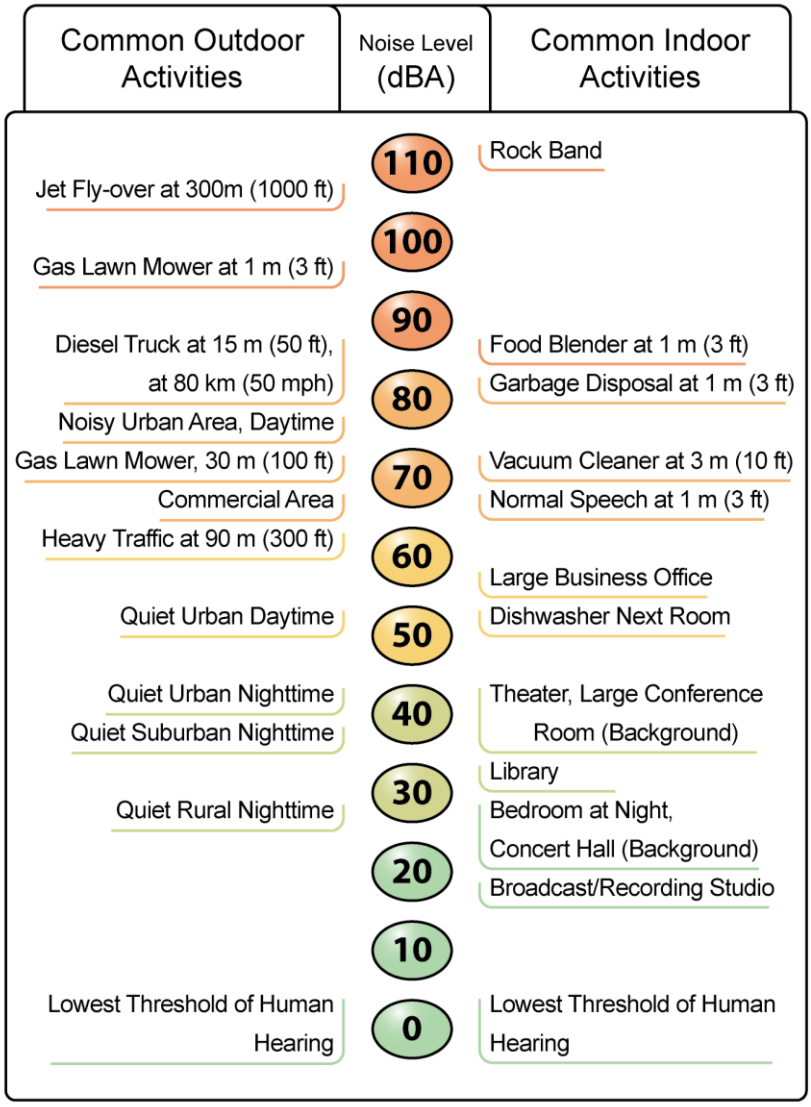
Figure 2-13 lists the noise levels of common activities to enable readers to compare the actual and predicted highway noise levels discussed in this section with common activities.

According to the Department's *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects* (May 2011), a noise impact occurs when the predicted future noise level with the project substantially exceeds the existing noise level (defined as a 12 dBA or more increase) or when the future noise level with the project approaches or exceeds the NAC. Approaching the NAC is defined as coming within 1 dBA of the NAC.

If it is determined that the project will have noise impacts, then potential abatement measures must be considered. Noise abatement measures that are determined to be reasonable and feasible at the time of final design are incorporated into the project plans and specifications. This document discusses noise abatement measures that would likely be incorporated in the project.

The Department's *Traffic Noise Analysis Protocol* sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasibility of noise abatement is basically an engineering concern. A minimum 5 dBA reduction for all impacted receptors in the future noise levels must be achieved for an abatement to be considered feasible. Other considerations include topography, access requirements, other noise sources, and safety considerations. Factors that affect the design and constructability of noise abatement include, but are not limited to, safety, barrier height, topography, drainage, access requirements for driveways, presence of local cross streets, underground utilities, other noise sources in the area, and maintenance of the abatement measure. The overall reasonableness of noise abatement is determined by the following three factors: (1) the noise reduction design goal of 7 dB at one or more impacted receptors; (2) the cost of noise abatement; and (3) the viewpoints of benefited receptors (including property owners and residents of the benefited receptors).

**Figure 2-13 Noise Levels of Common Activities**




### 2.2.7.2 Affected Environment

The primary source used in the preparation of this section is the *I-10/Jackson Street Interchange Improvement Project Noise Study Report* (NSR), dated June 2020 (California Department of Transportation 2020). A thorough field investigation was conducted to identify areas of frequent human use that could be subject to traffic noise impacts and to consider the physical setting of the highway alignment relative to those areas. Land uses in the project area were categorized by land use type; activity category, as defined in Table 2-43; noise abatement criteria; and the extent of frequent human use. As stated in the Protocol, noise abatement is only considered for areas of frequent human use that would benefit from a lowered noise level. Accordingly, the impact analysis focuses on locations with defined outdoor use areas, which include residential backyards of homes, a park, the interior and exterior of an elementary school, the pool area of two hotels, and an outdoor eating area at a restaurant. In addition, generalized receptors were also included for unpermitted lands within the study area. Generalized receptors are positioned no closer than 100 feet from the edge of the outside traffic lane in the area that best represents the highest expected traffic noise level.

Land uses in the project area have been grouped into a series of lettered analysis areas that are identified in Figure 2-12. Each of these analysis areas is considered to be acoustically equivalent.

**Area A:** Area A is located on the north side of the I-10, directly east of Monroe Street. A Walmart is located in this area; however, no frequently used outdoor area was identified during the field investigation. This area also contains undeveloped, unpermitted land (Activity Category G). This area is generally flat and no noise barrier is located or topographic shielding occurs between the roadways and the land.

**Area B:** Area B is located north of the I-10 and west of Jackson Street. This area contains two hotels (Activity Category E), the Hampton Inn & Suites and the Fairfield Inn & Suites. There are also commercial land uses, there were no frequently used outdoor areas at these locations. This area is generally flat and no noise barrier is located or topographic shielding occurs between the roadways and the land.

**Area C:** Area C is located north of the I-10 and east of Jackson Street. This area contains commercial land uses and restaurants. A frequently used outdoor area was located at the Panda Inn restaurant (Activity Category E). This area is lower in elevation than the adjacent Jackson Street westbound off-ramp. The area is generally flat and no noise barrier is located or topographic shielding occurs between the roadways and the land.

**Area D:** Area D is located northeast of the I-10 mainline and east of Jackson Street. This area contains single-family residences (Activity Category B) and undeveloped land permitted for single-family residences (Activity Category B). There is also undeveloped, unpermitted land (Activity Category G) located in this area. This area is lower in elevation than the I-10 mainline. The area is generally flat and no noise barrier is located or topographic shielding occurs between the roadways and the land.

**Area E:** Area E is located south of the I-10 and east of Monroe Street. This area contains single-family residences (Activity Category B). This area is generally flat and no noise barrier is located between the roadway and the land. There are however berms on either side of the stormwater channel that provides topographic shielding between I-10 and the residential properties.

**Area F:** Area F is located south of the I-10 and west of Jackson Street. This area contains the North Jackson Park (Activity Category C) and the Andrew Jackson Elementary School (Activity Category C and Activity Category D) and commercial properties with no frequently used outdoor areas. This area is generally flat and no noise barrier is located between the roadway and the land. There are however berms on either side of the stormwater channel that provides topographic shielding between I-10 and the park and school.

**Area G:** Area G is located south of the I-10, directly south of Kenner Avenue and west of Jackson Street. This area contains single-family residences (Activity Category B), undeveloped (unpermitted) land (Activity Category G), and commercial land uses that do not have frequently used outdoor areas. This area is generally flat, the residences have wooden fences between the local roads (Jackson Street and Kenner Avenue).

**Area H:** Area H is located south of the I-10 and east of the Jackson Street. This area contains single-family residences (Activity Category B) and commercial land uses that do not have frequently used outdoor areas. This area is generally flat and no noise barrier is located between the roadway and the land. There are however berms on either side of the stormwater channel that provides topographic shielding between I-10 and single-family residences.

### 2.2.7.3 Environmental Consequences

Pursuant to the Department's *Traffic Noise Analysis Protocol* (May 2011), and associated guidance provided in 23 CFR 772, a Type I project is a project that involves any of the following:

1. The construction of a highway on a new location.
2. The physical alteration of an existing highway that would involve either of the following:
    a. Substantial horizontal alteration: a project that halves the distance between the traffic noise source and the closest receptor between the existing condition and the future build condition.
    b. Substantial vertical alteration: a project that removes shielding thereby exposing the line-of-sight between the receptor and the traffic noise source. This is done by altering either the vertical alignment of the highway or the topography between the highway traffic noise source and the receptor.
3. The addition of a through-traffic lane(s). This includes the addition of a through-traffic lane that functions as a high occupancy vehicle lane, high-occupancy toll lane, bus lane, or truck climbing lane.
4. The addition of an auxiliary lane, except for when the auxiliary lane is a turn lane.
5. The addition or relocation of interchange lanes or ramps added to a quadrant to complete an existing partial interchange.
6. Restriping existing pavement for the purpose of adding a through- traffic lane or an auxiliary lane.
7. The addition of a new or substantial alteration of a weigh station, rest stop, ride-share lot, or toll plaza.

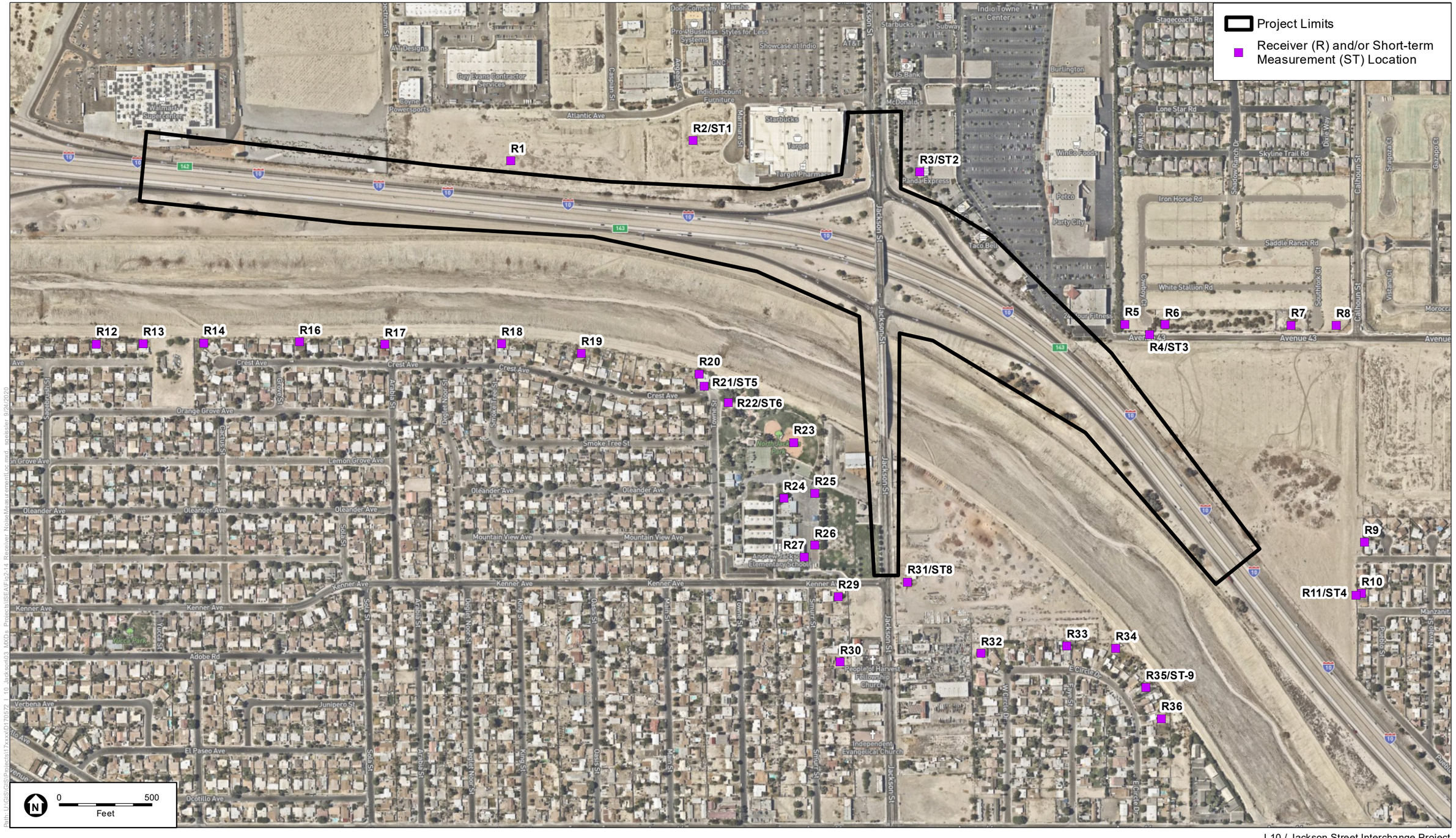
The project is considered a Type 1 project because it would alter the vertical and horizontal alignment of I-10 as a result of constructing the interchange at Jackson Street.

#### *Noise Measurement Sites*

Twelve short-term (including three from the I-10/Monroe Street Interchange Improvement project, ST-10, ST-11, and ST-12) and one long-term (LT-1) outdoor noise measurements were taken throughout the project study area to calibrate the Traffic Noise Model (TNM) version 2.5 computer noise model. Specific measurement sites were chosen to be representative of acoustically distinct areas, based on their relationship to the I-10 and Jackson Street facilities and the varying topographic features between the areas and the roadways. All measurement sites were selected so that unusual noise from sources such as barking dogs, air-conditioners, pool pumps, or car alarms would not affect the measurement.

Short-term noise measurements were conducted on Tuesday, June 26, 2018; Wednesday, June 27, 2018; and January 14, 2020, using Larson Davis (LD) Model LxT1 Precision Type 1 sound level meters at nine sites on multiple days for two consecutive 10-minute intervals for a total duration of 20 minutes each. Additionally, three short-term (calibration) sites from the Noise Study Report that was developed for the I-10/Monroe Street Interchange Improvement Project are used in this noise study.[8] These short-term measurement sites are labeled, ST10, ST11, and ST12. Short-term monitoring was conducted at Activity Category B, C, E, and G land uses when traffic was free-flowing. The short-term measurement locations are identified in Figure 2-13. Table 2-44 summarizes the short-term noise measurement results. Sound level meters were attended by field staff to record observations concurrent with the measurements.

[8] Parsons Corporation. Noise Study Report for the Interstate 10/Monroe Street Interchange Improvement Project. October 2019.




SOURCE: Open Street Map, 2019.

I-10 / Jackson Street Interchange Project

**Figure 2-14**

Receiver and Noise Measurement Locations

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The equivalent sound level (Leq) values collected during each measurement period (10 minutes in duration) were automatically recorded with digital integrating sound-level meters and subsequently logged manually on field data sheets for each measurement location. The short-term measurements were repeated to ensure consistency per the guidance provided in the Caltrans Technical Noise Supplement (TeNS). Dominant noise sources observed and other relevant measurement conditions were identified and logged manually on the field data sheets. The calibration of the meter was checked before and after the measurement using Larson-Davis model CA250 calibrators.

Temperature, wind speed, and humidity were recorded manually during the short-term monitoring session. During the short-term measurements, wind speeds typically ranged from 3 to 7 miles per hour (mph). Temperatures ranged from 80–110°F, with relative humidity typically 17–23 percent.

One long-term noise level measurement was conducted at 83510 Avenue 44 for a period of 24 consecutive hours. The long-term noise measurement site is identified in Figure 2-14. The purpose of the long-term measurement was to identify variations in sound levels throughout the day, rather than absolute sound levels at a specific receiver of concern. The long-term sound level data was collected beginning Tuesday, June 26, 2018, at 9:00 AM. The average loudest-hour sound level measured was 67.7 dBA $L_{eq(h)}$ during the 9:00 PM hour on Tuesday, June 26, 2018. Table 2-45 summarizes the results of the long-term monitoring.

A total of twelve short-term measurements, ST1 through ST12 (including three from the I-10/Monroe Street Interchange Improvement project, ST-10, ST-11, and ST-12), were conducted for the purpose of calibrating the TNM 2.5 computer noise model. The traffic volumes were recorded through the use of a video camera and traffic speeds were recorded with a radar gun. The traffic counts were tabulated according to five vehicle types: automobiles, medium trucks (two axles with six tires), heavy trucks (three or more axles), buses, and motorcycles.

As a general rule, the noise model is considered to be calibrated if the field measured noise levels versus the modeled noise levels (using field-collected traffic data) agree less than 3.0 dB of each other. If differences are 3.0 dB or higher, refinement of the noise model is performed until there is agreement between the two values. If, after thorough re-evaluation, calibration still cannot be achieved due to complex topography or other unusual circumstances, then a calibration constant is added such that the measured versus modeled values agree before any predictions can be made with the model.

Table 2-46 shows the representative modeled receiver locations, measured existing noise level, the modeled noise levels using traffic counts and measured vehicle speeds during noise measurements, and the K-factor at each of the monitoring locations. Three of the modeled noise levels deviate more than 3.0 dB from the measured noise levels; therefore, after refinements to the noise model and thorough re-evaluation, calibration constants, or “K” constants, have been applied to the noise model results for these two areas acoustically represented by measurement sites ST3, ST9, and ST11.

**Table 2-44 Summary of Short-Term Measurements**

| Position | Address | Area | Land Uses[b] | Activity Category and NAC | Meter Location | Measurement Dates | Start Time[c] | Measured $L_{eq}$, dBA |
|---|---|---|---|---|---|---|---|---|
| ST1 | 42655 Marmara Street, Indio | B | HOT | E (72) | Pool Area | 6/26/2018 | 10:05 AM | 63.8 |
| | | | | | | | 10:15 AM | 63.5 |
| ST2 | 42550 Jackson Street, Indio | C | RES | E (72) | Outdoor Dining Area | 1/14/2020 | 9:05 AM | 58.7 |
| | | | | | | | 9:15 AM | 57.6 |
| ST3 | Sidewalk, Avenue 43, Indio | D | -- | -- | Sidewalk | 6/27/2018 | 7:00 AM | 67.0 |
| | | | | | | | 7:10 AM | 65.9 |
| ST4 | 83510 Manzanita Avenue, Indio | D | SFR | B (67) | Side fence | 6/26/2018 | 10:05 AM | 63.1 |
| | | | | | | | 10:15 AM | 62.9 |
| ST5 | 82798 Crest Avenue, Indio | E | SFR | B (67) | Sidewalk | 1/14/2020 | 9:50 AM | 55.0 |
| | | | | | | | 10:00 AM | 53.5 |
| ST6 | 43200 Towne Street, Indio | F | REC | C (72) | Park Bench | 1/14/2020 | 9:50 AM | 51.0 |
| | | | | | | | 10:00 AM | 53.4 |
| ST7 | Empty Lot, Indio | G | UND | G (--) | Open Area | 6/27/2018 | 7:50 AM | 64.0 |
| | | | | | | | 8:00 AM | 63.5 |
| ST8 | 43486 Jackson Street, Indio | H | SFR | B (67) | Side yard | 6/27/2018 | 7:50 AM | 63.6 |
| | | | | | | | 8:00 AM | 62.9 |
| ST9 | 83172 E Circle Drive, Indio | H | SFR | B (67) | Sidewalk | 1/14/2020 | 9:05 AM | 50.5 |
| | | | | | | | 9:15 AM | 51.1 |
| ST10[d] | 82156 Crest Ave, Indio | E | SFR | B (67) | Backyard | 6/19/2018 | 11:00 AM | 45.6 |
| | | | | | | | 11:10 AM | 45.7 |
| ST11[d] | 82378 Orange Grove Avenue, Indio | E | SFR | B (67) | Backyard | 6/19/2018 | 11:00 AM | 48.1 |
| ST12[d] | Empty Lot, Indio | B | UND | G (--) | Open Area | 6/20/2018 | 12:00 PM | 65.8 |
| | | | | | | | 12:10 PM | 65.2 |

*Note:* Refer to Figure 2-10 for measurement locations and boundaries of each area.

a) ST - Short-Term Measurements

b) Land Use: SFR - single-family residence; HOT - hotel; REC - recreational; RES - restaurant; SCH - educational center; UND - undeveloped land

c) Short-term measured noise levels were measured for a total of 20 minutes.

d) Noise measurement and calibration data was obtained from the Interstate 10/Monroe Street Interchange Noise Study Report. Short-term measurement ST10 is the same as short-term measurement ST5, ST11 is the same as LT2, and ST12 is the same as ST7 in the Interstate 10/Monroe Street Interchange Noise Study Report (EA 0K730) (Parsons, October 2019).

**Table 2-45 Summary of Long-Term Monitoring at Location LT1**

| Hour Beginning | $L_{eq}$[h], dBA | Difference from Loudest Hour (dB) |
|---|---|---|
| 9:00 AM | 63.4 | -4.3 |
| 10:00 AM | 63.7 | -4.0 |
| 11:00 AM | 63.5 | -4.2 |
| 12:00 PM | 64.1 | -3.6 |
| 1:00 PM | 64.4 | -3.3 |
| 2:00 PM | 64.5 | -3.2 |
| 3:00 PM | 64.8 | -2.9 |
| 4:00 PM | 64.4 | -3.3 |
| 5:00 PM | 64.0 | -3.7 |
| 6:00 PM | 63.5 | -4.2 |
| 7:00 PM | 64.3 | -3.4 |
| 8:00 PM | 67.4 | -0.3 |
| **9:00 PM** | **67.7** | **0.0** |
| 10:00 PM | 67.1 | -0.6 |
| 11:00 PM | 67.4 | -0.3 |
| 12:00 AM | 65.8 | -1.9 |
| 1:00 AM | 65.9 | -1.8 |
| 2:00 AM | 64.8 | -2.9 |
| 3:00 AM | 63.8 | -3.9 |
| 4:00 AM | 65.1 | -2.6 |
| 5:00 AM | 66.4 | -1.3 |
| 6:00 AM | 66.9 | -0.8 |
| 7:00 AM | 66.2 | -1.5 |
| 8:00 AM | 63.9 | -3.8 |
| 9:00 AM | 63.8 | -3.9 |
| Note: Noisiest hour noise level is bolded. | | |

**Table 2-46 Comparison of Measured to Predicted Sound Levels in the TNM Model**

| Site | Measured Noise Level ($L_{eq}$ dBA) | Modeled Noise Level ($L_{eq}$ dBA) | Difference (Measured minus Modeled)[b] | Average Difference Difference Divided by 2 | K-factors |
|---|---|---|---|---|---|
| ST1 | 63.8 | 62.1 | 1.7 | 1.7 | -- |
| | 63.5 | 61.8 | 1.7 | | |
| ST2 | 58.7 | 55.7 | 3 | 2.1 | -- |
| | 57.6 | 56.4 | 1.2 | | |
| ST3 | 67 | 63.3 | 3.7 | 3.8 | +3.8 |
| | 65.9 | 62 | 3.9 | | |
| ST4 | 63.1 | 65 | -1.9 | -1.9 | -- |
| | 62.9 | 64.7 | -1.8 | | |
| ST5 | 55 | 52.8 | 2.2 | 0.9 | -- |
| | 53.5 | 54 | -0.5 | | |
| ST-6 | 51 | 51.5 | -0.5 | 0.1 | -- |
| | 53.4 | 52.6 | 0.8 | | |
| ST7 | 64 | 63 | 1 | 1.1 | -- |
| | 63.5 | 62.4 | 1.1 | | |
| ST8 | 63.6 | 64.2 | -0.6 | -0.8 | -- |
| | 62.9 | 63.8 | -0.9 | | |
| ST9 | 50.5 | 54.8 | -4.3 | -3.9 | -3.9 |
| | 51.1 | 54.5 | -3.4 | | |
| ST10[a] | 45.6 | 48 | -2.4 | -- | -- |
| ST11[a] | 48.1 | 51.8 | -3.7 | -- | -3.7 |
| ST12[a] | 65.8 | 66.4 | -0.6 | -- | -- |

Notes:

[a] Noise measurement and calibration data was obtained from the Interstate 10/Monroe Street Interchange Noise Study Report. Short-term measurements ST-10, ST11 and ST12. are the same as short-term measurement ST5, LT2, and ST7, respectively in the Interstate 10/Monroe Street Interchange Noise Study Report, dated October 2019.

[b] The difference—calibration constant, K-constant, or K—is defined as measured noise level M minus calculated noise level C, or K = M – C. (Source: page 4-8 of the Caltrans TeNS Manual (September 2013).

Tables 2-47 and 2-48 summarize predicted traffic noise levels for both the existing and design year with project conditions for Build Alternative 2 and Build Alternative 4, respectively. Predicted design-year traffic noise levels with the project are compared to the existing conditions to identify any "substantial" traffic noise impacts under 23 CFR 772 and to indicate the direct effects of noise resulting from the project. As stated in the TeNS, modeling results are rounded to the nearest decibel before comparisons are made. In some cases, this can result in relative changes that may not appear intuitive. An example would be a comparison between sound levels of 64.4 and 64.5 dBA. The difference between these two values is 0.1 dB. However, after rounding, the difference is reported as 1 dB.

**Table 2-47 Predicted Future Noise Levels – Build Alternative 2**

| Receiver ID | Land Use[2] | Activity Category | Existing Noise Level Leq(h), dBA[1] | Design Year No-Build Noise Level Leq(h), dBA[1] | Design Year Build Noise Level Leq(h), dBA1 | Design Year No-Build Noise Level Minus Existing Conditions Leq(h), dBA | Design Year Build Noise Level Minus No-Build Conditions Leq(h), dBA | Impact Type[3] | Noise Impact Requiring Abatement Consideration |
|---|---|---|---|---|---|---|---|---|---|
| R1/ST12 | UND | G (--) | 67 | 69 | 72 | 2 | 3 | None | No |
| R2/ST1 | HOT | E (72) | 54 | 57 | 58 | 3 | 1 | None | No |
| R3/ST2 | RES | E (72) | 58 | 60 | 59 | 2 | -1 | None | No |
| R4/ST3 [K1] | --[4] | -- | 66 | 68 | 68 | 2 | 0 | -- | No |
| R5 [K1] | SFR | B (67) | 63 | 65 | 65 | 2 | 0 | None | No |
| R6 [K1] | SFR | B (67) | 63 | 65 | 65 | 2 | 0 | None | No |
| R7 [K1] | SFR | B (67) | 58 | 60 | 60 | 2 | 0 | None | No |
| R8 [K1] | SFR | B (67) | 57 | 59 | 59 | 2 | 0 | None | No |
| R9 | SFR | B (67) | 57 | 59 | 59 | 2 | 0 | None | No |
| R10 | SFR | B (67) | 62 | 65 | 65 | 3 | 0 | None | No |
| R11/ST4 | --[4] | -- | 64 | 67 | 66 | 3 | -1 | -- | No |
| R12 | SFR | B (67) | 51 | 53 | 53 | 2 | 0 | None | No |
| R13 | SFR | B (67) | 51 | 53 | 53 | 2 | 0 | None | No |
| R14 [K2] | SFR | B (67) | 48 | 50 | 50 | 2 | 0 | None | No |
| R15/ST11 [K2] | SFR | B (67) | 49 | 51 | 51 | 2 | 0 | None | No |
| R16 [K2] | SFR | B (67) | 49 | 51 | 51 | 2 | 0 | None | No |
| R17 [K2] | SFR | B (67) | 48 | 51 | 51 | 3 | 0 | None | No |
| R18 | SFR | B (67) | 52 | 54 | 54 | 2 | 0 | None | No |
| R19 | SFR | B (67) | 52 | 55 | 55 | 3 | 0 | None | No |
| R20 | SFR | B (67) | 52 | 55 | 54 | 3 | -1 | None | No |
| R21/ST5 | --[4] | -- | 52 | 55 | 55 | 3 | 0 | -- | No |
| R22.1/ST6 | REC | C (67) | 52 | 54 | 54 | 2 | 0 | None | No |
| R22.2 | REC | C (67) | 52 | 54 | 54 | 2 | 0 | None | No |
| R22.3 | REC | C (67) | 52 | 55 | 55 | 3 | 0 | None | No |
| R23.1 | REC | C (67) | 53 | 56 | 55 | 3 | -1 | None | No |
| R23.2 | REC | C (67) | 52 | 55 | 55 | 3 | 0 | None | No |
| R24 | REC | C (67) | 54 | 57 | 57 | 3 | 0 | None | No |
| R25.1 | SCH | C (67) | 55 | 57 | 57 | 2 | 0 | None | No |
| R25.2 | SCH | C (67) | 55 | 58 | 58 | 3 | 0 | None | No |
| R26-1 | SCH | C (67) | 55 | 57 | 58 | 2 | 1 | None | No |

**Table 2-47 Predicted Future Noise Levels – Build Alternative 2**

| Receiver ID | Land Use[2] | Activity Category | Existing Noise Level Leq(h), dBA[1] | Design Year No-Build Noise Level Leq(h), dBA[1] | Design Year Build Noise Level Leq(h), dBA1 | Design Year No-Build Noise Level Minus Existing Conditions Leq(h), dBA | Design Year Build Noise Level Minus No-Build Conditions Leq(h), dBA | Impact Type[3] | Noise Impact Requiring Abatement Consideration |
|---|---|---|---|---|---|---|---|---|---|
| R26-2[INT] | SCH | D (52) | 35 | 37 | 38 | 2 | 1 | None | No |
| R27 | SCH | C (67) | 56 | 58 | 58 | 2 | 0 | None | No |
| R28 | SFR | B (67) | 60 | 62 | 62 | 2 | 0 | None | No |
| R29/ST7 | UND | G (--) | 64 | 67 | 67 | 3 | 0 | None | No |
| R30 | SFR | B (67) | 53 | 56 | 56 | 3 | 0 | None | No |
| R31.1/ST8 | --[4] | -- | 64 | 67 | 67 | 3 | 0 | -- | No |
| R31.2 | SFR | B (67) | 59 | 62 | 62 | 3 | 0 | None | No |
| R32 [K3] | SFR | B (67) | 51 | 54 | 53 | 3 | -1 | None | No |
| R33 [K3] | SFR | B (67) | 52 | 54 | 53 | 2 | -1 | None | No |
| R34 [K3] | SFR | B (67) | 51 | 53 | 53 | 2 | 0 | None | No |
| R35.1/ST9 [K3] | --[4] | -- | 51 | 53 | 53 | 2 | 0 | -- | No |
| R35.2 [K3] | SFR | B (67) | 44 | 46 | 46 | 2 | 0 | None | No |
| R36 | SFR | B (67) | 55 | 57 | 57 | 2 | 0 | None | No |
| R37/ST10 | SFR | B (67) | 49 | 51 | 51 | 2 | 0 | None | No |
| R38 | HOT | E (72) | 55 | 57 | 58 | 2 | 1 | None | No |

Notes:
1) Leq(h) are A-weighted, peak hour noise levels in decibels.
2) Land Use: SFR - single-family residence; HOT - hotel; REC - recreational; RES - restaurant; SCH - educational center; UND - undeveloped land
3) S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
4) This noise measurement site was chosen for monitoring purposes and was not located at an outdoor use area; however, this site is representative of nearby outdoor use areas.
STxx - measurement site number.
Int - An assumed 20 dB reduction has been applied to exterior noise levels based on buildings having single-pane windows.
K1 - A calibration constant of +3.8 dB is applied for this receiver, based on noise model calibration results.
K2 - A calibration constant of -3.7 dB is applied for this receiver, based on noise model calibration results.
K3 - A calibration constant of -3.9 dB is applied for this receiver, based on noise model calibration results.

**Table 2-48 Predicted Future Noise Levels – Build Alternative 4**

| Receiver ID | Land Use[2] | Activity Category | Existing Noise Level Leq(h), dBA[1] | Design Year No-Build Noise Level Leq(h), dBA[1] | Design Year Build Noise Level Leq(h), dBA1 | Design Year No-Build Noise Level Minus Existing Conditions Leq(h), dBA | Design Year Build Noise Level Minus No-Build Conditions Leq(h), dBA | Impact Type[3] | Noise Impact Requiring Abatement Consideration |
|---|---|---|---|---|---|---|---|---|---|
| R1/ST12 | UND | G (--) | 67 | 69 | 72 | 2 | 3 | None | No |
| R2/ST1 | HOT | E (72) | 54 | 57 | 58 | 3 | 1 | None | No |
| R3/ST2 | RES | E (72) | 58 | 60 | 58 | 2 | -2 | None | No |
| R4/ST3 [K1] | --[4] | -- | 66 | 68 | 68 | 2 | 0 | -- | No |
| R5 [K1] | SFR | B (67) | 63 | 65 | 65 | 2 | 0 | None | No |
| R6 [K1] | SFR | B (67) | 63 | 65 | 65 | 2 | 0 | None | No |
| R7 [K1] | SFR | B (67) | 58 | 60 | 60 | 2 | 0 | None | No |
| R8 [K1] | SFR | B (67) | 57 | 59 | 59 | 2 | 0 | None | No |
| R9 | SFR | B (67) | 57 | 59 | 59 | 2 | 0 | None | No |
| R10 | SFR | B (67) | 62 | 65 | 64 | 3 | -1 | None | No |
| R11/ST4 | --[4] | -- | 64 | 67 | 66 | 3 | -1 | -- | No |
| R12 | SFR | B (67) | 51 | 53 | 53 | 2 | 0 | None | No |
| R13 | SFR | B (67) | 51 | 53 | 53 | 2 | 0 | None | No |
| R14 [K2] | SFR | B (67) | 48 | 50 | 50 | 2 | 0 | None | No |
| R15/ST11 [K2] | SFR | B (67) | 49 | 51 | 51 | 2 | 0 | None | No |
| R16 [K2] | SFR | B (67) | 49 | 51 | 51 | 2 | 0 | None | No |
| R17 [K2] | SFR | B (67) | 48 | 51 | 51 | 3 | 0 | None | No |
| R18 | SFR | B (67) | 52 | 54 | 54 | 2 | 0 | None | No |
| R19 | SFR | B (67) | 52 | 55 | 54 | 3 | -1 | None | No |
| R20 | SFR | B (67) | 52 | 55 | 54 | 3 | -1 | None | No |
| R21/ST5 | --[4] | -- | 52 | 55 | 54 | 3 | -1 | -- | No |
| R22.1/ST6 | REC | C (67) | 52 | 54 | 54 | 2 | 0 | None | No |
| R22.2 | REC | C (67) | 52 | 54 | 54 | 2 | 0 | None | No |
| R22.3 | REC | C (67) | 52 | 55 | 54 | 3 | -1 | None | No |
| R23.1 | REC | C (67) | 53 | 56 | 55 | 3 | -1 | None | No |
| R23.2 | REC | C (67) | 52 | 55 | 55 | 3 | 0 | None | No |
| R24 | REC | C (67) | 54 | 57 | 57 | 3 | 0 | None | No |
| R25.1 | SCH | C (67) | 55 | 57 | 58 | 2 | 1 | None | No |

**Table 2-48 Predicted Future Noise Levels – Build Alternative 4**

| Receiver ID | Land Use[2] | Activity Category | Existing Noise Level Leq(h), dBA[1] | Design Year No-Build Noise Level Leq(h), dBA[1] | Design Year Build Noise Level Leq(h), dBA1 | Design Year No-Build Noise Level Minus Existing Conditions Leq(h), dBA | Design Year Build Noise Level Minus No-Build Conditions Leq(h), dBA | Impact Type[3] | Noise Impact Requiring Abatement Consideration |
|---|---|---|---|---|---|---|---|---|---|
| R25.2 | SCH | C (67) | 55 | 58 | 58 | 3 | 0 | None | No |
| R26-1 | SCH | C (67) | 55 | 57 | 58 | 2 | 1 | None | No |
| R26-2[INT] | SCH | D (52) | 35 | 37 | 38 | 2 | 1 | None | No |
| R27 | SCH | C (67) | 56 | 58 | 58 | 2 | 0 | None | No |
| R28 | SFR | B (67) | 60 | 62 | 62 | 2 | 0 | None | No |
| R29/ST7 | UND | G (--) | 64 | 67 | 67 | 3 | 0 | None | No |
| R30 | SFR | B (67) | 53 | 56 | 56 | 3 | 0 | None | No |
| R31.1/ST8 | --[4] | -- | 64 | 67 | 67 | 3 | 0 | -- | No |
| R31.2 | SFR | B (67) | 59 | 62 | 61 | 3 | -1 | None | No |
| R32 [K3] | SFR | B (67) | 51 | 54 | 54 | 3 | 0 | None | No |
| R33 [K3] | SFR | B (67) | 52 | 54 | 54 | 2 | 0 | None | No |
| R34 [K3] | SFR | B (67) | 51 | 53 | 53 | 2 | 0 | None | No |
| R35.1/ST9 [K3] | --[4] | -- | 51 | 53 | 53 | 2 | 0 | -- | No |
| R35.2 [K3] | SFR | B (67) | 44 | 46 | 46 | 2 | 0 | None | No |
| R36 | SFR | B (67) | 55 | 57 | 57 | 2 | 0 | None | No |
| R37/ST10 | SFR | B (67) | 49 | 51 | 53 | 2 | 2 | None | No |
| R38 | HOT | E (72) | 55 | 57 | 59 | 2 | 2 | None | No |

Notes:

[1] Leq(h) are A-weighted, peak hour noise levels in decibels.

[2] Land Use: SFR - single-family residence; HOT - hotel; REC - recreational; RES - restaurant; SCH - educational center; UND - undeveloped land

[3] S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.

[4] This noise measurement site was chosen for monitoring purposes and was not located at an outdoor use area; however, this site is representative of nearby outdoor use areas.

STxx - measurement site number.

INT - An assumed 20 dB reduction has been applied to exterior noise levels based on buildings having single-pane windows.

K1 - A calibration constant of +3.8 dB is applied for this receiver, based on noise model calibration results.

K2 - A calibration constant of -3.7 dB is applied for this receiver, based on noise model calibration results.

K3 - A calibration constant of -3.9 dB is applied for this receiver, based on noise model calibration results.

### No-Build Alternative

Under the No-Build Alternative, no reconstruction or improvements would be made to the existing I-10/Jackson Street interchange other than routine maintenance. Design-Year No-Build noise levels are shown in Tables 2-47 and 2-48. As shown in both tables, no long-term noise impacts are anticipated.

### Build Alternative 2

Under this build alternative, the existing I-10/Jackson Street interchange would maintain the compact diamond configuration and reconstruct Jackson Street, I-10 bridge overcrossing, Whitewater River Bridge, and the I-10 on- and off-ramps. Jackson Street at the I-10 bridge crossing would be reconstructed from one lane to two lanes in each direction, and include two left-turn lanes at each ramp intersection for access to eastbound and westbound I-10 on-ramps. The existing Jackson Street bridge at the Whitewater River Bridge would be widened to increase the number of through lanes from one lane to two lanes in each direction. This alternative would include reconstruction and restriping of Jackson Street to transition the additional travel lanes to the existing lane configurations north and south of the interchange. The I-10 westbound (WB) and eastbound (EB) on-ramps would be widened to two lanes and transition to a single lane merging to I-10. Interchange off-ramps would be widened, realigned and restriped to accommodate additional turn lanes to Jackson Street. Auxiliary lanes would be constructed at the I-10 WB and EB ramps to enhance merging and diverging traffic to I-10.

The traffic noise modeling results in Table 2-47 indicate traffic noise levels within the boundaries of the project area are predicted to be in the range of 38 to 72 dBA Leq(h) in the design year under Build Alternative 2. The results also indicate that the increase in noise between existing conditions and the design year is predicted to range from 2 to 3 dB. None of the evaluated receivers would exceed the respective NACs, nor would the project result in a substantial increase in noise from existing conditions; therefore, no traffic noise impacts are predicted to occur.

### Build Alternative 4

Under this build alternative, the existing I-10/Jackson Street interchange would be reconstructed to a DDI configuration utilizing a twin-bridge layout spanning over the I-10 freeway and the Whitewater River. Two new parallel bridge structures over the Whitewater River and Jackson Street overcrossing would be constructed to accommodate two lanes, shoulders, and sidewalks. The existing bridges along Jackson Street will be evaluated as to whether it could accommodate two travel lanes and may be reconstructed. The crossover intersections would gradually transition traffic from the right side of the road to the left side of the road while providing free right- and left-turn movements to the I-10 on-ramps before crossing over back to the right-side of the road for through traffic. The DDI configuration requires two cross-over intersections with two-phase traffic signal operation within the interchange; inbound and outbound freeway traffic would cross one intersection compared to two intersections for the diamond interchange configuration. In addition, Alternative 4 would include reconstruction and restriping of Jackson Street to transition the additional travel lanes to the existing lane configurations north and south of the interchange. The I-10 westbound and eastbound on-ramps would be widened to two lanes and transition to a single lane merging to the I-10 freeway. Interchange off-ramps would be widened, realigned and restriped to accommodate additional turn lanes to Jackson Street. Auxiliary lanes would be constructed at the I-10 WB and eastbound EB ramps to enhance merging and diverging traffic to I-10.

The traffic noise modeling results in Table 2-48 indicate traffic noise levels within the boundaries of the project area are predicted to be in the range of 38 to 72 dBA Leq(h) in the design year under Alternative 4. The results also indicate that the increase in noise between existing conditions and the design year is predicted to range from 2 to 3 dB. None of the evaluated receivers would exceed the respective NACs, nor would the project result in a substantial increase in noise from existing conditions; therefore, no traffic noise impacts are predicted to occur.

### 2.2.7.4 Avoidance, Minimization, and/or Mitigation Measures

#### *No-Build Alternative*

Under the No-Build Alternative, no construction activities would occur; therefore, there would be no short-term noise impacts.

#### *Build Alternatives 2 and 4*

During the construction phases within the project area, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Table 2-49 summarizes noise levels produced by construction equipment commonly used on roadway construction projects. As indicated, equipment involved in construction is expected to generate noise levels ranging from 80 to 89 dBA at a distance of 50 feet. Noise produced by construction equipment would be reduced over distance at a rate of approximately 6 dB per doubling of distance.

**Table 2-49 Construction Equipment Noise**

| Equipment | Maximum Noise Level (dBA at 50 feet) |
|---|---|
| Scrapers | 89 |
| Bulldozers | 85 |
| Heavy Trucks | 88 |
| Backhoe | 80 |
| Pneumatic Tools | 85 |
| Concrete Pump | 82 |
| Source: Federal Transit Administration, 2006. See also: http://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm | |

No adverse noise impacts from construction are anticipated because construction would be conducted in accordance with Caltrans Standard Specifications Section 14.8-02. Construction noise would be short-term, intermittent, and overshadowed by local traffic noise.

Construction will be conducted in accordance with Section 14-8.02, "Noise Control," of the Department's 2018 SSP (refer to measure **NOI-3** below). In addition, any local noise ordinances that are more restrictive than the requirements stated in SSP-14-8.02 will be followed during construction. SSP-14-8.02 will be edited specifically for this project during the PS&E phase.

Construction noise would be short-term, intermittent, and overshadowed by local traffic noise. Furthermore, implementation of the measures listed below would further minimize the temporary noise impacts from construction.

The project would not result in any operational noise impacts, and therefore abatement measures are not necessary for operational noise. The contractor will adhere to the following minimization measures.

**NOI-1:** To minimize potential construction noise effects, the construction contractor will adhere to BMPs to minimize construction noise levels, including the following:

a) All equipment will have sound-control devices no less effective than those provided on the original equipment. Each internal combustion engine used for any purpose on the job or related to the job will be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine should be operated on the job site without an appropriate muffler.

b) Construction methods or equipment that will provide the lowest level of noise impact (e.g., avoid impact pile driving near residences and consider alternative methods that are also suitable for the soil condition) should be used to the greatest possible extent.

c) Idling equipment will be turned off.

d) Truck loading, unloading, and hauling operations will be restricted so that noise and vibration are kept to a minimum through residential neighborhoods to the greatest possible extent.

e) Temporary noise barriers will be used and relocated, as needed, to protect sensitive receivers against excessive noise from construction activities involving large equipment and by small items such as compressors, generators, pneumatic tools, and jackhammers. Noise barriers can be made of heavy plywood, moveable insulated sound blankets, or other best available control techniques.

f) Newer equipment with improved noise muffling will be used, and all equipment items will have the manufacturer recommended noise-abatement measures (e.g., mufflers, engine covers, and engine vibration isolators) intact and operational. Newer equipment will generally be quieter in operation than older equipment. All construction equipment will be inspected at periodic intervals to ensure proper maintenance and presence of noise-control devices (e.g., mufflers and shrouding).

g) Construction activities will be minimized in residential areas during evening, nighttime, weekend, and holiday periods. Noise impacts are typically minimized when construction activities are performed during daytime hours; however, nighttime construction may be desirable (e.g., in commercial areas where businesses may be disrupted during daytime hours) or necessary to avoid major traffic disruption. Coordination with the City of Indio will occur before construction can be performed in noise-sensitive areas. Per Section 95C.09 of the City of Indio's Municipal Code, construction noise is exempted from the Noise Control provisions of the City of Indio's Municipal Code (City of Indio 2018a).

h) Construction lay-down or staging areas will be selected in industrially zoned districts. If industrially zoned areas are not available, commercially zoned areas may be used, or locations that are at least 100 feet from any noise-sensitive land use (e.g., residences).

**NOI-2:** It is possible that certain construction activities could cause intermittent localized concern from vibration in the project area. Processes such as earth moving with bulldozers, the use of vibratory compaction rollers, impact pile driving, demolitions, or pavement braking may cause construction-related vibration impacts such as human annoyance or, in some cases, building damage. There are cases where it may be necessary to use this type of equipment in proximity to residential buildings. The following are some procedures that will be used to minimize the potential impacts from construction vibration:

a) Restrict the hours of vibration-intensive equipment or activities such as vibratory rollers so that impacts on residents are minimal (e.g., weekdays during daytime hours only when as many residents as possible are away from home).

b) For a building within 50 feet of a construction vibration source where damage to that structure due to vibration is possible, provide the owner with a preconstruction building inspection to document the preconstruction condition of that structure.

c) Conduct vibration monitoring during vibration-intensive activities.

**NOI-3:** The project will comply with sound control provisions as included in Section 14- 8.02, "Noise Control," of the Department's Standard Specifications and Special Provisions. The contractor will not exceed 86 dBA at 50 feet from the job site from 9:00 p.m. to 6:00 a.m.

## 2.2.8 Energy

### 2.2.8.1 Regulatory Setting

National Environmental Policy Act (NEPA) (42 United States Code [USC] Part 4332) requires the identification of all potentially significant impacts to the environment, including energy impacts.

California Environmental Quality (CEQA) Guidelines Section 15126.2(b) and Appendix F, Energy Conservation, require an analysis of a project's energy use to determine if the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources.

### 2.2.8.2 Affected Environment

The primary source used in the preparation of this section is the *Energy Analysis Report for the I-10/Jackson Street Interchange Improvement Project*, dated February 2020 (ESA 2020).

#### *Existing Project Area Conditions*

The project area includes lighting along the interchange, but does not currently include any transportation management systems elements. Additional details regarding existing conditions in the project area that affect energy usage, such as existing traffic conditions, vehicle mix, and pavement surfaces, are included below.

#### *Existing Traffic Conditions*

Existing (baseline) conditions traffic data used for this energy analysis was obtained from the project's traffic study, Interstate 10/Jackson Street Interchange Traffic Operations Report (TOR, Fehr & Peers, 2019). Existing traffic volumes were collected in 2018 from various sources including: Caltrans' Freeway Performance Measurement System (PeMS), and field data. The intersection turning movement counts were collected from the field in February 2018 to account for increased travel in the Coachella Valley region during the winter months. Traffic volumes on the freeway mainline were obtained from PeMS and used the most recent available data. In addition, Average Daily Traffic (ADT) and classification counts were collected on the Jackson Street overcrossing to determine vehicle fleet mix and truck percentages along the corridor. Traffic volume and vehicle classification for mainline I-10 was also obtained from Caltrans' PeMS and the Department's Census Database. Table 2-50 shows the existing daily vehicle-miles traveled (VMT), annual VMT, and vehicle breakdown at the project site.

**Table 2-50 Existing Daily VMT, Annual VMT, and Vehicle Mix**

| Scenario | Daily VMT (mi) | Annual VMT (mi) | Vehicle Mix | | |
|---|---|---|---|---|---|
| | | | Trucks 1 | Trucks 2 | Non-Trucks |
| Existing (2018) | 829, 870 | 302,902,55 | 4.2% | 27.0% | 68.8% |

Notes:
mi = miles
Trucks1= EMFAC2014 categories LHDT1/LHDT2
Trucks 2= EMFAC20014 categories HHDT/MHD
Non-Trucks = EMFAC2014 categories LDA/LDT1/LDT2/MCY/MDV/MH/SBUS/UBUS/OBUS
Source: Fehr & Peers, 2018

#### *Existing Pavement Conditions*

Existing pavement conditions are fair to good with some aging and cracking roadways along Jackson Street approaching the interchange. The interchange and overpass pavement condition is good with not

many visible signs of serious wear. On- and off-ramps are in good condition and well-paved with clear lane markers.

### *Energy Resources*

California contains abundant sources of renewable and non-renewable energy. The primary energy resources within California are described in the following sections.

#### *Non-Renewable Energy*

Non-renewable energy resources include petroleum, natural gas, and coal. These energy resources are considered fossil fuels because they were formed when large quantities of dead organisms, usually zooplankton (microscopic organisms drifting in water bodies), algae, and other vegetation, were buried beneath sedimentary rock and exposed to intense heat and pressure over thousands of years. Fossil fuels are considered non-renewable resources because they cannot be replenished on a meaningful human timeframe. These resources will eventually run out because they cannot be renewed at a sufficient rate for sustainable economic extraction.

#### *Renewable Energy*

Renewable energy is generally defined as energy that comes from resources that are naturally replenished on a human timescale. Sources of renewable energy include the wind, sun, waves, and the heat of the Earth (i.e., geothermal heat). In addition, organic matter (also referred to as biomass), such as crops, animal waste, and municipal solid waste, can serve as sources of renewable energy, called biofuels. Renewable energy resources are continually replenished through natural processes.

## 2.2.8.3 Environmental Consequences

The energy analysis is based on the methodology described in the *Caltrans Standard Environmental Reference*, Volume 1, Chapter 13 – Energy, as well as guidance provided by the Department regarding CEQA Updates, effective April 27, 2019. The energy analysis addresses both direct and indirect energy consumption, which are defined as follows:

### *Direct Energy*

In the context of transportation, direct energy involves all energy consumed by vehicle propulsion (e.g., automobiles, trains, airplanes). This energy consumption is a function of traffic characteristics, such as VMT, speed, vehicle mix, and thermal value of fuel being used. Additionally, direct energy also includes the one-time energy expenditure involved in construction of the project. Therefore, analysis of direct energy use includes the following factors:

- **Direct Energy (Mobile Sources):** The energy consumed by vehicle propulsion within the facility during operation of the project.
- **Direct Energy (Construction):** The energy consumed by construction vehicles and equipment during construction of the project.
- **Indirect Energy:** Indirect energy includes maintenance activities that would result in long-term indirect energy consumption by equipment required to operate and maintain the roadway.

Direct energy consumption from mobile sources associated with the project was estimated using traffic model forecasts for VMT from the *Traffic Operations Analysis Report* (California Department of Transportation 2019a) and the *EMFAC2017* air quality model, which provides estimated fuel consumption rates for baseline year 2018, opening year 2025, and design year 2045. Estimated energy consumption in 2045 is considered to be the most conservative (i.e., highest) because population and employment are projected to be higher in that year than in any earlier year. Therefore, the energy

consumption of the proposed project is compared to the projected 2045 baseline conditions, which assumes that limited baseline transportation improvements have occurred, and that the proposed project improvements were not implemented. The EMFAC2017 model incorporates energy and conservation measures that were adopted as of December 2017, such as the federal Phase 2 Greenhouse Gas Standards, but it does not consider policies that are not yet adopted. EMFAC2017 uses average values of energy consumption for various vehicle types based on available data, and using the number of vehicle miles of travel, it is possible to calculate the energy consumption per vehicle miles of travel, and ultimately per day or per year.

To assess indirect energy use from the maintenance of the project facility, and the maintenance of vehicles using the facility, energy use factors were obtained from the Department's Energy and Transportation Systems Handbook, Appendix C. The I-10/Jackson Street interchange resource study area for the potential energy impacts is a subarea of the overall SCAG region and was defined by comparing year 2040 Regional Travel Demand Model forecasts of daily traffic volumes using the highway network under the No-Build Alternative (Alternative 1) and one set of traffic volumes for future year scenarios.

The 2016–2040 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals, with a specific goal of achieving an 8 percent reduction in passenger vehicle GHG emissions on a per capita basis by 2020, 18 percent reduction by 2035, and 21 percent reduction by 2040 compared to the 2005 level. Although the RTP/SCS is not technically an energy efficiency plan, consistency with the RTP/SCS has energy implications, including the reduction of VMT which reduces GHG emissions and has the co-benefit of reducing fossil fuel consumption from travel to and from the Project Site. Since the Project would not result in an increase in trips or fuel usage over the baseline, it would be consistent with SCAG's RTP/SCS.

Implementation of the project would affect the use of energy resources in the study area during short-term construction and long-term operations.

Project construction would also include various resource conservation measures, including the use of reclaimed water and energy-efficient lighting, such as light-emitting diode (LED) traffic signals.

Project operations would include implementation of intelligent transportation systems to help manage the efficiency of the existing highway system. Intelligent transportation systems are commonly referred to as electronics, communications, or information processing used singly or in combination to improve the efficiency or safety of a surface transportation system.

The analysis of project impacts is at the regional level and is, therefore, by its nature, an analysis of cumulative impacts. The following analysis discusses the direct and indirect energy use impacts for each of the project alternatives.

### *Temporary*

#### *No-Build Alternative*

The No-Build Alternative would not require construction in the project area as a result of the project. Therefore, energy consumption for project construction activities would not be required.

#### *Build Alternatives 2 and 4*

##### *Direct Energy (Construction)*

During construction of the project, energy would be consumed in the form of petroleum-based fuels associated with the use of off-road construction vehicles and equipment on the project site, construction

workers traveling to and from the project site, and water and haul truck trips (e.g., hauling of demolition material to off-site reuse and disposal facilities). Electricity and natural gas would not be used during project construction. Table 2-51 provides a summary of the annual gasoline fuel and diesel fuel estimated to be consumed during project construction.

**Table 2-51 Summary of Annual Fuel Estimated to Be Consumed during Project Construction**

| Energy Type | Annual Average Quantity During Construction | |
|---|---|---|
| **Gasoline** | | |
| On-Road Construction Vehicle Trips | 13,447 | gallons |
| Off-Road Construction Equipment | 0 | gallons |
| **Total Gasoline** | **13,447** | gallons |
| **Diesel** | | |
| On-Road Construction Vehicle Trips | 32,252 | gallons |
| Off-Road Construction Equipment | 178,349 | gallons |
| **Total Diesel** | **210,600** | gallons |

Notes:
Detailed calculations are provided in Appendix B of the energy report prepared for this project.
Source: ESA, 2020; EMFAC, 2014; OFFROAD, 2017

Table 2-51 reports the amount of petroleum-based transportation energy that could potentially be consumed during project construction based on the conservative set of assumptions. During project construction, on- and off-road vehicles would consume an estimated annual average of approximately 13,447 gallons of gasoline and 210,600 gallons of diesel.

Transportation fuels (gasoline and diesel) are produced from crude oil, which can be domestic or imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of worldwide consumption (BP Global, 2018). The project would comply with CAFE fuel economy standards, which would result in more efficient use of transportation fuels (lower consumption) during project construction. Project-related vehicle trips would also comply with Pavley and Low Carbon Fuel Standards which are designed to reduce vehicle GHG emissions, but would also result in fuel savings in addition to compliance with CAFE standards.

Construction of the project would use 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 CCR Title 13, and fuel requirements for stationary equipment in accordance with section 93115 (concerning Airborne Toxic Control Measures) in CCR Title 17. The project would also comply with State 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 the use of more fuel-efficient engines.

Based on the analysis above, construction would utilize energy only necessary for on-site activities, construction worker travel, and to transport construction materials and demolition debris. Idling restrictions and the use of cleaner, energy-efficient equipment would result in less fuel combustion and energy consumption, thus minimizing the project construction-related energy use. Therefore, construction of the project would not result in the wasteful, inefficient, and unnecessary consumption of energy. The impact would be less than significant.

### *Permanent*

#### *No-Build Alternative*

Under the No-Build Alternative, the increase in forecasted traffic volumes would result in worsening of traffic congestion, slower traffic speeds, and increases in traffic delays. Without the improvements proposed by the Build Alternatives, congested traffic conditions and limitations on mobility would be more prevalent throughout the study area. These conditions would contribute to inefficient energy consumption, as vehicles would use extra fuel while idling in stop-and-go traffic or moving at slow speeds through congested roadways.

#### *Build Alternatives 2 and 4*

##### *Direct Energy (Operation)*

Operation of the project would result in a slight increase in electricity from traffic signals, ramp metering, and streetlights, but would not result in an increase in natural gas, therefore, energy consumption from natural gas was excluded from the analysis. Table 2-52 summarizes the estimated electricity consumption from Existing, No-Build, Build Alternative 2, and Build Alternative 4 for the buildout year (2025) and future year (2045). The Build Alternatives include ramp metering that is not a part of the existing or No-Build designs. Further, the Build Alternatives use more efficient streetlighting than the existing and No-Build scenarios.

**Table 2-52 Operational Electricity Consumption by Build Scenario**

| Scenario | Annual Electricity Use (kWh) | % Change from No-Build |
|---|---|---|
| Existing (2018) | 20,488 | 0% |
| No-Build (2025) | 20,488 | - |
| Build Alternative 2 (2025) | 22,629 | 10% |
| Build Alternative 4 (2025) | 22,629 | 10% |
| No-Build (2045) | 20,488 | - |
| Build Alternative 2 (2045) | 22,629 | 10% |
| Build Alternative 4 (2045) | 22,629 | 10% |

Notes:
Detailed calculations are provided in Appendix B of the energy report prepared for this project.
Source: ESA, 2020; HNTB, 2020

As shown in Table 2-52, both Build Alternatives would result in slightly higher electricity use than the existing conditions and the No-Build scenario. This is primarily due to the addition of ramp metering and from increasing the total number of streetlights from 17 to 39 fixtures. However, the Build Alternative streetlights would use more efficient 85-watt bulbs compared to the existing and No-Build scenarios which use a mixture of 250-watt and 85-watt bulbs. Overall, the increase in electricity consumption is negligible and would contribute to greater energy efficiency through use of more efficient lighting and fuel efficiency with the inclusion of ramp metering to monitor the flow of traffic and limit the idling time of mobile sources.

During operation, vehicle use associated with use of the interchange would result in the consumption of petroleum-based fuels related to vehicular travel to and from the project site. Annual trips for the project were estimated using trip rates provided in Appendix A of the *Energy Analysis Report for the I-10/Jackson Street Interchange Improvement Project*, dated February 2020 (ESA 2020). Note that the VMT for the No-Build, Build Alternative 2, and Build Alternative 4 scenarios are the same for each year analyzed, therefore the fuel consumption is the same for each scenario. Table 2-53 estimates the gasoline

and diesel fuel consumption from vehicles using the interchange in the existing, buildout (2025), and future (2045) scenarios.

As reported in Table 2-53, the project would not result in a net increase of fossil fuel usage for Build Alternative 2 and Build Alternative 4 when compared to the No-Build scenario for both buildout (2025) and future (2045) years. As stated earlier, the project is an infrastructure improvement that would not attract an increase in vehicular volume and is only designed to streamline entrance and exit from the freeway. The increased efficiency of the interchange may also result in less idling time that would further reduce fuel consumption for the Build Alternatives. Further, since the project would not result in an increase in trips or fuel usage over the baseline, it would be consistent with SCAG's RTP/SCS.

**Table 2-53 Operational Fuel Consumption by Build Scenario**

| Scenario | Annual VMT | Vehicle Mix | | | Fuel Use (Gallons) | |
|---|---|---|---|---|---|---|
| | | Trucks 1 | Trucks 2 | Non-Trucks | Gasoline | Diesel |
| Existing (2018) | 302,902,550 | 4.2% | 27.0% | 68.8% | 9,491,241 | 12,471,848 |
| No-Build (2025) | 344,045,350 | 4.2% | 27.0% | 68.8% | 8,630,054 | 13,240,062 |
| Build Alternative 2 (2025) | 344,045,350 | 4.2% | 27.0% | 68.8% | 8,630,054 | 13,240,062 |
| Build Alternative 4 (2025) | 344,045,350 | 4.2% | 27.0% | 68.8% | 8,630,054 | 13,240,062 |
| No-Build (2045) | 461,593,600 | 4.2% | 27.0% | 68.8% | 11,473,206 | 17,820,063 |
| Build Alternative 2 (2045) | 461,593,600 | 4.2% | 27.0% | 68.8% | 11,473,206 | 17,820,063 |
| Build Alternative 4 (2045) | 461,593,600 | 4.2% | 27.0% | 68.8% | 11,473,206 | 17,820,063 |

Notes:
Detailed calculations are provided in Appendix B of the energy report prepared for this project.
Source: ESA, 2020; EMFAC, 2014; Fehr & Peers, 2018

The project would also promote and facilitate: (1) connectivity between communities and businesses and (2) pedestrian, bicycle and low-speed electric vehicle (LSEV) use. While not quantified, the improvement in bicycle paths and pedestrian walkways and to LSEV access could result in a decrease in non-renewable fuel sources and would result in more efficient use of energy resources.

For the reasons described above, the project would not increase operational transportation fuel demand consistent with and not in conflict with State, regional, and City goals. Therefore, operation of the project would not result in the wasteful, inefficient, and unnecessary consumption of energy under either scenario.

### *Indirect Energy (Operation)*

Maintenance of the project would include general upkeep of the traffic signals, street sweeping, ramp metering, street lighting, and pavement. As stated above, the analysis assumes that general maintenance would require two workers, twice a month. Additionally, the analysis assumes repaving/roadway maintenance would occur 5 days per year and require pavers, paving equipment, rollers, signal boards, one haul truck, and six workers.

The analysis assumes that general maintenance for the Build Alternatives would require four workers, twice a month. Additionally, the analysis assumes repaving/roadway maintenance would occur ten days per year and require pavers, paving equipment, rollers, signal boards, one haul truck, and twelve workers. Table 2-54 summarizes the fuel consumption associated with maintenance for each scenario.

**Table 2-54 Maintenance Fuel Consumption by Build Scenario**

| Scenario | Fuel Use | |
|---|---|---|
| | Gasoline | Diesel |
| Existing (2018) | 129 | 369 |
| No-Build (2025) | 129 | 369 |
| Build Alternative 2 (2025) | 257 | 693 |
| Build Alternative 4 (2025) | 257 | 693 |
| No-Build (2045) | 129 | 369 |
| Build Alternative 2 (2045) | 257 | 693 |
| Build Alternative 4 (2045) | 257 | 693 |

Notes:
Detailed calculations are provided in Appendix B of the energy report prepared for this project.
Source: ESA, 2020; EMFAC, 2014; OFFROAD, 2017

As shown in Table 2-54, maintenance activities would increase over the No-Build Alternative under both Build Alternative 2 and Build Alternative 4. The increase in fuel use is due to the increase in paved surface area from adding new lanes and widening shoulders. Like construction, the project would comply with CAFE fuel economy standards, which would result in more efficient use of transportation fuels (lower consumption) during project maintenance. Project-related vehicle trips would also comply with Pavley and Low Carbon Fuel Standards which are designed to reduce vehicle GHG emissions, but would also result in fuel savings in addition to compliance with CAFE standards. Therefore, maintenance of the project would not result in wasteful, inefficient, and unnecessary consumption of energy, and the impact would be less than significant in nature.

### 2.2.8.4 Avoidance, Minimization, and/or Mitigation Measures

All project components would be designed in accordance with standard engineering practices and Department standard specifications. No avoidance, minimization, and/or mitigation measures are required because the project would not result in any substantial adverse effects under NEPA or significant impacts under CEQA.

# 2.3 Biological Environment

## 2.3.1 Natural Communities

This section discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat under the federal Endangered Species Act are discussed below in Section 2.3.5, Threatened and Endangered Species. Wetlands and other waters are discussed in Section 2.3.2, below.

### 2.3.1.1 Affected Environment

Information used in this section is based on the *I-10/Jackson Street Interchange Improvement Project Natural Environment Study/Minimal Impacts* (NES/MI), dated July 2019 (ESA, 2019).

The biological study area (BSA) for the project includes all areas that could potentially be impacted by the project and includes a 500-foot buffer to accommodate any changes to the project footprint that may occur during project design (refer to Figure 2-15).

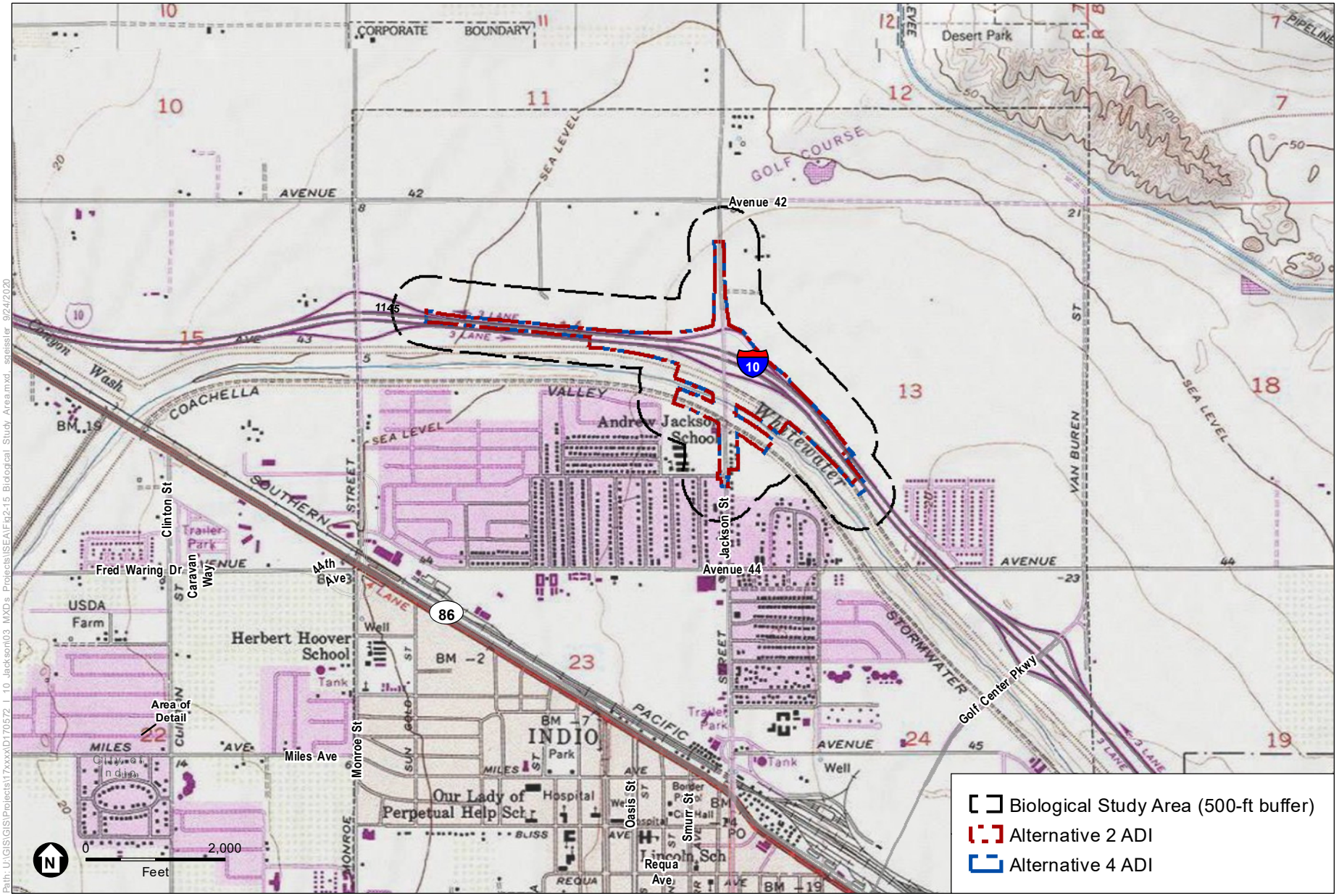
#### *Coachella Valley Multiple Species Habitat Conservation Plan*

The CVMSHCP (developed in 19981998 by the CVMCCVMC) 20192019 Annual Report provides a regional vision for balanced growth that will help conserve the Coachella Valley's natural heritage while also building a strong economy that is vital to the future of the Coachella Valley. The Plan was developed in tandem with the Coachella Valley region of the California Desert Conservation Area (CDCA) to provide a framework for implementation actions supporting landscape-level approaches to conservation. The CVMSHCP protects 240,000 acres of open space and 27 species. The goal of this plan is to enhance infrastructure, without environmental conflicts, and offer opportunities for recreation, tourism, and job creation, while insuring the survival of endangered species. The Department is a signatory to this plan and certain specific projects have been covered by the plan. The project is located outside of a CVMSHCP Conservation Area within the City of Indio. The project is a covered regional project per the CVMSHCP Section 7 in the City of Indio, and the City as a signatory is mitigating for covered activities through land acquisition and monitoring and management obligations as described in the CVMSHCP Section 6.6.1.

#### *Habitat Assessment/Study Methods*

Prior to the completion of the biological study, the impact area was reviewed and compared to the topographic map and aerial photographs. The BSA encompassed the proposed impact area (project boundary) and included a 500-foot buffer around the project boundary.

Plant and wildlife special-status species lists were derived from a search of the California Natural Diversity Data Base (CNDDB), and California Native Plant Society (CNPS) database searches of Indio, Myoma, West Berdoo Canyon, Rockhouse Canyon, La Quinta, Thermal Canyon, Martinez Mountain, Valerie and Mecca U.S. Geological Survey 7.5-minute quadrangles. In addition, the U.S. Fish and Wildlife Service (USFWS) Information, Planning, and Consultation System database was consulted. The primary sources of available literature referenced for the project include the following:




SOURCE: Riverside County GIS; USGS Indio 7.5 minute quadrangle

I-10 / Jackson Street Interchange Project

**Figure 2-15**

Biological Study Area

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- USFWS Online Inventory of Federally Threatened and Endangered Species (USFWS 2018).
- CNDDB Rare Find online program (CDFW 2018).
- CNPS Online Inventory of Rare and Endangered Plants (CNPS 2018).
- Coachella Valley Multiple Species Habitat Conservation Plan (CVAG 2016).
- National Wetland Inventory (NWI) (USFWS 2018) was queried to identify potential jurisdictional waters within the BSA.
- Google Earth Historical Aerial Imagery, 1995-2018 (Google Earth 2018).

A focused biological survey to determine if Burrowing Owl and/or their habitats were present in the BSA were conducted May 2, May 18, June 7, and July 5, 2018. A delineation of wetlands and other waters of the U.S. was also conducted on May 2 and November 6, 2018.

Plant communities identified on aerial photographs during the literature review were verified in the field by walking meandering transects through the plant communities and along boundaries between plant communities within the BSA. The plant communities identified were evaluated for their potential to support special-status plant and animal species. In addition, field staff identified any jurisdictional features, riparian/riverine habitat, and any natural corridors and linkages that may support the movement of wildlife through the area.

Special attention was given to special-status habitats and/or undeveloped areas, which have higher potential to support special-status plant and animal species, such as those identified during the database search. All plant and animal species observed, as well as dominant plant species within each plant community, were recorded in a standard field notebook. Wildlife detections were made through observation of scat, trails, tracks, burrows, nests, and/or visual and aural observation. In addition, site characteristics such as soil condition, topography, hydrology, anthropogenic disturbances, indicator species, condition of on-site plant communities, and the presence of potential jurisdictional drainage and/or wetland features were noted.

### *Biological Study Area*

As mentioned earlier, the BSA identified for the project includes the project footprint and a 500-foot buffer (refer to Figure 2-14). The BSA falls within the Indio United States Geological Survey (USGS) 7.5-minute topographic quadrangle. The approximately 25-acre project site is located along Jackson Street, from approximately 560 feet south of Showcase Parkway to approximately 750 feet south of Kenner Avenue and along the I-10 eastbound (EB) and westbound (WB) entrance and exit ramps at the I-10/Jackson Street interchange.

The BSA is surrounded by disturbed and developed land uses. The region primarily contains flat land dominated by developed areas including residential, commercial, industrial, and agricultural areas. Undeveloped land within the City is limited to areas along the City's northern boundary as well as infill parcels that contain disturbed areas. Within the BSA, developed lands containing paved roads and residential and commercial development as well as disturbed areas containing maintained fields constitute the majority of the BSA. The Coachella Valley Stormwater Channel (CVSWC), also called the Whitewater River, flows in a west to southeast direction, and occurs along the southern portion of the BSA.

### *Plant Communities*

The BSA contains primarily disturbed and developed land cover types as well as disturbed desert wash. Although a variety of native and non-native vegetation occur within the BSA, typical vegetation communities found within the region are absent from the BSA, including communities classified by *A Manual of California Vegetation, Second Edition* (Sawyer et al. 2009). The Whitewater River is a desert wash, but lacks vegetation communities classified under *A Manual of California Vegetation,* and is categorized as disturbed desert wash due to ongoing maintenance that occurs every 1 to 2 years preventing vegetation communities from establishing.

Based on review of the NRCS Web Soil Survey (NRCS 2018), the study area includes one suborder and two soil series, identified as Gilman Series, Fluvents, and Indio Series. None of the soil series identified in the BSA are listed in the Hydric Soils List of California (NRCS 2016).

#### *Desert Wash (Disturbed) (30.39 Acres)*

Disturbed desert wash is limited to areas within the Whitewater River, which is located at the bottom of the CVSWC. Bare ground covers approximately 30 percent to 90 percent of the canal. The remaining area is covered with a mix of native and non-native vegetative species with an overall lack of dominant species. Plant species observed included Jimson weed (*Datura wrightii*), castor bean (*Ricinus communis*), Bermuda grass, cocklebur (*Xanthium strumarium*), saltcedar (*Tamarix ramosissima*) and arrowweed (*Pluchea sericea*).

#### *Disturbed (106.28 Acres)*

Disturbed areas consist of road shoulders, maintained areas and fields. Bare ground covers approximately 30 percent to 90 percent of the disturbed areas, depending on their location, with greater amounts of bare ground occurring along I-10. The remaining area is covered with a mix of native and non-native vegetative species with an overall lack of dominant species. Plant species observed included four-wing saltbush (*Atriplex canescens*), athel (*Tamarix aphylla*) and shortpod mustard (*Hirschfeldia incana*).

Evidence of vegetation removal, especially within areas abutting the I-10 boundary fence, were observed throughout the BSA. Disturbed areas provide limited habitat value for wildlife. Project activities include modification or disturbance to disturbed areas within the BSA and direct impacts are expected, including earthmoving activities during construction.

#### *Developed (160.54 Acres)*

Developed areas encompass approximately 160.54 acres of the BSA. Developed areas within the BSA generally consist of paved, impervious surfaces and infrastructure including roadways (e.g., I-10, Jackson Street), residential properties, and commercial developments. Vegetation observed in the developed areas in the BSA includes a variety of ornamental vegetation commonly used in the region, including date palm (*Phoenix dactylifera*) and Mexican palo verde (*Parkinsonia aculeate*). A majority of vegetation within the developed areas is irrigated, as evidenced by an expansive irrigation system. Developed areas provide limited habitat value for wildlife. Project activities include modification or disturbance to developed areas within the BSA and direct impacts are expected.

Habitats are considered to be of special concern based on: (1) federal, state, or local laws regulating their development; (2) limited distributions; and/or (3) the habitat requirements of special-status plants or animals occurring on site. Although a variety of native and non-native plants occur within the BSA, natural communities, both common and sensitive, are absent from the BSA.

### *Habitat Connectivity*

Habitat linkages provide links between larger undeveloped habitat areas that are separated by development. Wildlife corridors are similar to linkages but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species, but inadequate for others. Wildlife corridors are significant features for dispersal, seasonal migration, breeding, and foraging. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

Wildlife corridors or areas of increased wildlife use were not observed within the BSA. Areas located outside the CVSWC contain disturbed and developed areas and provide little to no value for wildlife movement. The CVSWC connects the San Bernardino Mountains to the Salton Sea and offers a narrow, mostly-linear stretch of undeveloped land adjacent to a mostly developed area. Although no signs of wildlife movement, such as game trails, were observed, the CVSWC may still function as a local movement area within the region. No aquatic resources were observed within the BSA during the site survey. The portion of the Whitewater River within the BSA is unsuitable for fish and other wildlife which require aquatic environs as part of their life cycle, as surface water only occurs after significant rain events. The South Coast Missing Linkages report, which is used as a resource for the listing of known wildlife corridors in areas including the Coachella Valley, does not identify land within the BSA as a linkage or conservation land in spite of other areas outside the South Coast Ecoregion being identified as such (South Coast Wildlands 2008). The high volume of vehicle traffic on Jackson Street and I-10 and surrounding development poses a hindrance to wildlife movement opportunities in the upland areas of the BSA. Construction of the project would not reduce the potential for wildlife to utilize the CVSWC as a local movement area within the region.

## 2.3.1.2 Environmental Consequences

### *Temporary*

#### *No-Build Alternative*

Under the No-Build Alternative, the project will not cause any impacts on natural communities of concern within the BSA, including depleted natural communities/habitats of concern.

#### *Build Alternatives 2 and 4*

The project footprints for both Alternatives 2 and 4 are similar; therefore, the discussion of Alternatives 2 and 4 below is combined into a single discussion of build alternatives, since implementation of either Build Alternative would result in similar impacts.

As described above, one plant community was observed within the boundaries of the BSA during the habitat assessment, identified as desert wash. There are two human-modified areas that would be classified as disturbed and developed. Temporary impacts to these plant communities and other areas, as a result of Alternative 2 or Alternative 4, are listed in Table 2-55.

As shown in Table 2-55, impacts to the vegetation communities and other areas as a result of Alternative 2 or Alternative 4 would be temporary in nature. These temporary effects would be considered less than significant under CEQA and not adverse under NEPA, because these types of vegetation communities occur in abundance and support a limited amount of biological resources.

**Table 2-55 Temporary Impacts to Vegetation Types and Other Areas**

| Vegetation Types and Other Areas | Existing (Acres) | Alternative 2 Temporary Project Impact (Acres) | Alternative 4 Temporary Project Impact (Acres) |
|---|---|---|---|
| Desert Wash | 30.39 | 6.47 | 6.38 |
| Disturbed | 106.28 | 20.05 | 20.11 |
| Developed | 160.54 | 25.09 | 25.71 |
| Total | 297.21 | 51.61 | 52.2 |
| Source: ESA, 2019 | | | |

### *Habitat Connectivity*

There are no designated habitat linkages or migration corridors within the BSA; therefore, no temporary impacts are anticipated to occur to such features under Alternative 2 or Alternative 4.

## *Permanent*

### *No-Build Alternative*

Under the No-Build Alternative, the project will not cause any impacts on natural communities of concern within the BSA, including depleted natural communities/habitats of concern.

### *Build Alternatives 2 and 4*

The project footprints for both Alternatives 2 and 4 are similar; therefore, the discussions of Alternatives 2 and 4 below are combined into a single discussion of Build Alternatives, since implementation of either build alternative would result in similar impacts.

As described above, one plant community was observed within the boundaries of the BSA during the habitat assessment, identified as desert wash. In addition, there are two human-modified areas that would be classified as disturbed and developed. Permanent impacts to these plant communities and other areas as a result of Alternative 2 or Alternative 4 are listed in Table 2-56.

**Table 2-56 Permanent Impacts to Vegetation Types and Other Areas**

| Vegetation Types and Other Areas | Existing (Acres) | Alternative 2 Permanent Project Impact (Acres) | Alternative 4 Permanent Project Impacts (Acres) |
|---|---|---|---|
| Desert Wash (Disturbed) | 25.02 | 0.78 | 0.91 |
| Disturbed | 94.03 | 13.87 | 14.27 |
| Developed | 114.80 | 12.03 | 12.01 |
| Total | 233.84 | 26.68 | 27.19 |
| Source: ESA, 2019 | | | |

As shown in Table 2-56, the operation of Alternative 2 or Alternative 4 may result in permanent impacts to vegetation communities that commonly occur throughout the study area. Direct impacts may include vegetation removal from routine maintenance of the right-of-way. Indirect effects associated with operations of Alternative 2 or Alternative 4 may include increased dust, fire, pollution, trash, and the introduction of invasive plants. However, these impacts would not be inconsistent with or increase the conditions that already exist within the project area. Thus, operational effects from Alternative 2 or

Alternative 4 would be considered less than significant under CEQA and not adverse under NEPA, because these types of vegetation communities occur in abundance and support a limited amount of biological resources.

#### *Habitat Connectivity*

There are no designated habitat linkages or migration corridors within the BSA; therefore, no permanent impacts are anticipated to occur to such features under Alternative 2 or Alternative 4.

#### *CVMSHCP*

The project is located in the City of Indio, who is a permittee under the CVMSHCP and is required to comply with the requirements set forth in the CVMSHCP. Therefore, the proposed project was analyzed for its consistency with the CVMSHCP. The project is identified as a Covered Activity under the CVMSHCP. In developing the conservation goals and objectives of the CVMSHCP, the project was identified as a facility to be developed. As such, the project was determined to be consistent with the biological goals and objectives of the CVMSHCP. The project is located within the coverage area of the CVMSHCP, but is not located within any CVMSHCP-designated Conservation Areas. As a Covered Activity located outside of designated Conservation Areas, no avoidance, minimization, or mitigation measures are required for the project.

### 2.3.1.3 Avoidance, Minimization, and/or Mitigation Measures

No further avoidance, minimization, and mitigation measures are required other than those identified in Section 2.3.2, Wetlands and Other Waters, Section 2.3.3, Plant Species, Section 2.3.4, Animal Species, and Section 2.3.6, Invasive Species.

## 2.3.2 Wetlands and Other Waters

### 2.3.2.1 Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (CWA) (33 United States Code [USC] 1344), is the primary law regulating wetlands and surface waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. The lateral limits of jurisdiction over non-tidal water bodies extend to the ordinary high water mark (OHWM), in the absence of adjacent wetlands. When adjacent wetlands are present, CWA jurisdiction extends beyond the OHWM to the limits of the adjacent wetlands. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers (USACE) with oversight by the U.S. Environmental Protection Agency (U.S. EPA).

The USACE issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of USACE's Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404(b)(1) Guidelines (40 Code of Federal Regulations [CFR] 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a "least environmentally damaging practicable alternative" (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands (EO 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, EO 11990 states that a federal agency, such as FHWA and/or the Department, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: (1) that there is no practicable alternative to the construction and (2) the proposed project includes all practicable measures to minimize harm. A Wetlands Only Practicable Alternative Finding must be made.

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCBs) and the California Department of Fish and Wildlife (CDFW). In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or the Tahoe Regional Planning Agency) may also be involved. Sections

1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities which may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request. Please see the Water Quality section for more details.

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCBs) and the California Department of Fish and Wildlife (CDFW). In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or the Tahoe Regional Planning Agency) may also be involved. Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities which may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request. Please see the Water Quality section for more details.

#### 2.3.2.2 Affected Environment

Information used in this section is based on the approved I-10/Jackson Street Interchange Improvement Project Jurisdictional Delineation, dated July 2019 (ESA 2019), the I-10/Jackson Street Interchange Improvement Project Natural Environment Study/Minimal Impacts (NES/MI), dated July 2019 (ESA 2019) and the I-10/Jackson Street Interchange Improvement Project Location Hydraulic Study dated February 2019 (Pace, 2019).

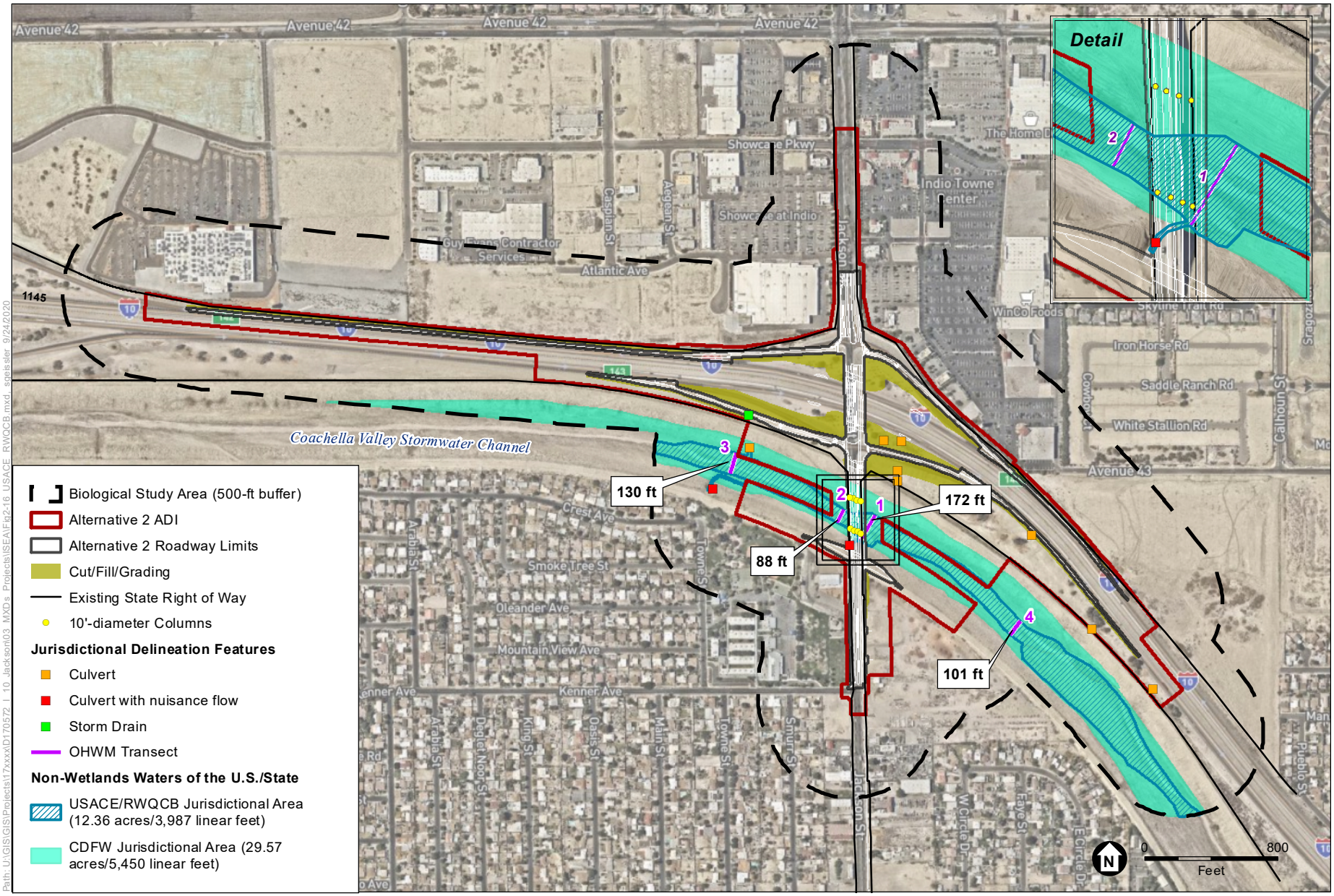
A field delineation was conducted to determine the jurisdictional limits of waters of the U.S. and waters of the State (including potential wetlands), located within the boundaries of the BSA. The field survey and verification of site conditions was conducted on May 2, 2018, and again on November 16, 2018, by certified wetland delineators and regulatory specialists. The jurisdictional delineation report provides an analysis of all water features that are or may be federally jurisdictional under USACE and RWQCB.

The Whitewater River is the main drainage within the Coachella Valley originating in the high altitudes of the San Bernardino Mountains to the northwest and travels southeast through the Coachella Valley,

terminating in the Salton Sea. Named and unnamed drainages of varying sizes flow into the Whitewater River along its path. The Whitewater River travels through the study area in a northwest to southeast direction and passes under the Jackson Street Bridge. In the BSA, the CVSWC directs the current course of the Whitewater River. The CVSWC is reinforced with high, artificial earthen berms to prevent flooding of nearby residential areas and I-10.

As part of the field delineation, wetland data pits were only sampled in areas that potentially met all three parameters. Based on the results of the field delineation, no areas met all three wetland parameters. Therefore, no jurisdictional wetland features were determined to exist within the BSA.

Waters within CVSWC and the Whitewater River terminate in the Salton Sea, which is considered a traditionally navigable water (TNW), for which tributaries to that feature are considered to be waters of the U.S. Therefore, the CVSWC and the Whitewater River are considered a tributary to a TNW and qualify as a water of the U.S., to be regulated by the USACE. Approximately 12.36 acres of non-wetland waters of the U.S. and approximately 29.57 acres of CDFW jurisdictional streambed is located within the BSA (refer to Figures 2-16 and 2-17).




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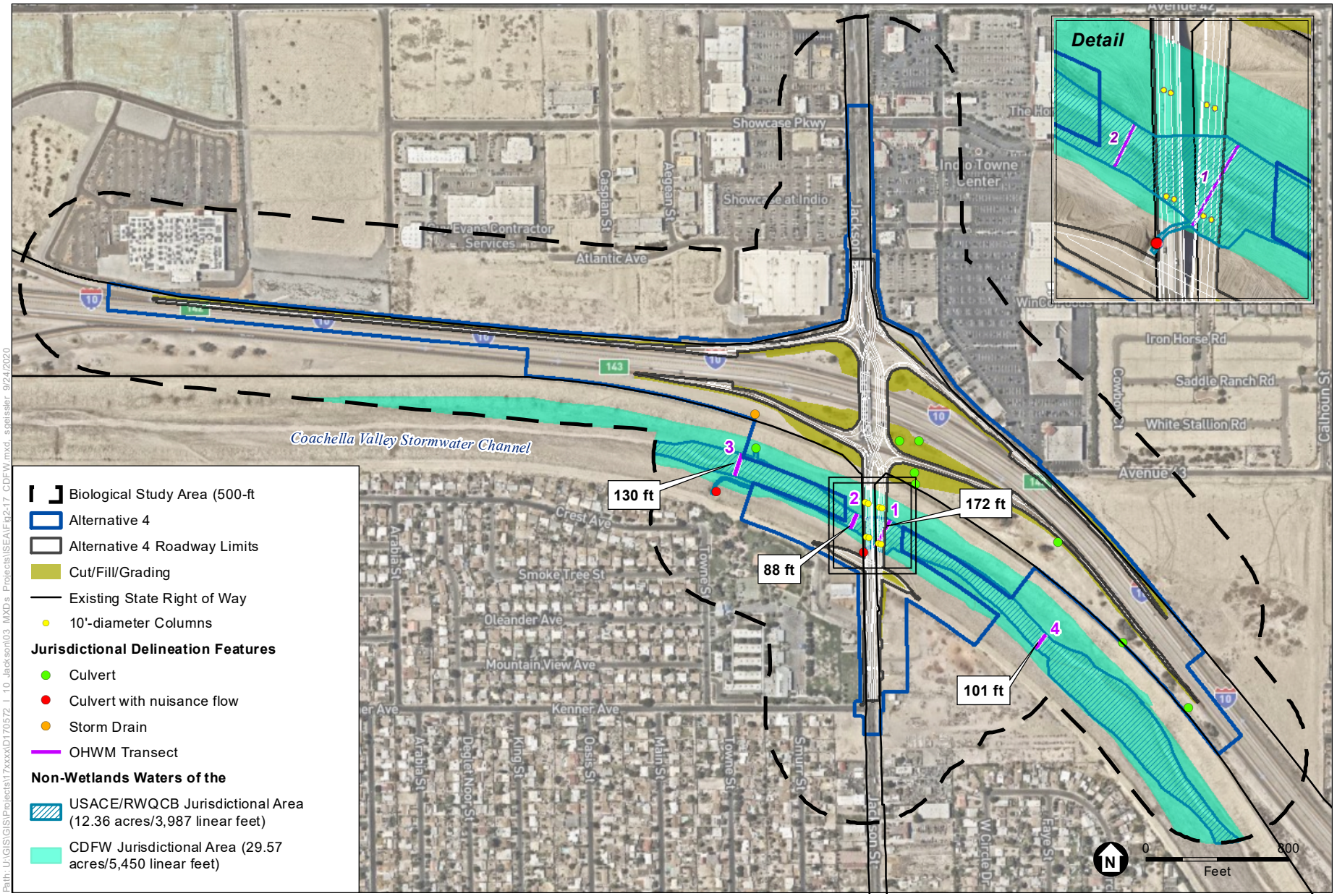
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I-10 / Jackson Street Interchange Project

**Figure 2-16**

USACE/RWQCB Jurisdiction

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SOURCE: Riverside County GIS

I-10 / Jackson Street Interchange Project

**Figure 2-17**

CDFW Jurisdiction

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### 2.3.2.3 Environmental Consequences

#### *Temporary*

*No-Build Alternative*

Under the No-Build Alternative, temporary project-related impacts to federal and State jurisdictional waters and wetlands would not occur.

*Build Alternative*

The project footprints for both Alternatives 2 and 4 are similar; therefore, the discussions of temporary impacts resulting from Alternatives 2 and 4 below are combined into a single discussion of Build Alternatives, since implementation of either build alternative would result in similar impacts.

Based on a review of the current design plans for Alternative 2, approximately 0.099 acres of temporary impacts would occur to USACE/Regional Board jurisdiction (non-wetland waters of the U.S. (refer to Table 2-57). In addition, Alternative 2 would result in approximately 6.41 acres of temporary impacts to CDFW jurisdictional streambed. Under Alternative 4, approximately 0.95 acres of temporary impacts would occur to USACE/Regional Board jurisdiction non-wetland waters of the U.S. (refer to Table 2-57). In addition, Alternative 4 would result in approximately 6.32 acres of temporary impacts to CDFW jurisdictional streambed.

In order to minimize for the temporary impacts identified in Table 2-57, the project proponent would be required to obtain the following regulatory approvals prior to construction within jurisdictional areas: (1) USACE CWA Section 404 Permit; (2) Regional Board CWA Section 401 Water Quality Certification; and (3) CDFW Section 1602 Streambed Alteration Agreement.

#### *Permanent*

*No-Build Alternative*

Under the No-Build Alternative, permanent project-related impacts to federal and state jurisdictional waters and wetlands would not occur. However, clearing, grubbing, and grading associated with maintenance activities within the CVSC that are unrelated to the project alternatives would continue to occur.

*Build Alternatives 2 and 4*

Permanent impacts on federal and state jurisdictional waters within the project footprints of Alternatives 2 and 4 would occur where there are proposed structures and developed areas, grading (including cut or fill), and at locations where water quality BMPs would be installed, as described in the discussion of impacts to water quality in Section 2.2.2. Table 2-58 provides a summary of the anticipated permanent impacts to jurisdictional features, resulting from implementation of Alternative 2 or Alternative 4.

As shown in Table 2-58, approximately 0.014-acre of permanent impacts would occur to non-wetland waters of the U.S., under Alternative 2. In addition, Alternative 2 would result in approximately 0.007-acre of permanent impacts to CDFW jurisdictional streambed. Under Alternative 4, approximately 0.43-acre of permanent impacts would occur to non-wetland waters of the U.S. In addition, Alternative 4 would result in approximately 0.91-acre of permanent impacts to CDFW jurisdictional streambed. There would be no loss of function to the CVSC associated with implementation of either Alternative 2 or Alternative 4.

**Table 2-57 Temporary Impacts to Jurisdictional Features**

| Site ID | Post Mile | Latitude/ Longitude | Cowardin Class | Class of Aquatic Feature | USACE/Regional Board Non-Wetland Waters of the U.S. Acreage (acres) | | | CDFW Streambed Acreage (acres) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | BSA | Alternative 2 | Alternative 4 | BSA | Alternative 2 | Alternative 4 |
| Whitewater River | N/A | 33.735954 / -116.216534 | Riverine | Non-Wetland | 12.36 | 0.099 | 0.95 | 29.57 | 6.41 | 6.32 |
| **TOTAL** | | | | | 12.36 | 0.099 | 0.95 | 29.57 | 6.41 | 6.32 |
| Source: ESA, 2019. | | | | | | | | | | |

**Table 2-58 Permanent Impacts to Jurisdictional Features**

| Site ID | Post Mile | Latitude/ Longitude | Cowardin Class | Class of Aquatic Feature | USACE/Regional Board Waters of the U.S. Acreage (acres) | | | CDFW Streambed Acreage (acres) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | BSA | Alternative 2 | Alternative 4 | BSA | Alternative 2 | Alternative 4 |
| Whitewater River | N/A | 33.735954 / -116.216534 | Riverine | Non-Wetland | 12.36 | 0.014 | 0.43 | 29.57 | 0.007 | 0.91 |
| **TOTAL** | | | | | 12.36 | 0.014 | 0.43 | 29.57 | 0.007 | 0.91 |
| Source: ESA, 2019. | | | | | | | | | | |

The project will minimize impacts to the CVSC in the final design of the structures. The trapezoidal, earth channel is under the Coachella Valley Water District (CVWD) jurisdiction within the limits of the project. In addition, a Rapid Stability Assessment (RSA) will be conducted during the PS&E phase. The Department Permit mandates that a RSA be conducted for all projects that include one acre or more of net new imperious (NNI) and for any new impervious portion of the project that drains to a stream crossing located within the project limits. A portion of the new impervious surface is located within the Threshold Drainage Area (TDA) as defined by the Caltrans Hydromodification Guidance (February 2015).

Further, clearing, grubbing, and grading associated with the project may result in indirect impacts associated with potential sediment release and transport of non-native plants into adjacent jurisdictional areas.

In order to minimize the permanent impacts identified in Table 2-58, the project proponent would be required to obtain the following regulatory approvals prior to construction within jurisdictional areas: (1) USACE CWA Section 404 Permit; (2) Regional Board CWA Section 401 Water Quality Certification; and (3) CDFW Section 1602 Streambed Alteration Agreement.

#### 2.3.2.4 Avoidance, Minimization, and/or Mitigation Measures

As described in greater depth in the discussion of impacts to water quality, in Section 2.2.2, the project would implement BMPs to prevent stormwater runoff, sedimentation, and pollutants from entering the channels during construction. Measures WQ-1 and WQ-2, as introduced in Section 2.2.2.4 would implement stormwater BMPs and require the preparation and implementation of a stormwater pollution prevention plan.

The following authorizations and permits would be required prior to the start of project construction:

- USACE: CWA Section 404 Nationwide Permit (NWP) 14 (Linear Transportation Projects) or non-notifying Section 404 NWP provided all terms and conditions of the NWP permit program are met.
- RWQCB: CWA Section 401 Water Quality Certification. A fee will be required as part of this permit.
- CDFW: Section 1602 of the Fish and Game Code, Lake or Streambed Alteration Agreement (LSAA). A fee will be required as part of this permit.

In consultation with the regulatory agencies above, compensatory mitigation shall be provided if required under the conditions of the regulatory approvals. The process for the application and granting of the permits described above would also include the verification that the project includes suitable measures or appropriate mitigation would be implemented to avoid or minimize potential temporary and permanent impacts to jurisdictional features, where feasible, during project construction and operations.

Construction and operational effects from either build Alternative would be considered less than significant under CEQA and not adverse under NEPA, because temporary or permanent impacts to jurisdictional features would be avoided and/or minimized for on-site or with the use of compensatory mitigation.

During construction, the following measure will be implemented to avoid and minimize potential impacts to the CVSC.

**WET-1:** Construction activities within the CVSC will be designed and conducted to maintain downstream flow conditions, if water is present. All construction activities will be effectively isolated from water flows to the greatest extent feasible. This may be accomplished by working in the dry season or dewatering the work area in the wet season. When work in standing or flowing water is required, structures for isolating the in-water work area and/or diverting the water flow must not be removed until all disturbed areas are cleaned and stabilized. The diverted water flow must not be contaminated by construction activities. Structures used to isolate the in-water work area and/or diverting the water flow (e.g., coffer dam, geotextile silt curtain) must not be removed until all disturbed areas are stabilized.

## 2.3.3 Plant Species

### 2.3.3.1 Regulatory Setting

The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) have regulatory responsibility for the protection of special-status plant species. "Special-status" species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are provided varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). Please see the Threatened and Endangered Species section (Section 2.3.5) in this document for detailed information about these species.

This section of the document discusses all other special-status plant species, including CDFW species of special concern, USFWS candidate species, and California Native Plant Society (CNPS) rare and endangered plants.

The regulatory requirements for FESA can be found at 16 United States Code (USC) Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et seq. Department projects are also subject to the Native Plant Protection Act, found at California Fish and Game Code, Section 1900-1913, and California Environmental Quality Act (CEQA), found at California Public Resources Code, Sections 21000-21177.

### 2.3.3.2 Affected Environment

Information used in this section is based on the *I-10/Jackson Street Interchange Improvement Project Natural Environment Study/Minimal Impacts* (NES/MI), dated July 2019 (ESA 2019).

Prior to conducting the field survey, a literature review and records search was conducted for special-status biological resources potentially occurring within the vicinity of the BSA. Plant and wildlife special-status species lists were derived from a search of the California Natural Diversity Data Base (CNDDB), and California Native Plant Society (CNPS) database searches of Indio, Myoma, West Berdoo Canyon, Rockhouse Canyon, La Quinta, Thermal Canyon, Martinez Mountain, Valerie and Mecca U.S. Geological Survey 7.5-minute quadrangles. In addition, the U.S. Fish and Wildlife Service (USFWS) Information, Planning, and Consultation (IPaC) System database was consulted. The primary sources of available literature referenced for the project include the following:

- USFWS Online Inventory of Federally Threatened and Endangered Species (USFWS 2018).
- CNDDB Rare Find online program (CDFW 2018).
- CNPS Online Inventory of Rare and Endangered Plants (CNPS 2018).
- Coachella Valley Multiple Species Habitat Conservation Plan (CVAG 2016).
- National Wetland Inventory (NWI) (USFWS 2018) was queried to identify potential jurisdictional waters within the BSA.
- Google Earth Historical Aerial Imagery, 1995-2018 (Google Earth 2018).

Reconnaissance surveys and a jurisdictional delineation were conducted by qualified biologists on May 2, 2018, and on November 6, 2018.

The majority of special-status plant species were determined from the literature search to have habitat requirements for natural vegetation communities and specific soil types that do not occur within the BSA. The BSA is comprised primarily of developed and disturbed land covers as well as disturbed desert wash, and does not support natural vegetation communities. Although the preferred habitat of some species includes desert wash, which occurs in the CVSWC, the CVSWC is only marginally suitable due to continued disturbance of this area within the BSA as a result of ongoing maintenance activities. Based on the results of the literature search, a total of 14 special-status plant species have the potential to occur within the BSA. Of these 14 species, 10 species have low potential to occur and four special-status plant species are not expected to occur within the BSA.

Special-status plant species were not observed during reconnaissance surveys and have a low potential to occur due to the disturbed nature of the Whitewater River. Ongoing maintenance activities including clearing the CVSWC to bare ground and recontouring occurs regularly every 1 to 2 years. These maintenance events provide conditions that favor non-native plants, as evidenced by the observed abundance and diversity of non-native plants within the Whitewater River. Under these conditions it is difficult for native plants, including special-status plants, to become established within the CVSWC and Whitewater River.

Table 2-59 provides an overview of special-status plant species with potential to occur within the BSA.

#### 2.3.3.3 Environmental Consequences

##### *Temporary*

*No-Build Alternative*

The No-Build Alternative will not result in an impact to special-status plant species as existing conditions at the I-10/Jackson Street interchange will remain intact and there will be no improvements made to the interchange, I-10 mainline and along Jackson Street.

*Build Alternatives 2 and 4*

The project footprints for both Alternatives 2 and 4 are similar; therefore, the discussion of Alternatives 2 and 4 below is combined into a single discussion of build alternatives, since implementation of either build alternative would result in similar impacts.

The implementation of Alternatives 2 and 4 may impact special-status plant species. The disturbed desert wash within the Whitewater River within the CVSWC will be temporarily and permanently impacted as part of the construction of the Jackson Street bridge over the CVSWC. Although special-status plants have a low potential to occur, direct impacts may occur should individuals grow within the work area of the bridge. However, measure **BIO-1** below will avoid or reduce any potential impact to special status plants. Short-term construction impacts would be considered less than significant under CEQA and not adverse under NEPA.

##### *Permanent*

*No-Build Alternative*

Under the No-Build Alternative, the project will not result in permanent impacts to non-listed special-status species.

## Table 2-59 Special-Status Plant Species with Potential to Occur in the BSA

| Common Name | Scientific Name | Status | General Habitat Description | Habitat Present/ Absent | Potential to Occur in the BSA |
|---|---|---|---|---|---|
| **Plants** | | | | | |
| Coachella Valley milk-vetch | *Astragalus lentiginosus* var. *coachellae* | FE, CRPR 1B.2, CVMSHCP CS | Sonoran Desert scrub, desert dunes. Sandy flats, washes, outwash fans, sometimes on dunes. 35-695 m. | HP | Low potential. There is marginal suitable habitat within the BSA. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |
| triple-ribbed milk-vetch | *Astragalus tricarinatus* | FE, CRPR 1B.2, CVMSHCP CS | Joshua tree woodland, Sonoran Desert scrub. Hot, rocky slopes in canyons and along edge of boulder-strewn desert washes, with Larrea and Encelia. 455-1585 m. | A | Not expected. There is marginal suitable habitat within the BSA. BSA is outside the elevation range for the species. |
| Lancaster milk-vetch | *Astragalus preussii* var. *laxiflorus* | 1B.1 | Chenopod scrub, Desert wash. Alkaline clay flats or gravelly or sandy washes and along draws in gullied badlands. 700-735 m in California. | A | Not expected. There is marginal suitable habitat within the BSA. BSA is outside the elevation range for the species. |
| gravel milk-vetch | *Astragalus sabulonum* | 2B.2 | Desert dunes, Mojavean desert scrub, Sonoran Desert scrub. Sandy or gravelly flats, washes, and roadsides. 60-885 m. | HP | Low potential. There is marginal suitable habitat within the BSA. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |
| California ayenia | *Ayenia compacta* | 2B.3 | Mojavean desert scrub, Sonoran Desert scrub. Sandy and gravelly washes in the desert; dry desert canyons. 60-1830 m. | HP | Low potential. There is marginal suitable habitat within the BSA. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |
| little-leaf elephant tree | *Bursera microphylla* | 2B.3 | Sonoran Desert scrub. Hillsides and washes and on canyon sides in California; rocky sites. 195-610 m. | HP | Low potential. There is marginal suitable habitat within the BSA. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |
| glandular ditaxis | *Ditaxis claryana* | 2B.2 | Mojavean desert scrub, Sonoran Desert scrub. In dry washes and on rocky hillsides. Sandy soils. 0-465 m. | HP | Low potential. There is marginal suitable habitat within the BSA. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |

| Common Name | Scientific Name | Status | General Habitat Description | Habitat Present/ Absent | Potential to Occur in the BSA |
|---|---|---|---|---|---|
| Little San Bernardino Mtns. linanthus | *Linanthus maculatus* ssp. *maculatus* | 1B.2, CVMSHCP CS | Desert dunes, Sonoran Desert scrub, Mojavean desert scrub, Joshua tree woodland. Sandy places. Usually in light-colored quartz sand; often in wash or bajada. 135-1220 m. | HP | Low potential. There is marginal suitable habitat within the BSA. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |
| slender-stem bean | *Phaseolus filiformis* | 2B.1 | Desert wash, Sonoran Desert scrub. Gravelly washes bordered by creosote bush-dominated rocky slopes. 305-1,219 m. | HP | Low potential. There is marginal suitable habitat within the BSA. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |
| Latimer's woodland-gilia | *Saltugilia latimeri* | 1B.2 | Chaparral, Mojavean desert scrub, pinyon and juniper woodland. Rocky or sandy substrate; sometimes in washes, sometimes limestone. 120-2200 m. | HP | Low potential. There is marginal suitable habitat within the BSA. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |
| Orocopia sage | *Salvia greatae* | 1B.3, CVMSHCP CS | Mojavean desert scrub, Sonoran Desert scrub. Broad alluvial bajadas and fans adjacent to desert washes in gravelly or rocky soil, rocky slopes of canyons. 45-675 m. | HP | Low potential. There is marginal suitable habitat within the BSA. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |
| Cove's cassia | *Senna covesii* | 2B.2 | Desert wash, Sonoran Desert scrub. Dry, sandy desert washes, slopes. 255-1295 m. | A | Not expected. There is suitable habitat within the BSA. BSA is outside the elevation range for the species. |
| jackass-clover | *Wislizenia refracta* ssp. *refracta* | 2B.2 | Alkali playa, Desert dunes, Desert wash, Mojavean desert scrub, Sonoran Desert scrub. Sandy washes, roadsides, alkaline flats. 380-1160 m. | A | Not expected. There is suitable habitat within the BSA. BSA is outside the elevation range for the species. |
| Palmer's jackass clover | *Wislizenia refracta* ssp. *palmeri* | 2B.2 | Chenopod scrub, Sonoran Desert scrub, Sonoran thorn woodland, desert dunes, desert wash. Known from desert basins, dunes, washes and benches of sand field ecotones where upland desert scrubs, typically creosote bush scrub or palo verde, transition to halophytic scrub or mesquite. 125-175 m. | HP | Low potential. There is marginal suitable habitat within the BSA. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |

| Common Name | Scientific Name | Status | General Habitat Description | Habitat Present/ Absent | Potential to Occur in the BSA |
|---|---|---|---|---|---|
| Status Codes:<br>Absent [A] - no habitat present and no further work needed; Habitat Present [HP] - habitat is, or may be present. The species may be present; Present [P] - the species is present.<br>FE = Listed as Endangered (in danger of extinction) by the Federal Government.<br>CRPR = California Rare Plant Rank<br>CVMSHCP CS = Coachella Valley Multiple Species Habitat Conservation Plan Covered Species<br><u>California Native Plant Society Rare Plant Ranks and Threats</u><br>Rank 1A – Plants presumed extirpated in California and either rare or extinct elsewhere; Rank 1B – Plants rare, threatened, or endangered in California and elsewhere; Rank 2A - Plants presumed extirpated in California but common elsewhere; Rank 2B – Plants rare, threatened or endangered in California, but more common elsewhere; Rank 3 - Plants about which more information is needed, and Rank 4 – Plants of limited distribution; CNPS Threat Ranks<br>Threat 0.1 – Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat; Threat 0.2 – Moderately threatened in California (20 percent to 80 percent of occurrences threatened/moderate degree and immediacy of threat); and Threat 0.3 – Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known;<br>Sources: CDFW 2018; CNPS 2018; USFWS 2018a, CVAG 2016 | | | | | |

*Build Alternatives 2 and 4*

The project footprints for both Alternatives 2 and 4 are similar; therefore, the discussion of permanent impacts resulting from implementation of Alternatives 2 or 4 below is combined into a single discussion of build alternatives, since implementation of either build alternative would result in similar impacts.

As shown in Table 2-59, the thirty special-status plant species with potential to occur within the BSA are either not expected to occur or have a low likelihood of occurring within the BSA, and are presumed absent. Therefore, no long-term impacts to special-status plant species are anticipated to occur as a result of operation of the project.

#### 2.3.3.4 Avoidance, Minimization, and/or Mitigation Measures

Implementation of the following avoidance and minimization measures would ensure temporary impacts to special-status plant species would be unlikely to occur.

**BIO-1:** Project activities within the Whitewater River should be timed to begin immediately after maintenance activities conducted by the CVWD, if possible, to reduce the potential for impacts to special-status species. Alternatively, pre-construction surveys for special-status plant species should be conducted within 7 days of the start of project activities within the Whitewater River. Prior to construction, designating environmentally sensitive areas with ESA fencing should be used to mark the boundary of the work area within the Whitewater River. If a special-status plant species is observed within the work area, ESA fencing will be installed and the area avoided. If unavoidable, the Resource Agencies shall be consulted to discuss the appropriate method for relocation. Specific measures to protect Little San Bernardino Mountains linanthus are included in the CVMSHCP.

## 2.3.4 Animal Species

### 2.3.4.1 Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service), and the California Department of Fish and Wildlife (CDFW) are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the federal or state Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in the Threatened and Endangered Species Section below. All other special-status animal species are discussed here, including CDFW fully protected species and species of special concern, and USFWS or NOAA Fisheries Service candidate species.

Federal laws and regulations relevant to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

State laws and regulations relevant to wildlife include the following:

- California Environmental Quality Act
- Sections 1600 – 1603 of the California Fish and Game Code
- Sections 4150 and 4152 of the California Fish and Game Code.

### 2.3.4.2 Affected Environment

Information used in this section is based on the *I-10/Jackson Street Interchange Improvement Project Natural Environment Study/Minimal Impacts* (NES/MI), dated July 2019 (ESA 2019).

#### *Habitat Assessment*

The BSA includes all areas that could potentially be physically impacted by the proposed project, and includes a 500-foot buffer around those areas, to accommodate any changes to the project footprint that may occur during project design.

Reconnaissance surveys and database and literature searches were conducted to observe animal species and habitat present or identify the potential for animals or habitat to occur within the BSA. The majority of special-status wildlife species shown in Table 2-60 were determined from the literature search to have habitat requirements for natural vegetation communities and specific soil types that do not occur within the BSA. The BSA is comprised primarily of developed and disturbed land covers as well as disturbed desert wash, but does not support natural vegetation communities. The existing condition of high levels of disturbance from vehicular traffic along Jackson Street and I-10 reduces the potential for the occurrence of special-status species within the project footprint or within the larger BSA. Disturbed desert wash habitat located within the CVSWC is only marginally suitable for species who prefer such habitats including loggerhead shrike (*Anaxyrus californicus*) and arroyo toad (*Lanius ludovicianus*). Ongoing maintenance activities within the CVSWC prevent the establishment of vegetation communities.

A total of 19 special-status animal species have the potential to occur within the BSA. Of those 19 species, 13 species have low potential to occur and 5 species are not expected to occur within the BSA.

However, burrowing owls occur, as they were observed nesting within the BSA. Although not special-status, nesting, common birds protected under the MBTA and California Fish and Game Code to occur within the BSA, cliff swallows (Petrochelidon pyrrhonota) were observed nesting on the Jackson Street bridge that crosses the CVSWC. There is low potential for special-status bats to occur within the Jackson Street bridge that crosses the CVSWC within the BSA, such as spotted bat (Euderma maculatum), as suitable crevices were not observed on the bridge.

### *Personnel Survey Dates*

Reconnaissance surveys and a jurisdictional delineation were conducted by qualified biologists on May 2, 2018, and on November 6, 2018. Burrowing owl surveys were conducted on May 2, May 18, June 7, and July 5, 2018.

### *Wildlife*

Wildlife species detected during the field survey by sight, calls, tracks, scat, and other signs were recorded in a field notebook. Field guides were used to assist with identification of species during surveys and included The Sibley Field Guide to the Birds of Western North America for birds, A Field Guide to Western Reptiles and Amphibians for herpetofauna, and A Field Guide to Mammals of North America for mammals. Taxonomic nomenclature used in this discussion follows these guides or, where applicable, accepted taxonomic updates (e.g., the American Ornithologists' Union annual checklist supplement). Although common names of wildlife species are fairly well standardized, scientific names are provided immediately following common names (first reference only).

#### *Fish*

No fish were observed within the BSA during the habitat assessment. The section of the CVSWC located within the BSA was dry during the habitat assessment and most likely does not support standing water for long periods of time that would be sufficient enough to support populations of fish. Therefore, fish are presumed absent from the BSA.

#### *Amphibians*

Marginal habitat was identified within the Whitewater River in the form of disturbed desert wash for the following species: desert slender salamander (*Batrachoseps major aridus*) and arroyo toad (*Anaxyrus californicus*).

Special-status amphibian species were not observed during project surveys and have a low potential to occur due to the disturbed nature of the Whitewater River. Ongoing maintenance activities remove all vegetation within the river and surrounding CVSWC, as well as shrub cover, that special-status amphibian species rely on for their survival.

#### *Reptiles*

Marginal habitat was identified within the Whitewater River in the form of disturbed desert wash for the following species: desert tortoise (*Gopherus agassizii*).

Desert tortoise or their sign were not observed during project surveys and have a low potential to occur due to the disturbed nature of the Whitewater River. Ongoing maintenance activities remove all vegetation within the river and surrounding CVSWC.

#### *Birds*

Marginal habitat was identified within the Whitewater River in the form of disturbed desert wash for the following species: loggerhead shrike (*Lanius ludovicianus*), black-tailed gnatcatcher (*Polioptila*

*melanura*), Crissal thrasher (*Toxostoma crissale*) and Le Conte's thrasher (*Toxostoma lecontei*). Suitable habitat was identified within the Whitewater River in the form of disturbed desert wash for burrowing owl (*Athene cunicularia*).

### *Mammals*

Pallid bat (*Antrozous pallidus*), pallid San Diego pocket mouse (*Chaetodipus fallax pallidus*), spotted bat (*Euderma maculatum*), western yellow bat (*Lasiurus xanthinus*), Palm Springs pocket mouse (*Perognathus longimembris bangsi*), American badger (*Taxidea taxus*), and the Palm Springs round-tailed ground squirrel (*Xerospermophilus tereticaudus chlorus*) all have habitat present within the BSA. However, there is low potential for those species to occur within the project footprint.

While bats occur throughout most of southern California, their habitat within the BSA is somewhat limited. They may forage throughout most of the open habitat, but there is limited suitable roosting habitat (i.e., bridges, untrimmed palm trees, or caves) within the BSA or general vicinity. The Jackson Street bridge over the CVSWC and ornamental palm tree species along the eastbound I-10 exit at Jackson Street, within the BSA, have the potential to provide suitable roosting habitat for bats, however, no bats or signs were detected around the Jackson Street bridge or palm trees during the habitat assessment. However, as described above, while the likelihood is low, suitable crevices were observed in the Jackson Street bridge that could accommodate roosting. Additionally, the palm trees are routinely maintained and therefore would not be expected to provide suitable roosting opportunities.

## *Regional Species and Habitats and Natural Communities of Concern*

Natural communities are assemblages of plant species that occur together in the same area and are defined by species composition and relative abundance. The BSA consists primarily of disturbed and developed areas. Developed areas include roadways, parking lots, structures, ornamental landscaping, and disturbed areas consisting of road shoulders, maintained fields and the maintained CVSWC. Much of the BSA consists of paved areas and maintained disturbed areas with very limited habitat value. There are no natural communities of concern within the BSA. The CVSWC and disturbed lands to the north of I-10 can provide marginal foraging habitat for disturbance-tolerant wildlife such as jackrabbit, seed-eating passerines (songbirds), and foraging raptors. Several of the ornamental trees planted in the road margins and within commercial properties could provide nesting habitat for birds protected under the MBTA or California Fish and Game Code Section 3500 or roosting habitat for special-status bats. The Jackson Street bridge provides suitable habitat for nesting cliff swallows and could provide roosting habitat for special-status bats.

Table 2-60 provides a summary of the potential for the occurrence of special-status animal species with potential habitat within the BSA. Of the 14 special-status animal species that have the potential to occur within the BSA, 10 have low potential to occur and four special-status animal species are not expected to occur within the BSA. Burrowing owl is the only species with high potential to occur within the BSA, and was observed within the BSA during site surveys. Additionally, Loggerheaded shrike, Crissal thrasher, and Le Conte’s thrasher have low potential to occur in the BSA as there is marginal foraging habitat. There is no critical habitat for any of these species within the BSA.

**Table 2-60 Special-Status Wildlife Species with Potential to Occur in the BSA**

| Common Name | Scientific Name | Status | General Habitat Description | Habitat Present/ Absent | Potential to Occur in the BSA |
|---|---|---|---|---|---|
| **Invertebrates** | | | | | |
| Casey's June beetle | *Dinacoma caseyi* | FE | Desert wash, Mojavean desert scrub. Found only in two populations in a small area of southern Palm Springs. Found in sandy soils; the females live underground and only come to the ground surface to mate. | A | Not expected. There is marginal suitable habitat within the BSA. The BSA is outside the known range of the species. |
| **Amphibians** | | | | | |
| arroyo toad | *Anaxyrus californicus* | FE, SSC, CVMSHCP CS | Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc. Rivers with sandy banks, willows, cottonwoods, and sycamores; loose, gravelly areas of streams in drier parts of range. | HP | Low potential. There is marginal suitable habitat within the BSA. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |
| desert slender salamander | *Batrachoseps major aridus* | FE, SE | Desert wash, Limestone, Talus slope. Known only from Hidden Palm Canyon and Guadalupe Creek, Riverside County, in barren, palm oasis, desert wash, and desert scrub. Occurs under limestone sheets, rocks, and talus, usually at the base of damp, shaded, north and west-facing walls. | A | Not expected. Desert wash occurs within the BSA but lacks limestone, rocks or talus. |
| **Reptiles** | | | | | |
| desert tortoise | *Gopherus agassizii* | FT, ST, CVMSHCP CS | Most common in desert scrub, desert wash, and Joshua tree habitats; occurs in almost every desert habitat. Require friable soil for burrow and nest construction. Creosote bush habitat with large annual wildflower blooms preferred. | HP | Low potential. There is marginal suitable habitat within the BSA. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |
| flat-tailed horned lizard | *Phrynosoma mcallii* | SSC, CVMSHCP CS | Restricted to desert washes and desert flats in central Riverside, eastern San Diego, and Imperial counties. Critical habitat element is fine sand, into which lizards burrow to avoid temperature extremes; requires vegetative cover and ants. | A | Not expected. Desert wash occurs within the BSA but lacks the fine, sandy soils the species requires. |
| Coachella Valley fringe-toed lizard | *Uma inornata* | FT, SE, CVMSHCP CS | Desert dunes, Desert wash. Limited to sandy areas in the Coachella Valley, Riverside County. Requires fine, loose, windblown sand (for burrowing), interspersed with hardpan and widely spaced desert shrubs. | A | Not expected. Desert wash occurs within the BSA but lacks the fine, sandy soils the species requires. |

| Common Name | Scientific Name | Status | General Habitat Description | Habitat Present/ Absent | Potential to Occur in the BSA |
|---|---|---|---|---|---|
| **Birds** | | | | | |
| burrowing owl | *Athene cunicularia* | SSC, CVMSHCP CS | Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel. | P | High potential. Observed nesting within the BSA. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |
| loggerhead shrike | *Lanius ludovicianus* | SSC | Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub & washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting. | HP | Low potential. The CVSWC may provide marginal foraging habitat if vegetation is allowed to grow. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |
| black-tailed gnatcatcher | *Polioptila melanura* | WL | Primarily inhabits wooded desert wash habitats; also occurs in desert scrub habitat, especially in winter. Nests in desert washes containing mesquite, palo verde, ironwood, acacia; absent from areas where salt cedar introduced. | HP | Not expected. There is marginal foraging habitat within the CVSWC. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |
| Crissal thrasher | *Toxostoma crissale* | SSC, CVMSHCP CS | Resident of southeastern deserts in desert riparian and desert wash habitats. Nests in dense vegetation along streams/washes; mesquite, screwbean mesquite, ironwood, catclaw, acacia, arrowweed, willow. | HP | Low potential. There is marginal foraging habitat within the CVSWC. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |
| Le Conte's thrasher | *Toxostoma lecontei* | SSC, CVMSHCP CS | Desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground. | HP | Low potential. There is marginal foraging habitat within the CVSWC. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |
| Southwestern willow flycatcher | *Empidonax traillii extimus* | SE, FE, CVMSHCP CS | Dense shrubby riparian vegetation, dominated by willows. | A | Not expected. Appropriate habitat is not found in the project limits. |

| Common Name | Scientific Name | Status | General Habitat Description | Habitat Present/ Absent | Potential to Occur in the BSA |
|---|---|---|---|---|---|
| Yuma clapper rail | *Rallus longirostris yumanensi* | FE, ST, SFP, CVMSHCP CS | Marsh resident; primarily dense cattail or cattail-bulrush. Freshwater and alkali marshes. Nest sites selected by this subspecies are near upland areas in shallow sites dominated by mature vegetation, often in the base of a shrub. | A | Not expected. Appropriate habitat is not found in the project limits. |
| **Mammals** | | | | | |
| pallid bat | *Antrozous pallidus* | SSC | Chaparral, Coastal scrub, Desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Riparian woodland, Sonoran Desert scrub, Upper montane coniferous forest, Valley & foothill grassland. Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. | HP | Low potential. The Jackson Street bridge may provide suitable roosting habitat. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |
| pallid San Diego pocket mouse | *Chaetodipus fallax pallidus* | SSC | Desert border areas in eastern San Diego County in desert wash, desert scrub, desert succulent scrub, pinyon-juniper, etc. Sandy, herbaceous areas, usually in association with rocks or coarse gravel. | HP | Low potential. The CVSWC provides marginal habitat. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |
| spotted bat | *Euderma maculatum* | SSC | Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests. Feeds over water and along washes. Feeds almost entirely on moths. Needs rock crevices in cliffs or caves for roosting. | HP | Low potential. The Jackson Street bridge may provide suitable roosting habitat. The CVSWC may provide marginal foraging habitat. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |
| western yellow bat | *Lasiurus xanthinus* | SSC | Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees. | HP | Low potential. The Jackson Street bridge may provide suitable roosting habitat. The CVSWC may provide marginal foraging habitat. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |
| pocketed free-tailed bat | *Nyctinomops femorosaccus* | SSC | Variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc. Rocky areas with high cliffs. | A | Low potential. The Jackson Street bridge may provide suitable roosting habitat. The CVSWC may provide marginal foraging habitat. |

| Common Name | Scientific Name | Status | General Habitat Description | Habitat Present/ Absent | Potential to Occur in the BSA |
|---|---|---|---|---|---|
| Palm Springs pocket mouse | *Perognathus longimembris bangsi* | SSC, CVMSHCP CS | Desert riparian, desert scrub, desert wash and sagebrush habitats. Most common in creosote-dominated desert scrub. Rarely found on rocky sites. Occurs in all canopy coverage classes. | HP | Low potential. The CVSWC provides marginal habitat. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed).However, CVAG GIS layer shows this species occurring in the Whitewater Channel portion for this project. |
| American badger | *Taxidea taxus* | SSC | Alkali marsh, Alkali playa, Alpine, Alpine dwarf scrub, Bog & fen, Brackish marsh, Broadleaved upland forest, Chaparral, Chenopod scrub, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal dunes, Coastal prairie, Coastal scrub, Desert dunes, Desert wash, Freshwater marsh, Great Basin grassland, Great Basin scrub, Interior dunes, Ione formation, Joshua tree woodland, Limestone, Lower montane coniferous forest, Marsh & swamp, Meadow & seep, Mojavean desert scrub, Montane dwarf scrub, North coast coniferous forest, Oldgrowth, Pavement plain, Redwood, Riparian forest, Riparian scrub, Riparian woodland, Salt marsh, Sonoran desert scrub, Sonoran thorn woodland, Ultramafic, Upper montane coniferous forest, Upper Sonoran scrub, Valley & foothill grassland. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows. | HP | Low potential. The CVSWC provides marginal habitat. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |
| Palm Springs round-tailed ground squirrel | *Xerospermophilus tereticaudus chlorus* | SSC | Chenopod scrub, Sonoran Desert scrub. Restricted to the Coachella Valley. Prefers desert succulent scrub, desert wash, desert scrub, alkali scrub, and levees. Prefers open, flat, grassy areas in fine-textured, sandy soil. Density correlated with winter rainfall. | HP | Low potential. The CVSWC provides marginal habitat. Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) and temporary impact to of 6.47 acres (Alternative 2) or the permanent loss of 0.91 and temporary impact of 6.38 acres (Alternative 4) of desert wash (disturbed). |

| Common Name | Scientific Name | Status | General Habitat Description | Habitat Present/ Absent | Potential to Occur in the BSA |
|---|---|---|---|---|---|
| Status Codes:<br>Absent [A] - no habitat present and no further work needed; Habitat Present [HP] - habitat is, or may be present. The species may be present; and Present [P] - the species is present.<br>FEDERAL: (U.S. Fish and Wildlife Service)<br>FE = Listed as Endangered (in danger of extinction) by the Federal Government; and FT = Listed as Threatened (likely to become Endangered within the foreseeable future) by the Federal Government.<br>LOCAL: Coachella Valley<br>CVMSHCP CS = Coachella Valley Multiple Species Habitat Conservation Plan Covered Species<br>STATE: (California Department of Fish and Game<br>SE = Listed as Endangered by the State of California; SSC = California Species of Special Concern; ST = Listed as Threatened by the State of California; WL = California Watch List<br>Sources: CDFW 2018; USFWS 2018a, CVAG 2016 | | | | | |

### *Burrowing Owl*

Burrowing owl, a State-designated Species of Concern, can be found in a number of arid vegetation communities containing low-growing vegetation. Burrowing owl requires either natural burrows, such as coyote or ground squirrel burrows, or artificial burrows, such as pipes, culverts, or debris piles for nesting. Foraging areas surrounding the burrow sites must be present.

Suitable habitat for burrowing owl was identified throughout BSA, specifically on the banks of the engineered channel of the CVSWC, where ground cover is relatively sparse and low-growing, with an abundance of small mammal burrows. During the focused surveys, special attention was placed on the detection of small fossorial mammal burrows, potentially suitable for burrowing owl, individual owls; and any diagnostic sign of their presence (e.g., molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance).

### *Migratory Birds and Raptors*

The project site provides suitable nesting habitat for a number of common resident and migratory bird species protected under the MBTA and California Fish and Game Code Section 3500. Ornamental landscaping that includes trees and shrubs as well as the Jackson Street bridge over CVSWC can provide nesting habitat for such migratory birds or raptors. Cliff swallows were observed nesting on the Jackson Street bridge over CVSWC and are expected to return on an annual basis. Raptors with low potential to nest in the BSA include red-tailed hawk (*Buteo jamaicansis*) and American kestrel (*Falco sparverius*).

### *Bat Species*

Marginal habitat was identified within the Whitewater River in the form of disturbed desert wash and/or along the Jackson Street bridge over the CVSWC for the following species: pallid bat (*Antrozous pallidus*), spotted bat (*Euderma maculatum*), western yellow bat (*Lasiurus xanthinus*) and pocketed free-tailed bat (*Nyctinomops femorosaccus*).

Special-status bat species were not observed during project surveys and have a low potential to occur due to the disturbed nature of the Whitewater River and lack of surface water. Jackson Street bridge, wash banks with rocky crevices, and to a lesser degree ornamental trees, can provide roosting habitat for several special-status bats. Additional surveys should be conducted prior to construction to reconfirm if the Jackson Street bridge over CVSWC contains roosting bats and identify roosting bats.

### *Ground-Dwelling Mammal Species*

Marginal habitat for ground-dwelling mammal species was identified within the Whitewater River in the form of disturbed desert wash for the following species: Palm Springs pocket mouse (*Perognathus longimembris bangsi*), American badger (*Taxidea taxus*), Palm Springs round-tailed ground squirrel (*Xerospermophilus tereticaudus chlorus*), and pallid San Diego pocket mouse (*Chaetodipus fallax pallidus*).

Special-status mammal species were not observed during project surveys and have a low potential to occur due to the disturbed nature of the Whitewater River.

## 2.3.4.3 Environmental Consequences

### *Temporary*

### *No-Build Alternative*

The No-Build Alternative would not add impacts on special-status birds or mammals or potentially suitable habitats.

### Build Alternative 2 and 4

The project footprint for both Alternatives 2 and 4 are similar; therefore, the discussion of Alternatives 2 and 4 below is combined into a single discussion of build alternatives, since implementation of either build alternative would result in similar impacts.

#### Amphibian Species

Marginal habitat was identified within the Whitewater River in the form of disturbed desert wash for the following species: desert slender salamander (*Batrachoseps major aridus*) and arroyo toad (*Anaxyrus californicus*).

Special-status amphibian species were not observed during project surveys and have a low potential to occur due to the disturbed nature of the Whitewater River. Ongoing maintenance activities remove all vegetation within the river as well as shrub cover that special-status amphibian species rely on for their survival.

The implementation of Alternatives 2 and 4 may impact special-status amphibian species. The disturbed desert wash within the Whitewater River has marginal suitable habitat for special-status amphibian species and will be temporarily and permanently impacted as part of the construction of the Jackson Street bridge over CVSWC. Although special-status amphibian species have a low potential to occur, direct impacts may occur as individuals may be present within the work area. However, **BIO-2**, described below in Section 2.3.4.4, will avoid or minimize any potential impacts to special-status amphibian species. With implementation of BIO-2, impacts to special-status amphibian species from Alternatives 2 or 4 would be less than significant under CEQA and not adverse under NEPA.

#### Reptile Species

Marginal habitat was identified within the Whitewater River in the form of disturbed desert wash for the desert tortoise (*Gopherus agassizii*).

Desert tortoise or their sign were not observed during project surveys and have a low potential to occur due to the disturbed nature of the Whitewater River. Ongoing maintenance activities remove all vegetation within the river.

The implementation of Alternatives 2 and 4 may impact special-status reptile species. The disturbed desert wash within the Whitewater River has marginal suitable habitat for desert tortoise and will be temporarily and permanently impacted as part of the construction of the Jackson Street bridge over CVSWC. Although desert tortoise has a low potential to occur, direct impacts are not anticipated as individuals are visible and avoidable should they occur within the work area. However, **BIO-3**, described below in Section 2.3.4.4, will reduce or avoid any potential impacts to special-status reptile species. Thus the impacts would be less than significant under CEQA and not adverse under NEPA.

#### Special-Status Birds Species

Marginal habitat was identified within the Whitewater River in the form of disturbed desert wash for the following species: burrowing owl, loggerhead shrike (*Lanius ludovicianus*), black-tailed gnatcatcher (*Polioptila melanura*), Crissal thrasher (*Toxostoma crissale*) and Le Conte's thrasher (*Toxostoma lecontei*).

##### Burrowing Owl

Burrowing owl, a CDFW Species of Concern, can be found in a number of arid vegetation communities containing low-growing vegetation. Burrowing owl requires either natural burrows such as coyote or

ground squirrel burrows or artificial burrows such as pipes, culverts or debris piles for nesting. Foraging areas surrounding the burrow sites must be present.

Suitable habitat for burrowing owl was identified throughout survey area, specifically on the banks of the engineered channel of the CVSWC, where ground cover is relatively sparse and low-growing, with an abundance of small mammal burrows. During the focused surveys, special attention was placed on the detection of small fossorial mammal burrows potentially suitable for BUOW, individual owls, and any diagnostic sign of their presence (e.g., molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance).

Four active nest burrows were observed and mapped. A total of eight adult owls and nine fledglings were observed. It is possible that more fledglings were present, but hiding in the burrows. The CVSWC within the BSA is considered occupied.

The project is not expected to harm burrowing owl adjacent to the project activity as they are accustomed to a high level of human activity. Additionally, the 2012 CDFW Staff Report on Burrowing Owl Mitigation recommends restricted activity dates and setback distances by level of disturbance for burrowing owls (Caltrans 2012). However, the implementation of avoidance and minimization measures would minimize impacts to this species.

Project activities can potentially disturb nesting birds within the BSA through construction noise and lighting, staging equipment in proximity to active nests, and vegetation disturbance. If work is scheduled within 100 to 250 feet of landscaping trees or the Jackson Street bridge over CVSWC during the general avian breeding season of February 1 through September 30, nesting bird species may be directly and/or indirectly impacted.

Although the project would result in impacts to suitable foraging habitat for this species, impacts would be limited relative to the amount of suitable foraging habitat that would remain available in the BSA and immediate vicinity. Therefore, with implementation of avoidance and minimization measures **BIO-4** and **BIO-5**, identified below in Section 2.3.4.4, no compensatory mitigation would be required. Short-term construction impacts would be considered less than significant under CEQA and not adverse under NEPA.

### Loggerhead Shrike

Based on current design plans, Alternative 2 would result in approximately 6.47 acres of temporary impacts to suitable foraging/nesting habitat for loggerhead shrike. Under Alternative 4, approximately 6.38 acres of temporary impacts to suitable foraging/nesting habitat would occur. Therefore, implementation of the project has the potential to result in both direct and indirect impacts to loggerhead shrike. In addition, construction-related disturbance may have an adverse impact on this species, especially during the loggerhead shrike breeding season (March 1st to August 31st) when individuals may be attempting to incubate eggs or raise young within or adjacent to the BSA. Construction-related noise or visual disturbances may disrupt nesting activities or may cause birds to leave the area until construction is completed. In extreme cases nesting efforts may be abandoned, resulting in take of young or eggs.

Although the project would result in impacts to suitable foraging habitat for this species, impacts would be limited relative to the amount of suitable foraging habitat that would remain available in the BSA and immediate vicinity, which would result in a potentially-significant impact under CEQA and an adverse impact under NEPA. The implementation of avoidance and minimization measures **BIO-4** and **BIO-5**, identified below in Section 2.3.4.4 would reduce and minimize impacts to loggerhead shrike to the extent that no compensatory mitigation would be required. BIO-4 provides measures for the avoidance and minimization of impacts to burrowing owl, the implementation of which would have similar avoidance of

impacts for loggerhead shrike. The measures included in BIO-5 would apply to nesting activities and would avoid or minimize potential impacts to loggerhead shrike nesting. With implementation of BIO-4 and BIO-5, short-term construction impacts to loggerhead shrike would be considered less than significant under CEQA and not adverse under NEPA.

### Blacktailed Gnatcatcher

Based on current design plans, Alternative 2 would result in approximately 6.47 acres of temporary impacts to suitable foraging/nesting habitat for blacktailed gnatcatcher. Under Alternative 4, approximately 6.38 acres of temporary impacts to suitable foraging/nesting habitat would occur. Therefore, implementation of the project has the potential to result in both direct and indirect impacts to black-tailed gnatcatcher. In addition, construction-related disturbance may have an adverse impact on this species, especially during the black-tailed gnatcatcher breeding season (March 1st to August 31st) when individuals may be attempting to incubate eggs or raise young within or adjacent to the BSA. Construction-related noise or visual disturbances may disrupt nesting activities or may cause birds to leave the area until construction is completed. In extreme cases nesting efforts may be abandoned, resulting in take of young or eggs.

Although the project would result in impacts to suitable foraging habitat for this species, impacts would be limited relative to the amount of suitable foraging habitat that would remain available in the BSA and immediate vicinity. Therefore, with implementation of avoidance and minimization measures **BIO-4** and **BIO-5**, identified below in Section 2.3.4.4, no compensatory mitigation would be required. BIO-4 provides measures for the avoidance and minimization of impacts to burrowing owl, the implementation of which would have similar avoidance of impacts for blacktailed gnatcatcher. The measures included in BIO-5 would apply to nesting activities and would avoid or minimize potential impacts to loggerhead shrike nesting. With implementation of BIO-4 and BIO-5, short-term construction impacts would be considered less than significant under CEQA and not adverse under NEPA.

### Southwestern Willow Flycatcher

Due to a lack of suitable nesting habitat within the BSA, no direct or indirect impacts to nesting vermilion flycatcher are anticipated to occur as a result of the project. No impacts are expected for this species, and thus there will be no impact under CEQA and not adverse under NEPA.

### Yuma Clapper Rail

Due to a lack of suitable nesting habitat within the BSA, no direct or indirect impacts to nesting vermilion flycatcher are anticipated to occur as a result of the project. No impacts are expected for this species, and thus there will be no impact under CEQA and not adverse under NEPA.

### Crissal Thrasher

Based on current design plans, Alternative 2 would result in approximately 6.47 acres of temporary impacts to suitable foraging/nesting habitat for Crissal thrasher. Under Alternative 4, approximately 6.38 acres of temporary impacts to suitable foraging/nesting habitat would occur. Therefore, implementation of the project has the potential to result in both direct and indirect impacts to Crissal thrasher. In addition, construction-related disturbance may have an adverse impact on this species, especially during the Crissal thrasher breeding season (January 15th to June 15th) when individuals may be attempting to incubate eggs or raise young within or adjacent to the BSA. Construction-related noise or visual disturbances may disrupt nesting activities or may cause birds to leave the area until construction is completed. In extreme cases nesting efforts may be abandoned, resulting in take of young or eggs.

Although the project would result in impacts to suitable foraging habitat for this species, impacts would be limited relative to the amount of suitable foraging habitat that would remain available in the BSA and immediate vicinity. Therefore, with implementation of avoidance and minimization measures **BIO-4** and **BIO-5**, identified below in Section 2.3.4.4, no compensatory mitigation would be required.

Short-term construction impacts would be considered less than significant under CEQA and not adverse under NEPA.

#### Le Conte's Thrasher

Based on current design plans, Alternative 2 would result in approximately 6.47 acres of temporary impacts to suitable foraging/nesting habitat for Le Conte's thrasher. Under Alternative 4, approximately 6.38 acres of temporary impacts to suitable foraging/nesting habitat would occur. Therefore, implementation of the project has the potential to result in both direct and indirect impacts to Le Conte's thrasher. In addition, construction-related disturbance may have an adverse impact on this species, especially during the Le Conte's thrasher breeding season (January 15th to June 15th) when individuals may be attempting to incubate eggs or raise young within or adjacent to the BSA. Construction-related noise or visual disturbances may disrupt nesting activities or may cause birds to leave the area until construction is completed. In extreme cases nesting efforts may be abandoned, resulting in take of young or eggs.

Although the project would result in impacts to suitable foraging habitat for this species, impacts would be limited relative to the amount of suitable foraging habitat that would remain available in the BSA and immediate vicinity. Therefore, with implementation of avoidance and minimization measures **BIO-4** and **BIO-5**, identified below in Section 2.3.4.4, no compensatory mitigation would be required.

Short-term construction impacts would be considered less than significant under CEQA and not adverse under NEPA.

### *Special-Status Mammal Species*

#### Pallid Bat, Spotted Bat, and Western Yellow Bat

Based on current design plans, Alternative 2 would result in approximately 6.47 acres of temporary impacts to suitable foraging habitat for the pallid bat, spotted bat, and the western yellow bat. Under Alternative 4, approximately 6.38 acres of temporary impacts to suitable foraging habitat would occur. Due to a lack of suitable roosting habitat within the BSA, no direct impacts to these bat species are anticipated to occur as a result of project implementation. Construction-related noise or visual disturbances during non-daylight hours may result in indirect impacts to individuals that may be attempting to forage within and adjacent to the BSA, which would result in a potentially-significant impact under CEQA and an adverse impact under NEPA. The implementation of avoidance and minimization measure **BIO-6** identified below in Section 2.3.4.4 would ensure that impacts are minimized and avoided and no compensatory mitigation would be required. With implementation of **BIO-6**, short-term construction impacts to pallid bat, spotted bat, and western yellow bat would be considered less than significant under CEQA and not adverse under NEPA.

#### American Badger

Based on current design plans, Alternative 2 would result in approximately 6.47 acres of temporary impacts to suitable foraging and denning habitat for American badger. Under Alternative 4, approximately 6.38 acres of temporary impacts to suitable foraging and denning habitat would occur. Therefore, implementation of the project has the potential to result in direct impacts to American badgers that may be located within the BSA. In addition, construction-related noise or visual disturbances may

result in indirect impacts to individuals that may be attempting to raise young within close proximity to the BSA. Construction-related noise or visual disturbances may disrupt active dens or may cause badgers to leave their den resulting in the loss of young.

Although the project would result in impacts to suitable foraging habitat for this species, impacts would be limited relative to the amount of suitable foraging habitat that would remain available in the BSA and immediate vicinity. Implementation of avoidance and minimization measure **BIO-7** described below in Section 2.3.4.4 would ensure that impacts are minimized and avoided and no compensatory mitigation would be required. Short-term construction impacts would be considered less than significant under CEQA and not adverse under NEPA.

### Palm Springs Round-Tailed Ground Squirrel

Based on current design plans, Alternative 2 would result in approximately 6.47 acres of temporary impacts to suitable foraging and denning habitat for Palm Springs round-tailed ground squirrel. Under Alternative 4, approximately 6.38 acres of temporary impacts to suitable foraging and denning habitat would occur. Therefore, implementation of the project has the potential to result in direct impacts to Palm Springs round-tailed ground squirrel that may be located within the BSA. In addition, construction-related noise or visual disturbances may result in indirect impacts to individuals that may be attempting to raise young within close proximity to the BSA.

Although the project would result in impacts to suitable foraging habitat for this species, impacts would be limited relative to the amount of suitable foraging habitat that would remain available in the BSA and immediate vicinity. Implementation of avoidance and minimization measure **BIO-7** described below in Section 2.3.4.4 would ensure that impacts are minimized and avoided and no compensatory mitigation would be required. Short-term construction impacts would be considered less than significant under CEQA and not adverse under NEPA.

### Palm Springs Pocket Mouse

Based on current design plans, Alternative 2 would result in approximately 6.47 acres of temporary impacts to suitable foraging and denning habitat for Palm Springs pocket mouse. Under Alternative 4, approximately 6.38 acres of temporary impacts to suitable foraging and denning habitat would occur. Therefore, implementation of the project has the potential to result in direct impacts to Palm Springs pocket mouse that may be located within the BSA. In addition, construction-related noise or visual disturbances may result in indirect impacts to individuals that may be attempting to raise young within close proximity to the BSA.

Although the project would result in impacts to suitable foraging habitat for this species, impacts would be limited relative to the amount of suitable foraging habitat that would remain available in the BSA and immediate vicinity. Implementation of avoidance and minimization measure **BIO-7** described below in Section 2.3.4.4 would ensure that impacts are minimized and avoided and no compensatory mitigation would be required. Short-term construction impacts would be considered less than significant under CEQA and not adverse under NEPA.

### Pallid San Diego Pocket Mouse

Based on current design plans, Alternative 2 would result in approximately 6.47 acres of temporary impacts to suitable foraging and denning habitat for pallid San Diego pocket mouse. Under Alternative 4, approximately 6.38 acres of temporary impacts to suitable foraging and denning habitat would occur. Therefore, implementation of the project has the potential to result in direct impacts to pallid San Diego pocket mouse that may be located within the BSA. In addition, construction-related noise or visual

disturbances may result in indirect impacts to individuals that may be attempting to raise young within close proximity to the BSA.

Although the project would result in impacts to suitable foraging habitat for this species, impacts would be limited relative to the amount of suitable foraging habitat that would remain available in the BSA and immediate vicinity. Implementation of avoidance and minimization measure **BIO-7** described below in Section 2.3.4.4 would ensure that impacts are minimized and avoided and no compensatory mitigation would be required. Short-term construction impacts would be considered less than significant under CEQA and not adverse under NEPA.

### ***Permanent***

#### *No-Build Alternative*

The implementation of the No-Build Alternative will not impact special-status animal species as existing conditions at the I-10/Jackson Street interchange will remain intact and there will be no improvements made to the interchange, I-10 mainline and along Jackson Street.

#### *Build Alternatives 2 and 4*

The project footprint for both Alternatives 2 and 4 are similar; therefore, the discussion of Alternatives 2 and 4 below is combined into a single discussion of build alternatives, since implementation of either build alternative would result in similar impacts.

##### *Amphibian Species*

Marginal habitat was identified within the Whitewater River in the form of disturbed desert wash for the following species: desert slender salamander (*Batrachoseps major aridus*) and arroyo toad (*Anaxyrus californicus*).

Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) under Build Alternative 2, or 0.91 acre under Build Alternative 4. Given the small footprint of permanent impact to suitable habitat, the impact to amphibian species would be less than significant under CEQA and not adverse under NEPA.

##### *Reptile Species*

Marginal habitat was identified within the Whitewater River in the form of disturbed desert wash for the following species: desert tortoise (*Gopherus agassizii*).

Impacts to suitable habitat for desert tortoise would include the permanent loss of 0.78 acre of desert wash (disturbed) under Build Alternative 2, or 0.91 acre under Build Alternative 4. Given the small footprint of permanent impact to suitable habitat, the impact to reptile species would be less than significant under CEQA and not adverse under NEPA.

##### *Special-Status Birds Species*

Marginal habitat was identified within the Whitewater River in the form of disturbed desert wash for the following species: loggerhead shrike (*Lanius ludovicianus*), black-tailed gnatcatcher (*Polioptila melanura*), Crissal thrasher (*Toxostoma crissale*) and Le Conte's thrasher (*Toxostoma lecontei*).

###### Burrowing Owl

Burrowing owl, a CDFW Species of Concern, can be found in a number of arid vegetation communities containing low-growing vegetation. Burrowing owl requires either natural burrows such as coyote or

ground squirrel burrows or artificial burrows such as pipes, culverts or debris piles for nesting. Foraging areas surrounding the burrow sites must be present.

Suitable habitat was identified within the Whitewater River in the form of disturbed desert wash for burrowing owl (Athene cunicularia). Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) under Build Alternative 2, or 0.91 acre under Build Alternative 4. Given the small permanent impact to suitable habitat, the impact is less than significant under CEQA and not adverse under NEPA.

#### Loggerhead Shrike

Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) under Build Alternative 2, or 0.91 acre under Build Alternative 4. Given the small permanent impact to suitable habitat, the impact is less than significant under CEQA and not adverse under NEPA.

#### Blacktailed Gnatcatcher

Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) under Build Alternative 2, or 0.91 acre under Build Alternative 4. Given the small permanent impact to suitable habitat, the impact is less than significant under CEQA and not adverse under NEPA.

#### Southwestern Willow Flycatcher

Due to a lack of suitable nesting habitat within the BSA, no direct or indirect impacts to nesting vermilion flycatcher are anticipated to occur as a result of the project. No impacts are expected for this species, and thus there will be no impact under CEQA and not adverse under NEPA.

#### Yuma Clapper Rail

Due to a lack of suitable nesting habitat within the BSA, no direct or indirect impacts to nesting vermilion flycatcher are anticipated to occur as a result of the project. No impacts are expected for this species, and thus there will be no impact under CEQA and not adverse under NEPA.

#### Crissal Thrasher

Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) under Build Alternative 2, or 0.91 acre under Build Alternative 4. Given the small permanent impact to suitable habitat, the impact is less than significant under CEQA and not adverse under NEPA.

#### Le Conte's Thrasher

Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) under Build Alternative 2, or 0.91 acre under Build Alternative 4. Given the small permanent impact to suitable habitat, the impact is less than significant under CEQA and not adverse under NEPA.

### *Special-Status Mammal Species*

#### Pallid Bat, Spotted Bat and Western Yellow Bat

Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) under Build Alternative 2, or 0.91 acre under Build Alternative 4. Given the small permanent impact to suitable habitat, the impact is less than significant under CEQA and not adverse under NEPA.

#### American Badger

Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) under Build Alternative 2, or 0.91 acre under Build Alternative 4. Although the project would result in impacts to suitable foraging habitat for this species, impacts would be limited relative to the amount of suitable foraging habitat that would remain available in the BSA and immediate vicinity. Given the small permanent impact to suitable habitat, the impact is less than significant under CEQA and not adverse under NEPA.

#### Palm Springs Round-Tailed Ground Squirrel

Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) under Build Alternative 2, or 0.91 acre under Build Alternative 4. Although the project would result in impacts to suitable foraging habitat for this species, impacts would be limited relative to the amount of suitable foraging habitat that would remain available in the BSA and immediate vicinity. Given the small permanent impact to suitable habitat, the impact is less than significant under CEQA and not adverse under NEPA.

#### Palm Springs Pocket Mouse

Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) under Build Alternative 2, or 0.91 acre under Build Alternative 4. Although the project would result in impacts to suitable foraging habitat for this species, impacts would be limited relative to the amount of suitable foraging habitat that would remain available in the BSA and immediate vicinity. Given the small permanent impact to suitable habitat, the impact is less than significant under CEQA and not adverse under NEPA.

#### Pallid San Diego Pocket Mouse

Impacts to suitable habitat include the permanent loss of 0.78 acre of desert wash (disturbed) under Build Alternative 2, or 0.91 acre under Build Alternative 4. Although the project would result in impacts to suitable foraging habitat for this species, impacts would be limited relative to the amount of suitable foraging habitat that would remain available in the BSA and immediate vicinity. Given the small permanent impact to suitable habitat, the impact is less than significant under CEQA and not adverse under NEPA.

### 2.3.4.4 Avoidance, Minimization, and/or Mitigation Measures

The following measures would be implemented in order to ensure impacts are avoided and minimized:

**BIO-2:** Project activities within the Whitewater River should be timed to begin immediately after maintenance activities conducted by the CVWD, if possible, to reduce the potential for impacts to special-status amphibian species. Alternatively, pre-construction surveys for special-status amphibian species should be conducted within 48 hours of the start of project activities within the Whitewater River. Prior to construction, designating environmentally sensitive areas with ESA fencing should be used to mark the boundary of the work area within the Whitewater River. In addition, agency-approved fencing should be installed around the work area to prevent special-status amphibian species from entering the work area. Fencing should be checked on a weekly basis and maintained to agency standards. If a special-status amphibian species is observed within the work area, it should be avoided and all activities should stop within the immediate area until the individual moves out of the work area. If the individual needs to be relocated, the Resource Agencies shall be consulted to discuss the appropriate method for relocation.

**BIO-3:** Project activities within the Whitewater River should be timed to begin immediately after maintenance activities conducted by the CVWD, if possible, to reduce the potential for impacts to desert tortoise. Alternatively, pre-construction surveys for desert tortoise should be conducted within 48 hours of the start of project activities within the Whitewater River. Prior to construction, designating environmentally sensitive areas with ESA fencing should be used to mark the boundary of the work area within the Whitewater River. If a desert tortoise is observed within the work area, it should be avoided and all activities should stop until the individual moves out of harm's way or out of the work area. If the individual needs to be relocated, the Resource Agencies shall be consulted to discuss the appropriate method for relocation. Specific measures to protect desert tortoise are included in the CVMSHCP.

**BIO-4:** Environmental awareness training is recommended for all staff and construction crews to indicate the local sensitivity of the area relative to the burrowing owl and other special-status species with potential to occur. The training should include a description of the species and its habitat, identification, regulatory status, penalties for harming the owl, and protocols to follow if burrowing owl are detected on-site. Training should be carried out by a qualified biologist who is familiar with the life history of the burrowing owl. In addition, pre-construction surveys following the 2012 CDFW Staff Report on Burrowing Owl Mitigation should be conducted to identify owls in or within close proximity to project activities. Should owls be observed, measures to avoid or minimize impacts including non-disturbance buffers and/or burrow exclusion should be implemented and should follow the 2012 Staff Report setback distances by level of disturbance. Specific measures to protect burrowing owl are included in the CVMSHCP.

**BIO-5:** Since construction of the project may potentially impact nesting resident and migratory birds, avoidance and minimization measures are recommended to decrease potential impacts to nesting birds. It is recommended that construction activity occur outside of the nesting season, which typically extends from February 1 through September 30, but can vary based on seasonal conditions. If construction activity must proceed during the nesting season, a preconstruction nesting bird survey must be conducted within 3 days prior to ground-disturbing activities. If an active nest is observed, a qualified biologist will determine an appropriate buffer size to avoid impacts to the nest. Buffer size would be dependent upon such factors as species of bird, existing disturbances, and level of disturbance of project activity. If no active nests are observed during the preconstruction survey, construction activity would have no effect on nesting resident and migratory birds and no further measures are required. Specific measures to protect Crissal thrasher and LeConte's thrasher are included in the CVMSHCP.

**BIO-6:** It is recommended that construction activities occur outside of the bat maternity roosting season, which typically extends from April 1 through August 30, but can vary based on seasonal conditions. If construction activity must proceed during the maternity roosting season, a pre-construction roosting bat survey must be conducted by a qualified biologist within 3 days of ground-disturbing activities. If an active roost is observed or detected, a qualified biologist should determine an appropriate buffer size and delineate the buffer using ESA fencing. If no active bat roosts are observed, construction activity would have no effect on roosting bats and no further measures are required.

**BIO-7:** Project activities within the Whitewater River should be timed to begin immediately after maintenance activities conducted by the CVWD, if possible, to reduce the potential for impacts to special-status mammal species. Alternatively, pre-construction surveys for special-status mammal species should be conducted within 3 days of the start of project activities

within the Whitewater River. Prior to construction, ESA fencing should be used to mark the boundary of the work area within the Whitewater River. If a special-status mammal species is observed within the work area, it should be avoided and all activities should stop within the immediate area until the individual moves out of the work area. If the individual needs to be relocated, the Resource Agencies shall be consulted to discuss the appropriate method for relocation. Specific measures to protect Palm Springs pocket mouse are included in the CVMSHCP.

## 2.3.5 Threatened and Endangered Species

### 2.3.5.1 Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 United States Code (USC) Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. This act and later amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration (FHWA) (and the Department, as assigned), are required to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service) to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a Biological Opinion with an Incidental Take statement or a Letter of Concurrence. Section 3 of FESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

California has enacted a similar law at the state level, the California Endangered Species Act (CESA), California Fish and Game Code Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The California Department of Fish and Wildlife (CDFW) is the agency responsible for implementing CESA. Section 2080 of the California Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by CDFW. For species listed under both FESA and CESA requiring a Biological Opinion under Section 7 of FESA, the CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Game Code.

Another federal law, the Magnuson-Stevens Fishery Conservation and Management Act of 1976, was established to conserve and manage fishery resources found off the coast, as well as anadromous species and Continental Shelf fishery resources of the United States, by exercising (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species, Continental Shelf fishery resources, and fishery resources in special areas.

### 2.3.5.2 Affected Environment

Information used in this section is based on the *I-10/Jackson Street Interchange Improvement Project Natural Environment Study/Minimal Impacts* (NES/MI), dated July 2019 (ESA 2019).

#### *Agency Coordination and Professional Contacts*

To date there has been no communication with the USFWS or with the National Oceanic and Atmospheric Administration's (NOAA's) Fisheries regarding the FESA. A USFWS Species List was generated from the IPaC database on August 13, 2020. According to the IPaC species list, a total of six federally-listed threatened or endangered plant or animal species have the potential to occur within the vicinity of the BSA. Further, seven additional federally-listed species were identified by the CNDDB and CNPS queries as having the potential to occur within the vicinity of the BSA.

To date there has been no coordination with the CDFW regarding the CESA. According to the CNDDB and CNPS queries, a total of eight state-listed threatened or endangered plant or animal species have the potential to occur within the vicinity of the BSA. No state-listed plant or animal species were observed within the BSA during the habitat assessment conducted for the project alternatives.

Table 2-61 provides a list of all special-status species reviewed for the project, along with a summary of the habitat requirements for each species. The table also provides the federal and/or state status and determination statements for federal listed species identified in the USFWS Species List and state listed species identified in the CNDDB Species List shown below.

### *Critical Habitat*

Critical Habitat refers to the specific areas within the geographical area of a species, at the time it is listed, which include those physical or biological features that are essential to the survival and eventual recovery of a special-status species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present or not.

All federal agencies are required to consult with the USFWS regarding activities they authorize, fund, or permit which may affect a federally-listed species or its designated Critical Habitat. The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the federally-listed species or adversely modify or destroy its designated Critical Habitat. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highways Administration or a CWA Section 404 permit from the USACE). If there is a federal nexus, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS.

The BSA is not located within federally-designated Critical Habitat. Therefore, consultation with USFWS would not be required for the loss or adverse modification of Critical Habitat.

## 2.3.5.3 Environmental Consequences

### *Temporary*

#### *No-Build Alternative*

The No-Build Alternative is not expected to affect threatened and endangered plant or animal species because these species were confirmed absent from the study area and there would be no change from existing conditions.

#### *Build Alternatives 2 and 4*

The project footprint for both Alternatives 2 and 4 are similar; therefore, the discussion of Alternatives 2 and 4 below is combined into a single discussion of build alternatives, since implementation of either build alternative would result in similar impacts

No federally-listed plant or animal species were observed within the BSA during the habitat assessment. Based on the results of the habitat assessment, all federally-listed plant or animal species are presumed absent from the BSA and would not be directly or indirectly impacted from implementation of the project due to a lack of suitable habitat and recorded occurrences by the CNDDB. As such, the project is determined to have no effect on any federally-listed species identified by the USFWS Species List, CNDDB, or CNPS (refer to Table 2-61). Therefore, no additional mitigation or consultation with USFWS pursuant to the FESA would be required.

**Table 2-61 Effects Determination for both State and Federal Listed Species Identified in the USFWS and CNDDB species lists**

| Scientific name / Common Name | Status | | General Habitat Requirements | Effects Determination | Reason for Determination |
|---|---|---|---|---|---|
| | USFWS | CDFW | | | |
| **Birds** | | | | | |
| *Empidonax trailii extimus* southwestern willow flycatcher | FE | SE | Uncommon summer resident of southern California. Occurs in riparian woodlands in southern California. Typically requires large areas of willow thickets in broad valleys, canyon bottoms, or around ponds and lakes. These areas typically have standing or running water or are at least moist. | No Effect / No Take | There is no suitable nesting habitat within or adjacent to the BSA. The desert wash habitat within the CVSC is routinely maintained and lacks the preferred density and structure of plant species required for nesting. Therefore, it was determined that "No Effect" to southwestern willow flycatcher would occur. |
| *Rallus longirostris yumanensis* Yuma clapper rail | FE | ST, FP | Rare yearlong resident of southern California. Restricted to the Salton Sea and immediate surrounding habitats. Generally found in freshwater and alkali marshes dominated by stands of emergent vegetation interspersed with areas of open water and drier upland benches. Prefers mature marsh stands along margins of shallow ponds with stable water levels. | No Effect / No Take | There is no suitable habitat within or adjacent to the BSA. The desert wash habitat within the CVSC is exposed to a high-level of routine maintenance and does not provide suitable nesting habitat. Further, the BSA is located outside of the current distribution and there have been no recorded occurrences of this species within the Indio, La Quinta, Myoma, and West Berdoo Canyon quadrangles by the CNDDB. Therefore, it was determined that "No Effect" to Yuma clapper rail would occur. |
| *Vireo bellii pusillus* least Bell's vireo | FE | SE | Uncommon summer resident of southern California. Prefers riparian habitat in close proximity to waterbodies that typically feature a dense, stratified canopy. Species is typically associated with southern willow scrub, cottonwood-willow forest, mulefat scrub, sycamore alluvial woodlands, coast live oak riparian forest, willow riparian forest, or mesquite in desert regions. Preferred nesting habitat typically consists of a well-developed over-story and understory, along with low densities of aquatic and herbaceous plant cover. The understory frequently contains dense sub-shrub or shrub thickets that are often dominated by plants such as willow, mulefat, and one or more herbaceous species. | No Effect / No Take | There is no suitable nesting habitat within or adjacent to the BSA. The desert wash habitat within the CVSC is routinely maintained and lacks the preferred density and structure of plant species required for nesting. Further, there have been no recorded occurrences of this species within the Indio, La Quinta, Myoma, and West Berdoo Canyon quadrangles by the CNDDB. Therefore, it was determined that "No Effect" to least Bell's vireo would occur. |
| *Rallus obsoletus yumanensls* Yuma Ridgeway's rail | FE | ST | Marsh resident; primarily dense cattail or cattail-bulrush. Freshwater and alkali marshes. Nest sites selected by this subspecies are near upland areas in shallow sites dominated by mature vegetation, often in the base of a shrub. | No Effect / No Take | No suitable habitat occurs within or adjacent to the BSA. The CVSC was dry during the habitat assessment and most likely does not support standing water for long periods of time that would be sufficient enough to support populations of fish. Native fish are presumed absent from the BSA. Therefore, it was determined that "No Effect" to Yuma clapper rail would occur. |

| Scientific name<br>Common Name | Status<br>USFWS | <br>CDFW | General Habitat Requirements | Effects Determination | Reason for Determination |
|---|---|---|---|---|---|
| **Fish** | | | | | |
| *Cyprinodon macularius*<br>Desert pupfish | FE | SE | Naturally occurring populations of desert pupfish have been extirpated in Arizona, but still occur in the Salton Sink Basin and Colorado River Delta. Can be found in the Salton Sea and nearby shoreline pools, freshwater ponds and irrigation drains, as well as in portions of creeks/washes that are tributary to the Salton Sea. Can tolerate salinities ranging from freshwater to 68-70 parts per thousand (ppt), water temperatures as high as 108°F and oxygen levels down to 0.1 parts per million (ppm). | No Effect / No Take | No suitable habitat occurs within or adjacent to the BSA. The CVSC was dry during the habitat assessment and most likely does not support standing water for long periods of time that would be sufficient enough to support populations of fish. Native fish are presumed absent from the BSA. Therefore, it was determined that “No Effect” to desert pupfish would occur. |
| *Xyrauchen texanus*<br>Razorback sucker | FE | SE | This is a large river species not found in smaller tributaries and headwater streams. Found in water from 4-10 feet in depth, adults are associated with areas of strong current and backwaters. Many specimens taken in recent years are from off-stream impoundments and reservoirs. Found historically throughout the Colorado River Drainage, this fish has become very rare above the Grand Canyon. In Colorado, recent specimens have been taken only from the lower, mainstem Colorado, Gunnison, lower Yampa and Green rivers. | No Effect / No Take | No suitable habitat occurs within or adjacent to the BSA. The CVSC was dry during the habitat assessment and most likely does not support standing water for long periods of time that would be sufficient enough to support populations of fish. Native fish are presumed absent from the BSA. Therefore, it was determined that “No Effect” to razorback sucker would occur. |
| **Insects** | | | | | |
| *Dinacoma caseyi*<br>Casey's June beetle | FE | - | All Dinacoma populations are associated with alluvial sediments occurring in or contiguous with bases of desert alluvial fans, and the broad, gently sloping, depositional surfaces at the base of the Santa Rosa mountain ranges in the dry Coachella valley region. Most commonly associated with the Carsitas series soil. | No Effect / No Take | There is marginal suitable habitat that occurs within or adjacent to the BSA. Therefore, it was determined that “No Effect” to Casey’s June beetle would occur. |
| **Mammals** | | | | | |
| *Ovis Canadensis nelsoni pop. 2*<br>Peninsular bighorn sheep DPS | FE | SE | A medium-size bovid with a muscular body, with thick neck. The peninsular bighorn sheep (Ovis canadensis pop. 2) is restricted to east facing, lower elevation slopes (typically below 4,600 feet) of the Peninuslar Ranges along the northwest edge of the Sonoran Desert in southern California. | No Effect / No Take | No suitable habitat occurs within or adjacent to the BSA. Therefore, it is determined that “No Effect” to Peninsular bighorn sheep would occur. |

| **Scientific name**<br>**Common Name** | **Status**<br>**USFWS** | **CDFW** | **General Habitat Requirements** | **Effects Determination** | **Reason for Determination** |
|---|---|---|---|---|---|
| *Puma concolor*<br>mountain lion | - | SC | Large, slender cats with short, muscular limbs and a long tail about one third of the animal's total length. Historically, mountain lions occurred in elevations ranging from sea level to about 4,000m in habitats including dense forests, dry deserts, savannahs, and swamplands. In North America, they currently occur in 15 western states and Florida, and have been mostly pushed into mountainous and relatively unpopulated areas, except for a few occurrences in more urban areas. | No Effect / No Take | No suitable habitat occurs within or adjacent to the BSA. Therefore, it is determined that "No Effect" to mountain lion would occur. |
| **Reptiles** | | | | | |
| *Gopherus agassizii*<br>desert tortoise | FT | ST | Occurs in desert scrub, desert wash, and Joshua tree habitats with friable, sandy, well-drained soils for nest and burrow construction. Highest densities occur in creosote bush scrub with extensive annual wildflower blooms and succulents with little to no non-native plant species. | No Effect / No Take | There is marginal suitable habitat that occurs within or adjacent to the BSA. Therefore, it was determined that "No Effect" to desert tortoise would occur. |
| *Batrachoseps major aridus*<br>Desert slender salamander | FT | SE | Desert wash, Limestone, Talus slope. Known only from Hidden Palm Canyon and Guadalupe Creek, Riverside County, in barren, palm oasis, desert wash, and desert scrub. Occurs under limestone sheets, rocks, and talus, usually at the base of damp, shaded, north and west-facing walls. | No Effect / No Take | No suitable habitat occurs within or adjacent to the BSA. Therefore, it was determined that "No Effect" to desert slender salamander would occur. |
| *Uma inornata*<br>Coachella Valley fringe-toed lizard | FE | SE | Sparsely-vegetated arid areas with fine wind-blown sand, including dunes, washes, alkali scrub, and flats with sandy hummocks formed around the bases of vegetation. Requires fine, loose, wind-blown sand for burrowing. | No Effect / No Take | No suitable habitat occurs within or adjacent to the BSA. Therefore, it was determined that "No Effect" to Coachella Valley fringe-toed lizard would occur. |
| **Flowering Plants** | | | | | |
| *Astragalus lentiginosus* var. *coachellae*<br>Coachella Valley milk-vetch | FE | - | Occurs in dunes and sandy flats along disturbed margins of sandy washes and in sandy soils along roadsides adjacent to existing sand dunes. May also occur in sandy substrates in creosote bush scrub. Found at elevations ranging from 130 to 2,150 feet above msl. Blooming period is February to May. | No Effect / No Take | There is marginal suitable habitat that occurs within or adjacent to the BSA. Habitat within the BSA is generally disturbed and/or comprised of commercial, and residential land uses. Additionally, the CVSC is routinely maintained which limits the potential for this species to occur. Therefore, it was determined that "No Effect" to Coachella Valley milk-vetch would occur. |

| **Scientific name**<br>**Common Name** | **Status** | | **General Habitat Requirements** | **Effects Determination** | **Reason for Determination** |
|---|---|---|---|---|---|
| | **USFWS** | **CDFW** | | | |
| *Astragalus tricarinatus*<br>triple-ribbed milk-vetch | FE | - | Found in sandy or gravelly soils within Joshua tree woodland and Sonoran Desert scrub habitats. Found at elevations ranging from 1,476 to 3,904 feet above msl. Blooming period is from February to May. | No Effect / No Take | There is marginal suitable habitat that occurs within or adjacent to the BSA. Habitat within the BSA is generally disturbed and/or comprised of commercial, and residential land uses. Additionally, the CVSC is routinely maintained which limits the potential for this species to occur. Therefore, it was determined that "No Effect" to triple-ribbed milk-vetch would occur. |
| *Yucca brevifolia*<br>Joshua Tree | - | SC | Generally occur on silty, loamy, or sandy soils with minimal runoff and generally on flats, mesas, bajadas, and gentle slopes (alluvial fans). They can be found in many different plant alliances throughout their range. Distribution records indicate an elevation range from 2,461ft to 7,218 feet. Flowering is episodic and rare, generally occurring only in wetter years. Joshua trees have an obligate pollination mutualism with yucca moths. | No Effect / No Take | There is marginal suitable habitat that occurs within or adjacent to the BSA. Habitat within the BSA is generally disturbed and/or comprised of commercial, and residential land uses. Additionally, the CVSC is routinely maintained which limits the potential for this species to occur. Therefore, it was determined that "No Effect" to Joshua tree would occur. |

USFWS
FE – Federally Endangered
FT – Federally Threatened

CDFW
SE – State Endangered
ST – State Threatened
SC – State Candidate
FP – Fully Protected

Sources: CDFW 2018; USFWS 2018a

Additionally, the BSA is not located within federally designated Critical Habitat and consultation with USFWS pursuant to the FESA for the loss or adverse modification to Critical Habitat would not be required.

***Permanent***

*No-Build Alternative*

Long-term operation of the No-Build Alternative is not expected to affect threatened or endangered plant or animal species because these species were confirmed absent from the study area and there would be no change from existing conditions.

*Build Alternatives 2 and 4*

The project footprint for both Alternatives 2 and 4 are similar; therefore, the discussion of Alternatives 2 and 4 below is combined into a single discussion of build alternatives, since implementation of either build alternative would result in similar impacts.

As mentioned previously, all federally listed plant or animal species are presumed absent from the BSA and would not be directly or indirectly impacted from implementation of the project due to a lack of suitable habitat and recorded occurrences by the CNDDB. As such, the proposed project is determined to have no effect on any federally listed species identified by the USFWS Species List, CNDDB, or CNPS. Therefore, no additional mitigation or consultation with USFWS pursuant to the FESA would be required.

### 2.3.5.4 Avoidance, Minimization, and/or Mitigation Measures

No threatened or endangered plant or animal species were found; therefore, avoidance and minimization measures are not necessary. No compensatory mitigation is necessary.

## 2.3.6 Invasive Species

### 2.3.6.1 Regulatory Setting

On February 3, 1999, President William J. Clinton signed Executive Order (EO) 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as "any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health." Federal Highway Administration (FHWA) guidance issued August 10, 1999 directs the use of the State's invasive species list, maintained by the California Invasive Species Council to define the invasive species that must be considered as part of the National Environmental Policy Act (NEPA) analysis for a proposed project.

### 2.3.6.2 Affected Environment

Information used in this section is based on the *I-10/Jackson Street Interchange Improvement Project Natural Environment Study/Minimal Impacts* (NES/MI), dated July 2019 (ESA 2019).

Ten invasive species were observed within the BSA and are included in Table 2-62, along with their California Invasive Plant Council (Cal-IPC) status.

**Table 2-62 Invasive Species Observed**

| Species | Cal-IPC Rating |
|---|---|
| Giant reed (*Arundo donax*) | High |
| Asian mustard (*Brassica tournefortiil*) | High |
| Saltcedar (*Tamarix ramosissima*) | High |
| Shortpod mustard (*Hirschfeldia incana*) | Moderate |
| Mexican fan palm (*Washingtonia robusta*) | Moderate |
| Castor bean (*Ricinus communis*) | Limited |
| Russian thistle (*Salsola tragus*) | Limited |
| London Rocket (*Sisymbrium irio*) | Limited |
| Athel (*Tamarix aphylla*) | Limited |
| Puncture vine (*Tribulus terrestris*) | Limited |
| Source: ESA, 2019 | |

Noxious weeds would be managed in accordance with both Caltrans Highway Design Manual topic 110.5 "Control of Noxious Weeds--Exotic and Invasive Species" and EO 13112 (Invasive Species) and by methods approved by the Department's landscape architect and/or vegetation control specialist. The project would not introduce, transport, or spread invasive species and would not change the surrounding habitat to encourage immigration of invasive species to the site.

### 2.3.6.3 Environmental Consequences

#### *Temporary*

*No-Build Alternative*

Under the No-Build Alternative, no temporary impacts from invasive species would occur because it would not change existing conditions.

*Build Alternatives 2 and 4*

The project footprint for both Alternatives 2 and 4 are similar; therefore, the discussion of Alternatives 2 and 4 below is combined into a single discussion of build alternatives, since implementation of either build alternative would result in similar impacts.

Under Alternatives 2 and 4, project equipment and vehicles may import invasive plant materials and seed into the project area. Importing invasive species into the BSA could pose a risk to the native plant species that may be indirectly impacted downstream. Furthermore, adding more trash and debris to the project site would reduce the quality of the soil conditions. Alternatives 2 and 4 would implement the Departments' Standard Best Management Practices (BMPs) and 2018 Standard Specifications (or latest version) to prevent the importation of invasive plant materials and further degradation of vegetation communities. As a result, Alternatives 2 and 4 would not be anticipated to import or spread of invasive species. Therefore, impacts are considered less than significant under CEQA and not adverse under NEPA.

#### *Permanent*

*No-Build Alternative*

Under the No-Build Alternative, no permanent impacts from invasive species would occur because there would be no change to existing conditions.

*Build Alternatives 2 and 4*

The project footprint for both Alternatives 2 and 4 are similar; therefore, the discussion of Alternatives 2 and 4 below is combined into a single discussion of build alternatives, since implementation of either build alternative would result in similar impacts.

Although the transport of invasive plant species is a real threat to ecosystems, the Build Alternatives would not increase the risk of transport of invasive species above the existing baseline. Avoidance and minimization measure **BIO-8** would further avoid any impacts from invasive species. For this reason, permanent impacts related to invasive species are considered less than significant under CEQA and not adverse under NEPA.

### 2.3.6.4 Avoidance, Minimization, and/or Mitigation Measures

Implementation of the following avoidance and minimization measure would ensure temporary impacts from invasive species would not occur.

**BIO-8:** All construction equipment will be inspected and cleaned prior to use in the project footprint to minimize the importation of non-native plant material. All mulch, topsoil, and seed mixes used during post-construction landscaping activities and erosion control BMPs will be free of invasive plant species propagules. A weed abatement program will be implemented should invasive plant species colonize the area within the project footprint post-construction.

# 2.4 Cumulative Impacts

## 2.4.1 Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of the proposed project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

The California Environmental Quality Act (CEQA) Guidelines Section 15130 describes when a cumulative impact analysis is necessary and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts under CEQA can be found in Section 15355 of the CEQA Guidelines. A definition of cumulative impacts under the National Environmental Policy Act (NEPA) can be found in 40 Code of Federal Regulations (CFR) Section 1508.7.

## 2.4.2 Methodology

The Department, in conjunction with FHWA and U.S. EPA, developed a guidance document titled *Guidance for Preparers of Cumulative Impact Analysis* (2005). The discussion below is based on the referenced guidance.

As specified in the guidance, if a proposed project will not cause direct or indirect impacts on a resource, it will not contribute to a cumulative impact on that resource. Furthermore, it is identified in the guidance that the cumulative impact analysis should focus only on 1) those resources significantly affected by the project or 2) resources currently in poor or declining health or at risk, even if the project impacts are relatively small. Therefore, less-than-significant impacts need not be included in the evaluation of potential cumulative impacts.

Resource Study Areas (RSAs) for those resources warranting analysis were identified for each respective resource. As discussed at the beginning of Chapter 2, or in the related sections of Chapter 2 of this environmental document, the proposed project would result in minor impacts but would not result in direct or indirect impacts for the topics listed below; therefore, no discussion is provided for the following topics in the evaluation of potential cumulative impacts:

- Coastal zone
- National Marine Fisheries Service
- Wild and scenic rivers
- Sole-source aquifers
- Encroachment on state lands
- Land use

- Parks and recreation facilities
- Farmlands/timberlands
- Growth
- Community impacts
- Utilities and emergency services
- Relocations and real property
- Environmental justice
- Visual impacts
- Cultural resources
- Paleontological resources
- Floodplains
- Traffic and transportation/pedestrian and bicycle facilities
- Air quality
- Noise
- Energy
- Natural communities
- Plant species
- Threatened and endangered species
- Invasive species

### 2.4.3 Resources Evaluated for Potential Cumulative Impacts

The discussion of potential cumulative impacts is organized by environmental resource area, as follows:

- Water quality and stormwater runoff
- Geology/soils/seismicity/topography
- Paleontology
- Hazardous waste/materials
- Wetlands and other waters
- Animal species

Future development projects near the project site within the City of Indio are listed in Table 2-1 and shown in Figure 2-2. As seen, future development near the project site consists of a variety of land uses, the majority being commercial/retail development and transportation improvement projects. Construction of the proposed improvements is expected to start in January 2022 and be completed within 30 months. The majority of the planned projects listed in Table 2-1 should be completed by the time construction of the proposed project begins in 2023, with the exception of I-10/Monroe Street Interchange Project (project ID #20), which is currently scheduled to complete construction in 2025 and Jackson Street Improvements –Roadway (project ID #21), which is currently scheduled to complete construction in 2024.

#### 2.4.3.1 Water Quality and Stormwater Runoff

##### *Water Quality*

The RSA for the analysis of cumulative impacts associated with water quality is the area covered by Indio HSA 719.47. This subarea covers approximately 540,000 acres. Receiving water bodies within the project boundaries include the CVSC, which eventually discharges to the Salton Sea approximately 24 miles downstream. Development of the I-10/Jackson Street Interchange Improvement Project, in combination with all the other development projects listed in Table 2-1 that would occur within this RSA, would involve construction activities that would increase stormwater runoff from new impervious surface areas. Construction of new development throughout the HSA could result in soil erosion, thereby cumulatively degrading water quality within the HSA. In addition, the increase in impervious surface area resulting from future development may also adversely affect water quality by increasing the amount of stormwater runoff transportation related pollutants, and associated targeted design constituents entering the storm drain system; however, new development would have to comply with existing regulations regarding construction practices that minimize the risk of erosion and runoff. Among the various regulations are the applicable provisions of the statewide NPDES permit; County and municipal codes related to controlling stormwater quality for new development and significant redevelopment, road and highway projects, and public works projects; municipal grading permits; and other NPDES permits. These would minimize the degradation of water quality at individual project construction sites. Consequently, cumulative water quality impacts would be minimized during the construction and operational phases. Compliance with applicable SWRCB and RWQCB regulations would ensure that water quality would be maintained to the maximum extent practicable with implementation of the potential development projects within the HSA. Therefore, there would be no water quality impacts associated with implementation of the I- 10/Monroe Street Interchange Improvement Project, and the proposed project would not result in a cumulatively considerable contribution to cumulative effects related to water quality.

##### *Groundwater*

The RSA for the analysis of cumulative impacts associated with groundwater is the area underlain by the groundwater basins and sub-basins within the project corridor. The project site rests above the Coachella Valley Groundwater Basin, which is a sub-basin to the Colorado River Hydrologic Region. The proposed project is not within an identified recharge area. Dewatering and construction activities that could encounter groundwater are not expected to occur, but this will be confirmed during field investigations at the Plans, Specifications, and Estimate (PS&E) phase. There would be no potential impacts on groundwater recharge with implementation of the proposed project. Although implementation of the proposed project would not have a cumulatively considerable adverse effect on groundwater recharge in the basin, overall development associated with transportation infrastructure projects that may be planned within the basin could directly and/or indirectly result in a loss of groundwater volume. The proposed project would be required to implement treatment BMPs to the MEP. Treatment BMPs, such as infiltration devices, augment groundwater by retaining stormwater runoff, which subsequently infiltrates into the groundwater regime.

Regional programs and BMPs, such as TMDL programs, the Drainage Area Management Plan/Local Implementation Plan (DAMP/LIP), and the municipal separate storm sewer system (MS4) permit, have been designed in anticipation of future urbanization within the region. Regional control measures contemplate the cumulative effects of proposed development. The requirements of these programs are intended to minimize the collective impacts of development on water quality. Because of these programs, water quality health in the watershed is considered to be improving.

The proposed project—and all proposed projects in the RSA—would be required to comply with the regulations that are in effect at the time the project is approved, or before construction permits are issued, thereby minimizing the water quality impacts of each project. Compliance with these regional programs and

the construction general permit constitutes compliance with the programs that address cumulative water quality impacts. Therefore, the proposed project's contribution to cumulative hydrology and water quality impacts would be minimal when taking into account other planned and programmed projects in the RSA.

#### 2.4.3.2 Geology/Soils/Seismicity/Topography

The RSA includes the area within 0.5 mile on each side of the project corridor. The cumulative projects include all projects listed in Table 2-1. The proposed project, in conjunction with other planned projects in the vicinity, may result in short-term increases in erosion due to grading activities. Increased development density in the surrounding areas could expose persons and property to potential impacts related to seismic activity. However, construction performed in accordance with accepted engineering standards and building codes would reduce the potential for structural damage due to seismic activity to the maximum extent feasible. Earthwork in the project area would be performed in accordance with the most current edition of the Department's *Standard Specifications* and/or the requirements of applicable government agencies. Implementation of the standard project features listed in Section 1.6, Project Features, would ensure that potential effects would be minimized. With implementation of these measures, the proposed project would not contribute to cumulative geologic impacts in combination with other planned and programmed projects in the RSA.

#### 2.4.3.3 Hazardous Waste/Materials

The RSA for hazardous waste/materials is the area within 0.5 mile of the project site. The RSA is limited to areas where hazardous waste/materials may be present. The cumulative projects include all of the projects listed in Table 2-1. During construction of the proposed project, the potential would exist for construction workers to be exposed to residual herbicides/pesticides, ACMs, and LBP; however, the proposed project would include measures (**HAZ-1** through **HAZ-5**) to minimize these potential effects. Following construction, the proposed project would not be expected to create new health hazards or expose people to new health hazards because toxic materials and chemicals would not be stored on the site. The project is not anticipated to increase the amount of hazardous material in the project area. The other development projects in the RSA could result in similar short-term exposure to hazardous materials during the construction period. However, because these projects would be discretionary actions and subject to CEQA and NEPA, they would be required to incorporate measures to reduce exposure-related impacts. Therefore, construction activities associated with the project, in conjunction with other projects, would not result in cumulative impacts related to hazards and hazardous materials.

#### 2.4.3.4 Biological Environment

The RSA used for assessing cumulative effects is based on the area plan of the CVMSHCP. The BSA is centrally located within the City of Indio, at the crossroads of I-10, Jackson Street, and the CVSC. The BSA for the proposed project is within the boundaries of the CVMSHCP but not within a CVMSHCP-designated Conservation Area. Areas surrounding the BSA comprise commercial, residential, and agricultural land uses. Channelization of surrounding waterways (i.e., the CVSC) for flood control and agricultural purposes has changed the hydrology of the area, further altering the natural habitats that once occurred. As a result, native plant communities, or natural communities, are no longer present within the BSA. In addition, habitats within surrounding properties have been converted to commercial, residential, and agricultural land uses and are no longer extant or connected to naturally occurring habitats, preventing natural plant communities from re-establishing. Remaining portions of the BSA consist of disturbed and developed areas that are generally devoid of vegetation. Temporary effects from the project would be considered less than significant under CEQA and not adverse under NEPA because these types of vegetation communities occur in abundance and support a limited amount of biological resources. There are no known designated habitat linkages or migration corridors within the BSA; therefore, no

temporary impacts are anticipated. The project would not contribute to cumulative impacts on native plant communities or natural communities.

#### 2.4.3.5 Wetlands and Other Waters

Based on the results of the delineation of state and federal jurisdictional waters, the CVSC, which includes Drainages 1 through 3, is tributary to the Salton Sea, a traditional navigable water, and falls under the jurisdiction of the USACE, the RWQCB, and the CDFW. Build Alternative 2 (Locally Preferred Alternative) would result in approximately 0.014-acre of permanent impacts to non-wetland waters of the U.S. and would result in approximately 0.007-acre of permanent impacts to CDFW jurisdictional streambed. In addition, Alternative 2 would result in approximately 0.099 acres of temporary impacts to USACE/Regional Board jurisdiction (non-wetland waters of the U.S.) and would result in approximately 6.41 acres of temporary impacts to CDFW jurisdictional streambed.

Build Alternative 4 would result in approximately 0.43-acre of permanent impacts to non -wetland waters of the U.S. and would result in approximately 0.91-acre of permanent impacts to CDFW jurisdictional streambed. In addition, Alternative 4 would result in approximately 0.95 acres of temporary impacts to USACE/Regional Board jurisdiction (non-wetland waters of the U.S. and would result in approximately 6.32 acres of temporary impacts to CDFW jurisdictional streambed. Therefore, it would be necessary to obtain the following regulatory approvals for both Build Alternatives prior to construction within jurisdictional areas: (1) USACE CWA Section 404 Permit, (2) RWQCB CWA Section 401 Water Quality Certification, and (3) CDFW Section 1602 Streambed Alteration Agreement.

Because of the relatively small impacts proposed and because all direct impacts would be fully addressed (refer to Section 2.3.2.4), the proposed project would not be expected to make a cumulatively considerable contribution to a regional decline in jurisdictional resources. The potential incremental increase in potential operational effects (if any) on jurisdictional waters and wetlands would not make a cumulatively considerable contribution to a regional decline in jurisdictional waters and wetlands. In addition, with implementation of minimization measure **WET-1**, which requires construction activities within CVSC to be designed and conducted to maintain downstream flow conditions, potential impacts to the CVSC will be minimized.

#### 2.4.3.6 Animal Species

The proposed project has the potential to result in both direct and indirect impacts on burrowing owl. However, with implementation of avoidance and minimization measure **BIO-4** and compliance with the CVMSHCP, no compensatory mitigation would be required.

Other special-status bird species observed or with potential to occur within the BSA include loggerhead shrike, Crissal thrasher, black-tailed gnatcatcher, Le Conte's thrasher. The proposed project has the potential to result in both direct and indirect impacts on these species. However, with implementation of avoidance and minimization measure **BIO-5** and compliance with the CVMSHCP, no compensatory mitigation would be required. Any potential for cumulative impacts would be fully mitigated through consistency with the CVMSHCP.

Special-status mammal species with the potential to occur within the BSA include pallid bat, pallid San Diego pocket mouse, spotted bat, western yellow bat, pocketed free-tailed bat, Palm Springs pocket mouse, American badger, and Palm Springs round-tailed ground squirrel. The proposed project has the potential to result in both direct and indirect impacts on these species. However, with implementation of avoidance and minimization measures **BIO-6** and **BIO-7** and compliance with the CVMSHCP, no compensatory mitigation would be required. Any potential for cumulative impacts would be fully mitigated through consistency with the CVMSHCP.

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# Chapter 3 CEQA Evaluation

## 3.1 Determining Significance Under CEQA

The proposed project is a joint project by the California Department of Transportation (Department) and the Federal Highway Administration (FHWA) and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). FHWA's responsibility for environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 United States Code Section 327 (23 USC 327) and the Memorandum of Understanding dated December 23, 2016, and executed by FHWA and Caltrans. The Department is the lead agency under CEQA and NEPA.

One of the primary differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an EIS, or a lower level of documentation, will be required. NEPA requires that an EIS be prepared when the proposed federal action (project) *as a whole* has the potential to "significantly affect the quality of the human environment." The determination of significance is based on context and intensity. Some impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA. Under NEPA, once a decision is made regarding the need for an EIS, it is the magnitude of the impact that is evaluated and no judgment of its individual significance is deemed important for the text. NEPA does not require that a determination of significant impacts be stated in the environmental documents.

CEQA, on the other hand, does require the Department to identify each "significant effect on the environment" resulting from the project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an EIR must be prepared. Each and every significant effect on the environment must be disclosed in the EIR and mitigated if feasible. In addition, the CEQA Guidelines list a number of "mandatory findings of significance," which also require the preparation of an EIR. There are no types of actions under NEPA that parallel the findings of mandatory significance of CEQA. This chapter discusses the effects of this project and CEQA significance.

## 3.2 CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects will indicate that there are no impacts to a particular resource. A NO IMPACT answer in the last column reflects this determination. The words “significant” and “significance” used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project, and standardized measures that are applied to all or most Department projects such as Best Management Practices (BMPs) and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be an integral part of the project and have been considered prior to any significance determinations documented below; see Chapters 1 and 2 for a detailed discussion of these features. The annotations to this checklist are summaries of information contained in Chapter 2 in order to provide the reader with the rationale for significance determinations; for a more detailed discussion of the nature and extent of impacts, please see Chapter 2. This checklist incorporates by reference the information contained in Chapters 1 and 2.

# I Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:

| Question | CEQA Determination |
|---|---|
| a) Have a substantial adverse effect on a scenic vista? | No Impact |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | No Impact |
| 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 a 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 |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | No Impact |

## CEQA Significance Determination for Aesthetics

**a), b), d) No Impact.**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* A scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. In addition, some scenic vistas are officially designated by public agencies, or informally designated by tourists and tourist guides. A substantial adverse effect to such a scenic vista is one that degraded the view from such a designated view spot. The Interstate 10 (I-10)/Jackson Street Interchange Project is not located within a scenic corridor or have views which would be considered a scenic vista. Therefore, the project would not have an adverse impact on a scenic vista.

The project would not adversely affect any "Designated Scenic Resource" as defined by CEQA statutes or guidelines, or by the Department's policy. There are no designated scenic highways or eligible-for-designation scenic highways within the immediate project area.

There is existing street lighting along Jackson Street. The project would not include any additional lighting; nor would any of the materials include anything that would be a new source of glare. There would be no impact related to light or glare that would adversely affect views in the area.

**c) Less Than Significant Impact.**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* The project would not result in substantial adverse impacts to the visual environment. The proposed improvements would only slightly alter the current visual landscape as the affected interchange and roadway are existing facilities. The materials used would be similar to the existing materials, including the paint used for restriping and the asphalt used for widening/resurfacing. The slight changes to the views would not alter the visual character or quality of the segments, and impacts would be less than significant.

## II Agriculture and Forest Resources:

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California 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 the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

| Question | CEQA Determination |
|---|---|
| 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? | Less Than Significant Impact |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | Less Than Significant Impact |
| 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 |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | No Impact |
| 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 |

### CEQA Significance Determination for Agriculture and Forest Resources

**a), b) Less Than Significant Impact.**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* A total of 0.125 of an acre of "*Farmlands of Local Importance*" would be temporarily impacted by both Build Alternatives. The affected parcel is not currently used for purposes of agricultural production as it is used for commercial purposes currently. Given that both Build Alternatives would temporarily use less than 5 percent of the parcel designated as Farmlands of Local Importance and that the parcel is currently built on and is being used for commercial uses, the impact would be less than significant.

**c), d), e) No Impact.**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* There are no areas within the Williamson Act contract within the project area. There are no Prime Farmlands, Unique Farmlands, or Farmlands of Statewide Importance within the project footprint or adjacent to the project. There would be no conversion of farmlands to non-agricultural use as all the parcels within the project footprint are not currently used for agriculture. Similarly, there would be no conversion of forest to non-forest use as there are no forests within the project area.

There are no timberlands or timber harvesting uses in the project area. The project would have no effect on timberlands. Additionally, there are no forests within the project area, and thus there would be no effect to forest lands.

## 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:

| Question | CEQA Determination |
|---|---|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | Less Than Significant Impact |
| 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? | Less Than Significant Impact |
| c) Expose sensitive receptors to substantial pollutant concentrations? | Less Than Significant Impact |
| d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | No Impact |

### CEQA Significance Determinations for Air Quality

**a), b), c) Less than Significant Impact**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* Construction of the project would not exceed any applicable local significance thresholds. The overall effects of the project on emissions of criteria air pollutants and their precursors are very minor. Future emissions of reactive organic gases, nitrogen oxides, and carbon monoxide would be lower than at present, with or without implementation of the project due to improved fuel economy and pollution control technologies. Air pollutant emissions would not increase overall due to operation of the project. Operational impacts would be negligible. Therefore, the project would not conflict with the AQMP, violate any air quality standard, or result in a net increase of any criteria pollutants.

As stated in Chapter 2, emission calculations assume that the project would comply with SCAQMD's Rule 403, Fugitive Dust, by implementing the rule-stipulated best available control measures to minimize fugitive dust emissions. Sensitive receptors would be exposed to pollutants for a small portion of the total construction period because equipment would not be operated at a particular location along the alignment for an extended period of time. The diesel particulate matter generated from construction equipment would be sporadic, transitory, and short term in nature. Therefore, the project would not expose receptors to acute and/or chronically hazardous toxic air contaminant pollutants.

Distance to the nearest sensitive receptor was assumed to be 100 meters due to the size of the site and the distances to the nearest residential areas. Emissions from construction of the project would not exceed any applicable local significance threshold, and, therefore, could not result in a violation of an air quality standard.

Lastly, at no time during construction of the project would maximum daily emissions exceed any applicable SCAQMD thresholds of significance for regional emissions. Therefore, regional air pollutant emissions generated by construction of the project could not cause a violation of an air quality standard or contribute to an existing violation. This would be a less-than-significant, temporary impact.

The project would not create new sources of motor vehicle traffic but could induce some motorists to alter their existing routes. Air pollutant emissions would not increase overall due to operation of the project—and could decrease if project improvements resulted in more efficient traffic operations—but could be marginally higher along Jackson Street if vehicle volumes increased. Operational impacts would be negligible, and no mitigation measures or further analysis are required.

**d) No Impact**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* Projects that are typically 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 these elements that are typically associated with odor generation.

During construction, exhaust from equipment and activities associated with the application of pavement, finishes, or paints may produce discernible odors typical of most construction sites. Such odors would be temporary sources of nuisance to adjacent uses and would not affect a substantial number of people. Odors associated with construction would be temporary and intermittent in nature.

## IV Biological Resources

Would the project:

| Question | CEQA Determination |
|---|---|
| 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 Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries? | Less Than Significant Impact |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | Less Than Significant Impact |
| 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? | Less Than Significant Impact |
| 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? | No Impact |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | No Impact |
| 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 |

### CEQA Significance Determination for Biological Resources

**a) Less Than Significant Impact.**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* No federally listed plant or animal species were observed within the BSA during the habitat assessment and would not be directly or indirectly impacted from implementation. No temporary or permanent direct impacts to special-status plant species are anticipated to occur as a result of the project. However, development of the project has the potential to result in indirect impacts to special-status plant species that may occur within habitats surrounding the BSA such as fugitive dust or spread of non-native seeds. With implementation of avoidance and minimization measure **BIO-1**, the project would not result in indirect impacts to special-status plant species.

Burrowing owls were identified in the BSA during focused surveys. The project has the potential to result in both direct and indirect impacts to burrowing owl. Other special-status bird species observed or with the potential to occur within the BSA include loggerhead shrike (*Lanius ludovicianus*), black-tailed gnatcatcher (*Polioptila melanura*), Crissal thrasher (*Toxostoma crissale*) and Le Conte's thrasher

(*Toxostoma lecontei*). The project has the potential to result in both direct and indirect impacts to these species. However, with implementation of the avoidance and minimization measures **BIO-4**, **BIO-5**, and **BIO-6**, and compliance with the CVMSHCP, no compensatory mitigation would be required and impacts are less than significant.

Special-status mammal species with the potential to occur within the BSA include western yellow bat (*Lasiurus xanthinus*), American badger (*Taxidea taxus*), Pallid bat (*Antrozous pallidus*), spotted bat (*Euderma maculatum*), Palm Springs pocket mouse (*Perognathus longimembris* ssp. *bangs*), Pallid San Diego pocket mouse (*Chaetodipus fallax pallidus*), and Palm Springs round-tailed ground squirrel (*Xerospermophilus tereticaudus chlorus*). The project has the potential to result in both direct and indirect impacts to these species. However, with implementation of the avoidance and minimization measure **BIO-7** and compliance with the CVMSHCP, no compensatory mitigation would be required.

**b), c) Less Than Significant Impact.**

*Build Alternative 2 (Locally Preferred Alternative):* The BSA contains primarily disturbed and developed land cover types as well as disturbed desert wash. Under Alternative 2, there would be temporary impacts to 6.47 acres of desert wash, 20.05 acres of disturbed areas, and 25.09 acres of developed areas. Under this alternative, there would be permanent impacts to 0.78 acres of desert wash, 13.87 acres of disturbed areas, and 12.03 acres of developed land. These impacts would be less than significant because these communities occur in abundance and support a limited amount of biological resources.

Alternative 2 would temporarily impact 0.099 acres and permanently impact 0.014 acres of U.S. Army Corps of Engineers (USACE)/Regional Board jurisdiction (non-wetland waters). Alternative 2 would also temporarily impact 6.41 acres and permanently impact 0.007 acres of CDFW jurisdictional streambed. Additionally, clearing, grubbing, and grading associated with Alternative 2 may result in indirect impacts to jurisdictional areas. Implementation of measure **WET-1** would reduce or avoid impacts to wetlands.

*Build Alternative 4:* The BSA contains primarily disturbed and developed land cover types as well as disturbed desert wash. Under Alternative 4, there would be temporary impacts to 6.38 acres of desert wash, 20.11 acres of disturbed areas, and 25.71 acres of developed areas. Under this alternative, there would be permanent impacts to 0.91 acres of desert wash, 14.27 acres of disturbed areas, and 12.01 acres of developed land. These impacts would be less than significant because these communities occur in abundance and support a limited amount of biological resources.

Alternative 4 would temporarily impact 0.95 acres and permanently impact 0.43 acres of USACE/Regional Board jurisdiction (non-wetland waters). Alternative 4 would also temporarily impact 6.32 acres and permanently impact 0.91 acre of CDFW jurisdictional streambed. Additionally, clearing, grubbing, and grading associated with Alternative 4 may result in indirect impacts to jurisdictional areas. Implementation of measure **WET-1** would reduce or avoid impacts to wetlands.

**d), e), f) No Impact.**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* There are no known designated habitat linkages or migration corridors within the BSA. Further, the CVSC has not been identified in the CVMSHCP as a habitat linkage or migration corridor. The CVSC is relatively undeveloped and allows wildlife to easily move through the area in search of food, shelter, or nesting habitat. Therefore, the channel has the potential to support the movement of coyote and other common wildlife species that occur within the surrounding areas. Project activities are not expected to impede wildlife movement through the BSA, specifically through the CVSC, and it will continue to provide opportunities for local wildlife movement and function as a corridor for highly mobile wildlife species. The project would have

no impact to movement of any native resident, migratory fish, or wildlife species. Nor will the project impact established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

The BSA for the project is located within the boundaries of the CVMSHCP. However, the BSA is not located within a CVMSHCP-designated Conservation Area. In addition, the project is identified as a "Covered Activity" under the CVMSHCP. The project would not conflict with the provisions the CVMSHCP.

## V Cultural Resources

Would the project:

| Question | CEQA Determination |
|---|---|
| a) Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5? | No Impact |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | No Impact |
| c) Disturb any human remains, including those interred outside of dedicated cemeteries? | No Impact |

### CEQA Significance for Cultural Resources

**a), b), c) No Impact.**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* No cultural resources were identified within the APE during the archaeological survey. The archaeological survey revealed the entire surface of the APE was disturbed previously by road and interstate construction in addition to channelization and regular maintenance of the CVSC. Given that no archaeological resources were identified as a result of archival research and field investigation, and the likelihood for encountering intact subsurface archaeological deposits is low, the project would have no potential to impact archaeological or cultural resources.

There are no historical structures eligible for or listed on the NRHP or CRHR for this project. As there are no historical resources or archaeological resources identified, there would be no impact to them. However, if unknown, previously undiscovered cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find. Additional surveys may be required if project plans change to include areas that were not previously surveyed for cultural resources.

Construction activities are not expected to be at a depth where they could possibly encounter human remains, especially because the majority of the proposed work is on previously disturbed soil; therefore, there would be no impact. In addition, the records search and survey results did not yield any evidence of human burials, or cemeteries, either formal or informal. However, standard Caltrans design features **CR-1** and **CR-2** would be included in the project in the event that any inadvertent discoveries are encountered.

**CR-1:** If cultural materials are discovered during construction, all earthmoving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

**CR-2:** If human remains are discovered, California Health and Safety Code (H&SC) Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to

overlie remains, and the County Coroner contacted. If the remains are thought by the coroner to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), who, pursuant to PRC Section 5097.98, will then notify the Most Likely Descendent (MLD). The person who discovered the remains will contact the District 8 Division of Environmental Planning; Andrew Walters, DEBC: (909)383-2647 and Gary Jones, DNAC: (909)383-7505. Further provisions of PRC 5097.98 are to be followed as applicable.

## VI Energy

Would the project:

| Question | CEQA Determination |
|---|---|
| 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 |
| b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | No Impact |

### CEQA Significance for Energy

**a) Less Than Significant Impact.**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* During construction of the project, energy would be consumed in the form of petroleum-based fuels associated with the use of off-road construction vehicles and equipment on the project site, construction workers traveling to and from the project site, and water and haul truck trips (e.g., hauling of demolition material to off-site reuse and disposal facilities). Electricity and natural gas would not be used during project construction.

Construction would use energy only necessary for on-site activities, construction worker travel, and to transport construction materials and demolition debris. Idling restrictions and the use of cleaner, energy-efficient equipment would result in less fuel combustion and energy consumption, thus minimizing the project construction-related energy use. Therefore, construction of the project would not result in the wasteful, inefficient, and unnecessary consumption of energy.

Operation of the project would result in a slight increase in electricity from traffic signals, ramp metering, and streetlights, but would not result in an increase in natural gas; therefore, energy consumption from natural gas was excluded from the analysis. The project would also improve pedestrian and bicycle infrastructure and would promote the use of alternative modes of travel. While not quantified, the improvement in bicycle paths and pedestrian walkways could result in a decrease in non-renewable fuel sources and would result in more efficient use of energy resources.

The project would not increase operational transportation fuel demand consistent with and not in conflict with State, regional, and City goals. Therefore, operation of the project would not result in the wasteful, inefficient, and unnecessary consumption of energy under either scenario.

Lastly, maintenance of the project would include general upkeep of the traffic signals, ramp metering, street lighting, and pavement. The maintenance of the project would not result in wasteful, inefficient, and unnecessary consumption of energy, and the impact would be less than significant in nature.

**b) No Impact.**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* The project would not result in a net increase of fossil fuel usage for Build Alternative 2 and Build Alternative 4 when compared to the No-Build scenario for both buildout (2025) and future (2045) years. The project is an infrastructure improvement that would not attract an increase in vehicular volume and is only designed to streamline entrance and exit from the freeway. The increased efficiency of the interchange may also result in less idling time that would further reduce fuel consumption for the Build Alternatives. Further, since the project would not result in an increase in trips or fuel usage over the baseline, it would be consistent with SCAG's RTP/SCS. Therefore, the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and there would be no impact.

## VII Geology and Soils

Would the project:

| Question | CEQA Determination |
|---|---|
| a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:<br>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. | No Impact |
| ii) Strong seismic ground shaking? | No Impact |
| iii) Seismic-related ground failure, including liquefaction? | No Impact |
| iv) Landslides? | No Impact |
| b) Result in substantial soil erosion or the loss of topsoil? | Less Than Significant Impact |
| 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 |
| 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 |
| 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 |
| f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | Less Than Significant Impact |

### CEQA Significance Determination for Geology and Soils

**a i), a ii), a iii), a iv), e) No Impact.**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* The project site is located in the seismically active Southern California region. However, construction and operation of the project have no potential to rupture a known earthquake fault, cause strong seismic ground shaking, or cause seismic-related ground failure, including liquefaction. No impacts are anticipated for seismically induced landslides, given the relatively stable and flat topography of the project area. During the life of the project, seismic activity associated with active faults can be expected to generate moderate to strong ground shaking at the site during active earthquakes. Compliance with the most current Department procedures regarding seismic design, which is standard practice on all Department projects, is anticipated to prevent any adverse effects related to seismic ground shaking on the project. Conformance with the California Building Code (CBC)

as well as adherence to standard engineering practices and Department design criteria, would reduce the effects of seismic ground shaking.

Available site information and the site review performed for the project did not indicate landslides hazards within the project limits. No impacts are anticipated.

The project would not implement the use of septic tanks, and thus no impacts are expected in this regard.

**b), c), d), f) Less Than Significant Impact.**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* The Jackson Street OC and Whitewater River Bridge are located within a Riverside County-designated area of moderate liquefaction potential (Riverside County, 2018). Liquefaction potential is considered to be low due to an absence of shallow groundwater. The project would follow the Department's latest design requirements to minimize any potential effects related to liquefaction and seismically induced settlement. With implementation of these standard measures, no direct or indirect, adverse, long-term impacts would occur as a result of the project.

Erosion control measures also would be used to address site soil stabilization and reduce deposition of sediments in adjacent surface waters. Typical measures would include the application of soil stabilizers such as soil binders, rock slope protection, velocity dissipation devices, and flared end sections for culverts.

The subsurface soils at the site are expected to consist of engineered fill underlain by alluvial soils. The engineered fill is expected to consist of fine to coarse silty sand and the alluvial soil is expected to consist of interbedded micaceous very fine to fine sand and laminated clayey silt. Coarse grained soils (sandy soils) are generally anticipated to be non-expansive or have a very low expansion potential. Fine grained soils (silts and clays) are usually susceptible to medium to high expansion potential. Soil expansion potential will be evaluated during PS&E for the project.

The literature, records search, and survey indicate that the project has low potential to affect important nonrenewable highly sensitive paleontological resources. No scientifically significant paleontological resources are anticipated to be impacted by the project. However, implementation of **PAL-1** would ensure that no impacts to sensitive paleontological resources would occur.

## VIII Greenhouse Gas Emissions

Would the project:

| Question | CEQA Determination |
|---|---|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | Less Than Significant Impact |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | Less Than Significant Impact |

### CEQA Significance Determination for Greenhouse Gas Emissions

**a) Less than Significant Impact.**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* Construction GHG emissions would result from material processing, on-site construction equipment, and traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and

occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be offset to some degree by longer intervals between maintenance and rehabilitation activities.

The construction period for the project is expected to occur over 2 stages for a total of approximately 24 months. Construction emissions were estimated using the latest Sacramento Metropolitan Air Quality Management District's Road Construction Emissions Model (RCEM), Version 9.0.0. Construction activities for both Build Alternative 2 and Build Alternative 4 would be the same. Construction emissions were estimated for both Build Alternatives using default equipment inventories provided in RCEM, project construction scheduling information provided by the project engineer, and emissions factors from the EMFAC 2017 and OFFROAD models. The emissions presented are the worst-case maximum daily construction emissions (pounds per day) for each activity that would be generated by both Build Alternatives.

Overall project construction emissions of GHGs would be 3,927.79 metric tons over the approximately 24-month construction period, which would be approximately 0.07 percent of Riverside County's estimated 2020 GHG Business as Usual inventory. GHG emissions for Alternative 4 would be slightly more than Alternative 2 because the Diverging Diamond configuration would require additional structure for traffic to cross to opposite sides between signalized crossover intersections. However, emissions would still be within approximately 0.07 percent of Riverside County's estimated 2020 GHG Business as Usual inventory.

Even with an increase in design year VMT as compared to the baseline VMT (refer to Table 3.3-2 in Section 3.3, Climate Change), operation of the project would not increase GHG emissions from mobile sources despite the capacity-enhancing features of the project. A sidewalk and shared path for bikes and LSEVs will increase opportunities for non-motorized transportation and provide connectivity with the planned CV Link multi-use trail. These features support GHG-related goals and policies of the RTP, the Riverside County and City of Indio general plans, the Western Coachella Valley Area Plan, and the Riverside County CAP. Implementation of the project, along with other projects included in the regional 2016–2040 RTP, should further improve traffic flow and decrease congestion within the region.

While the project will result in GHG emissions during construction, it is anticipated that the project will not result in any increase in operational GHG emissions (refer to Section 3.3, Climate Change). With implementation of construction GHG-reduction measures **GHG-1** through **GHG-5**, the impact would be less than significant.

**b) Less than Significant Impact.**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* The proposed project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. The impact would be less than significant.

# IX Hazards and Hazardous Materials

Would the project:

| Question | CEQA Determination |
|---|---|
| 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 |
| 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 |
| 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 |
| 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 |
| 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? | No Impact |
| f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | Less Than Significant Impact |
| g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | No Impact |

## CEQA Significance Determinations for Hazards and Hazardous Materials

### a), b), c), f) Less Than Significant Impact

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* During construction of the project, there would be a possibility of accidental release of hazardous substances. However, the level of risk associated with the accidental release of hazardous substances is not considered to be adverse due to the small volume and low concentration of hazardous materials utilized during construction. Implementation of avoidance and minimization measures **HAZ-1** and **HAZ-6** will ensure that all hazardous materials are identified prior to construction and will ensure that proper handling and disposal measures are followed.

A school, Andrew Jackson Elementary School, is immediately adjacent to the project limits. Hazardous wastes such as asbestos-containing materials and lead-based paint could be generated during demolition of existing structures within the alignment. This effect would be temporary and limited to the construction period. However, as stated earlier, the level of risk associated with the accidental release of hazardous substances is not considered to be adverse due to the small volume and low concentration of hazardous materials utilized during construction. With the utilization of BMPs and safe handling practices, no impacts are anticipated to the school. In addition, implementation of avoidance and minimization measures **HAZ-2** and **HAZ-3**, will ensure that all asbestos will be removed properly and safely, without accidental release. Lastly, if the soil in the project vicinity is found to be an ADL issue, then it is to be excavated and removed from the site, and it will need to be disposed of at a landfill as a California hazardous waste (refer to avoidance and minimization measure **HAZ-4**).

Emergency service response times could potentially be affected during the 24-month construction period. However, the impacts would be temporary in nature. Construction impacts would be addressed with implementation of a Traffic Management Plan (TMP) (refer to measure **TRA-1** in Section 2.1.7.4) which would serve to minimize disruption to emergency services and require coordination with emergency services. However, Build Alternatives 2 and 4 would improve the operational performance of the I-

10/Jackson Street interchange, and the local street system, by accommodating anticipated increased traffic demand and associated potential congestion from planned development in the area. Thus, both Build Alternatives would improve the delivery of public services (police and fire protection, and emergency medical response) in the area that would otherwise would not occur under the Build Alternatives.

**d), e), g), No Impact**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* The project is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

The project is located approximately 2.8 miles from the Bermuda Dunes Airport. However, the project is not subject to airspace review or any restrictions since the project would be less than 100 feet tall. The project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires.

## X Hydrology and Water Quality

Would the project:

| Question | CEQA Determination |
|---|---|
| a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? | Less Than Significant Impact |
| b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin? | No Impact |
| 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:<br>(i) result in substantial erosion or siltation on- or off-site; | Less Than Significant Impact |
| (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; | Less Than Significant Impact |
| (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 | No Impact |
| (iv) impede or redirect flood flows? | No Impact |
| d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | No Impact |
| e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | No Impact |

### CEQA Significance Determination for Hydrology and Water Quality

**a), c(i), c(ii) Less than Significant Impact**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* The project has the potential to affect water quality during the operation phase. Potential pollutant sources associated with operations includes motor vehicles, highway maintenance, illegal dumping, spills, and landscaping care. During the construction phase, soil disturbance activities including earth-moving activities such as excavation and trenching, soil compaction, cut and fill activities, and grading would occur. The temporary disturbed surface area (DSA) is approximately 26.93 acres within the Department's right-of-way and 31.77 acres total (within and outside of the Department's right-of-way). Implementation of the SWPPP is expected to attenuate and minimize the amount of sediments released from the construction site (refer to measures **WQ-1** and **WQ-**

**2**). Short-term impacts caused by each of the build alternatives include potential increases in sediment loads because of removal of existing groundcover and disturbance of soil during grading. The temporary residual increase in sediment loads from construction areas is unlikely to alter the hydrologic response (i.e., erosion and deposition) downstream in the hydrologic subarea and, subsequently, the sediment processes in these areas would be reduced because all DSAs would be stabilized before completion of construction with permanent landscaping and/or permanent erosion control measures.

**b), c(iii), c(iv), d), e) No Impact**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* Groundwater recharge facilities are not present within the project limits and there is no change in channel lining; therefore, the project would not interfere with groundwater recharge. The project lies within a Zone AE floodplain. According to the *Location Hydraulic Study*, the flood hazard and flood depths in the CVSC will be minimally impacted as a result of the proposed project. The work in this area is limited to improvements on an existing bridge.

Operation of the project would result in an increase in impervious surface areas, which would result in an increase in stormwater runoff. Potential pollutants associated with the operation of transportation facilities include sediment from natural erosion; nutrients, such as phosphorus and nitrogen, associated with freeway landscaping; mineralized organic matter in soils; nitrite discharges from automobile exhausts and atmospheric fallout; litter; and metals from the combustion of fossil fuels, the wearing of brake pads, and corrosion of galvanized structures. Build Alternative 4 which has the largest footprint of the build alternatives would add 7.88 acres of new impervious surface area. With the implementation of standard Department Treatment BMPs, Design Pollution Prevention BMPs, and Maintenance BMPs, the project would not increase the rate or amount of surface runoff in a manner that would result in flooding on or off site. The increased runoff would not exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; therefore, no impacts are anticipated.

Under the Build Alternatives 2 and 4, the goal of the proposed treatment BMP strategy is to treat more than 100 percent of the water quality volume from the new net impervious and pervious areas to fulfill the requirements of the Department's NPDES permit. The project proposes to treat approximately 3.11 more acres of impervious areas, thereby improving water quality over what is "required" by the NPDES permit. The Department-approved Treatment BMPs and temporary Construction Site BMPs are considered project design features. Therefore, with incorporation of Temporary and Permanent BMPs, no impacts are anticipated.

The Colorado River Regional Water Quality Control Plan applies to the project area, as well as other water quality control plans and policies adopted by the State Water Resources Control Board. With the implementation of standard Department Treatment BMPs, and temporary Construction Site BMPs, the effect to surface and ground water quality associated with operation of the project would be less than significant. There would be no conflict with applicable stormwater quality plans or sustainable groundwater management plans.

Dewatering is not anticipated during construction since a deeper groundwater level is expected based on historical data and preliminary investigations. If construction of the project requires the discharge of groundwater to the environment or dredged or fill material, implementation of measure **WQ-3** would avoid water quality and hydrological impacts associated with construction.

The project would not cause a change to sedimentation in receiving water bodies within the project area because the project would result in a minor increase in runoff compared to the entire hydrologic area.

Tsunamis have no potential to occur in the project area given its inland location. Seiching is possible within the Whitewater River Channel if a large earthquake coincides with a high flow level event, although this is unlikely given how low the water level is in the channel in general.

## XI Land Use and Planning

Would the project:

| Question | CEQA Determination |
|---|---|
| a) Physically divide an established community? | No Impact |
| 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? | No Impact |

### CEQA Significance Determinations for Land Use and Planning

**a), b) No Impact**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* The project would not physically divide an established community, as I-10, Jackson Street and the current interchange exists within this area and the project would not result in permanent acquisitions. However, a total of 7 TCEs would be required under both Build Alternatives. The TCEs would occur on vacant land, commercial and retail properties, and one residential property and a school. Access to these properties would be maintained at all times throughout the construction period. Because these impacts would be temporary and the portions of the parcels required during construction would be restored and returned to their owners following construction, no impacts would occur.

Both Build Alternatives are consistent with the City of Indio's General Plan, the Southern California Association of Government's (SCAG) 2019 Federal Transportation Improvement Program (FTIP), the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), Amendment #3, and the California Transportation Plan (CTP) 2040. The project is located within the boundaries of the CVMSHCP, but is not located within any CVMSHCP-designated Conservation Areas. Further, the proposed project is a Covered Activity under the CVMSHCP, and would not conflict with the provisions the CVMSHCP. There are no other land use plans, policies, or regulations related to the proposed project.

## XII Mineral Resources

Would the project:

| Question | CEQA Determination |
|---|---|
| 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 |
| 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 |

### CEQA Significance Determinations for Mineral Resources

**a), b) No Impact**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* According to the City of Indio's Mineral Resource Zone Map, the project is not located in an area designated as Mineral Resources.

## XIII Noise

Would the project result in:

| Question | CEQA Determination |
|---|---|
| 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 |
| b) Generation of excessive groundborne vibration or groundborne noise levels? | Less Than Significant Impact |
| 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? | No Impact |

### CEQA Significance Determinations for Noise

**a), b) Less Than Significant Impact**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* A field investigation was conducted to identify land uses that could be subject to traffic and construction noise impacts from the project. The following land uses were identified in the project area:

- Single-family residences: Activity Category B
- Outdoor recreational use areas: Activity Category C
- School: Activity Category C (exterior) and Activity Category D (interior)
- Hotels: Activity Category E
- Restaurant: Activity Category E
- Commercial retail uses: Activity Category F
- Undeveloped lands: Activity Category G

In addition, there are several commercial and industrial facilities within the study area without outdoor use areas. The terrain throughout the project area is varied where there is a storm channel between I-10 and land uses to the south with earthen berms located on either side of the storm channel. The terrain at noise-sensitive receivers is generally flat.

Temporary construction noise impacts would be unavoidable at areas immediately adjacent to the project alignment. It is possible that certain construction activities could cause intermittent localized concern from vibration in the project area. However, construction noise and vibration would be short term, intermittent, and overshadowed by local traffic noise. Construction noise control shall conform to the provisions in Section 14-8.02, "Noise Control," of the Department's 2018 Standard Specifications and 14-8.02, "Noise Control," of the Standard Special Provisions. The requirements state that all equipment shall be fitted with adequate mufflers and operated according to the manufacturers' specifications. Construction noise varies greatly depending on the construction process, type, and condition of equipment used, and layout of the construction site.

The City of Indio does not have specific noise requirements for transportation noise within the City limits. However, under CEQA, the baseline (existing) noise level is used as a comparison to the anticipated project noise level. The assessment of project noise impacts entails identifying the physical area and

setting where the potential noise impact could occur and then determining how substantial and perceptible any noise increase would be in the given area. With respect to the community noise assessment, changes in noise levels of less than 3 dBA are generally not discernable to most people, while changes greater than 5 dBA are readily noticeable and would be considered a significant increase.

Traffic noise was evaluated under existing conditions and future design year (2045) conditions with the project. Loudest-hour traffic volumes, vehicle classification percentages, and traffic speeds under existing (2018) and design year (2045) were used as input into the traffic noise model.

Existing and future predicted noise levels were computed for a total of 45 noise sensitive land use receivers, including residential communities to the northeast of the interchange. Existing noise levels ranged from 35 to 67 dBA Leq. The noise modeling results indicated that predicted traffic noise levels for the future 2045 with-project conditions would range from 38 to 72 dBA Leq. The results show that the project would increase the noise levels at some receiver locations by a maximum of 3 dB. Therefore, the traffic noise volumes associated with the project would not exceed the 5 dB threshold (Caltrans, 2019). In addition, reconstruction of the interchange would shift traffic farther away from a number of noise-sensitive land uses within in the project area, which would result in a decrease in noise levels in the future with project conditions in comparison to the No Build conditions. Consequently, operational noise impacts would be less than significant.

**c) No Impact**

The Bermuda Dunes Airport is located approximately 2.2 miles west of the project site. The project is not located within the Bermuda Dunes Airport Land Use Compatibility plan; therefore, the project is not within airport influence areas. There would be **no impact** related to this significance criterion.

## XIV Population and Housing

Would the project:

| Question | CEQA Determination |
|---|---|
| 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 |
| b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | No Impact |

### CEQA Significance Determinations for Population and Housing

**a), b) No Impact**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* The project is located on an existing interchange facility near existing roadways, providing access to existing and planned development. The project has been designed to accommodate present and projected increases in traffic volumes expected as a result of previously implemented and planned development in the area. The project has no real potential to induce substantial population growth, either directly or indirectly, in the immediate project vicinity or in the region. Therefore, project-related induced population growth is not anticipated.

Both Build Alternatives would partially acquire 16 parcels, with Build Alternative 2 acquiring 1.69 acres and Alternative 4 acquiring 2.059 acres. Neither Alternatives 2 nor 4 would require full acquisitions from any parcels. Permanent right-of-way impacts are anticipated north and south of the existing interchange.

Planned property acquisitions would affect currently vacant lands, a school, commercial properties, and a single-family residence. The CVSC would also require right-of-way impacts due to new bridge construction, pier protection construction, and channel lining. The potential permanent right-of-way acquisition anticipated for the project would not result in the displacement or relocation of existing residents, businesses, farms, non-profits, or government services in the project area. No replacement housing will be required as a result of either construction or operation of this project. All right-of-way acquisition would be completed in accordance with measure **REL-1**, which requires all acquisitions to be in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. Given the relatively minor amount of land acquisitions that would be required, the project would not result in significant impacts to population and housing. As such, no impacts are anticipated.

## XV Public Services

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:

| Question | CEQA Determination |
|---|---|
| a) Fire protection? | Less Than Significant Impact |
| b) Police protection? | Less Than Significant Impact |
| c) Schools? | Less Than Significant Impact |
| d) Parks? | Less Than Significant Impact |
| e) Other public facilities? | Less Than Significant Impact |

### CEQA Significance Determinations for Public Services

**a) Less Than Significant Impact**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* Fire services are delivered from three fire stations spread throughout the city that each serve an approximate 1.5-mile radius around each station. The service zones for each of the fire stations slightly overlap each other to better provide timely responses. The project location is serviced by Stations 432 and 431.

The City of Indio Police Department is located at 46800 Jackson Street, approximately 2 miles south of the project limits. The California Highway Patrol (CHP) Indio Area is part of CHP's Border Division and serves thousands of permanent and temporary residents. The CHP Indio station (Station 630) is located at 79650 Varner Road in Indio, CA 92203, which is approximately 3.3 miles northwest of the project location.

Andrew Jackson Elementary School and North Jackson Park are located immediately south and southeast of the project. However, neither resource shall be physically impacted by construction or implementation of the project alternatives. It is prudent to note that there is 1.17 acres of land in between the Andrew Jackson School and Jackson Street south of the interchange that is considered greenspace/landscaping that is unsafe for children to use as recreation because of its proximity to the roadway (610-230-004); therefore, it does not qualify as a recreational resource. Although the elimination of a narrow portion of the parcel with the landscaping (approximately 0.2 acres) would move the roadway closer to the school, the school grounds and classrooms would be impacted only an infinitesimal amount more than they are currently experiencing. Access would be maintained at all times for both the school and the park, and there would be no interruption of the school or its activities.

Based on current design plans for the proposed I-10/Jackson Street Interchange Improvement Project, the proposed CV Link trail would be going through the project area and would require realignment; however, no adverse effect on this resource is anticipated because the trail would only be closed temporarily during construction and the uses of the trail that qualify this resource for recreational use. As part of project design for both Build Alternatives, access ramps will be constructed to accommodate the CV Link Trail. Therefore, access to and from the trail would be increased by implementation of this project. During construction, there would be no change in access (i.e., there would be no change in access when comparing trail conditions prior to and after the project is completed).

Build Alternatives 2 and 4 could result in short-term construction impacts to emergency access due to traffic delays associated with a construction zone; however, such delays would be for a short period of time and would cease upon completion of project construction. Construction is estimated to last 24 months.

It is anticipated that the project would be staged to minimize impacts to existing traffic. Alternatives 2 and 4 would completely reconstruct the I-10/Jackson Street Overcrossing, Jackson Street, Whitewater River Bridge and all four ramps. The staging concepts and existing width of the bridges would control the phasing of the interchange stage construction. Road and ramp closures with detours in place may be considered on Jackson Street and for the on- and off-ramps. Intermittent nighttime closures would be needed on I-10 for falsework erection and deck pours. Staging design, traffic handing plans, and detours would be developed in the final design phase of project development.

Emergency service response times would be affected during the 24-month construction period. However, the impacts would be temporary in nature. Construction impacts would be addressed with implementation of a Traffic Management Plan (TMP) (refer to measure TRA-1 in Section 2.1.7.4) which would serve to minimize disruption to emergency services and require coordination with emergency services.

Operation of the project would not result in an increase in population or, result in the need for additional facilities, nor would response times of emergency personnel be increased. However, construction activities have the potential to result in temporary disruptions during the construction period. Construction activities could also lead to an increase in delay times for emergency response vehicles. However, with the implementation of a TMP, as identified in measure **TRA-1**, temporary access impacts on these community service facilities would be less than significant.

Additionally, Build Alternatives 2 and 4 would improve the operational performance of the I-10/Jackson Street interchange and around the project vicinity by accommodating anticipated increased traffic demand and associated potential congestion from planned development in the area. Therefore, both Build Alternatives would improve the delivery of public services (police and fire protection, and emergency medical response) in the area that otherwise would not occur under the No-Build Alternative.

## XVI Recreation

| Question | CEQA Determination |
|---|---|
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | No Impact |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | No Impact |

### CEQA Significance Determination for Recreation

**a), b) No Impact**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* The project does not have the capacity to generate a substantial increase in the use of any existing neighborhood parks, regional parks, or other recreational facilities such that physical deterioration would occur. Nor would it require the construction or expansion of existing recreational facilities.

## XVII Transportation

Would the project:

| Question | CEQA Determination |
|---|---|
| a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? | No Impact |
| b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? | Less Than Significant Impact |
| c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | No Impact |
| d) Result in inadequate emergency access? | Less Than Significant Impact |

### CEQA Significance Determinations for Transportation

**a), c) No Impact**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* The project would be designed to be consistent with the CV Link project and would help accommodate multimodal travel (pedestrian, bicycle, and LSEV) consistent with the City of Indio's General Plan. Neither Build Alternative would conflict with any program, plan, ordinance, or policy addressing the circulation system.

Both Build Alternatives include the construction of non-vehicular and pedestrian access improvements. These include a 6.5-foot-wide sidewalk on both the west and east sides of Jackson Street along the limits of ultimate improvements. Alternatives 2 and 4 would require realignment of CVAG's planned CV Link multi-use trail within the project limits to accommodate the widening of Jackson Street and provide the minimum vertical undercrossing clearance. Design facilities for both Alternatives 2 and 4 would be fully accessible in accordance with Caltrans' Design Information Bulletin 82-05 "Pedestrian Accessibility Guidelines for Highway Projects," and will also be consistent with all applicable Americans with Disabilities Act-compatible crossing requirements. The project would improve existing interchange geometric deficiencies and would not alter any existing uses. Therefore, there would be no impact under CEQA.

**b), d) Less than Significant Impact**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* Under CEQA Guidelines section 15064.3, subdivision (b), Transportation projects that reduce, or have no impact on, vehicle miles traveled are presumed to cause a less than significant transportation impact. As both Build Alternatives will have no impact on vehicle miles traveled when compared to the No Build Alternative in the opening (2025) and design (2045) years, the impact is considered less than significant.

Construction activities have the potential to result in temporary, localized, site-specific disruptions during the construction period. This could lead to an increase in delay times for emergency response vehicles. Construction impacts would be short-term, lasting only the length of construction, and would cease upon completion of construction. Construction is estimated to last 24 months. However, with the implementation of a Traffic Management Plan (TMP), as identified in measure **TRA-1**, temporary emergency access impacts would be less than significant.

## XVIII Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

| Question | CEQA Determination |
|---|---|
| a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or | No Impact |
| b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | No Impact |

### CEQA Significance Determinations for Tribal Cultural Resources

**a), b), No Impact**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* No cultural resources were identified within the APE during the archaeological survey. The archaeological survey revealed the entire surface of the APE was disturbed previously by road and interstate construction in addition to channelization and regular maintenance of the CVSC. Given that no archaeological resources were identified as a result of archival research and field investigation, the likelihood for encountering intact subsurface archaeological deposits is low.

There are no listed resources or resources that appear 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) in the project area. Additionally, there are no resources 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. There are no significant resources for a California Native American tribe identified near or within the project study area.

Measures **CR-1** and **CR-2**, which are standard measures for all Department projects, are included to ensure that potential effects on cultural resources and human remains, should they exist and be discovered during construction, would be avoided.

## XIX Utilities and Service Systems

Would the project:

| Question | CEQA Determination |
|---|---|
| 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 |
| b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? | No Impact |
| 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? | No Impact |
| d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | No Impact |
| e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | No Impact |

### CEQA Significance Determinations for Utilities and Service Systems

**a) Less than Significant Impact**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* Utilities anticipated to be impacted from widening Jackson Street include relocating an Indio Water Authority water, a Frontier Communications telephone line, and four poles of IID's three-phase primary overhead line.

Additionally, there are also storm drain facilities, traffic signal equipment, electric, and water lines (CVWD) located within Jackson Street and the I-10 OC and Channel Bridge structures that do not need to be relocated, but minor adjustments may be required, which may include adjusting a manhole/water valve to new finished grade and reconstructing a meter/service equipment enclosure cabinet, etc.

It is anticipated that all utilities would remain in full service throughout the construction period and all relocations would be coordinated throughout the construction phase. However, service will most likely be interrupted when the connection is made from new to old lines outside the interchange. Impacts to homes or businesses are not anticipated; however, further discussion with the utility companies will be done to fully understand potential short-term power interruptions. It is anticipated that any service interruptions would be short-term.

For any utilities affected, all required coordination will be completed to establish exact procedures and specifications for addressing facilities impacted by the project. As necessary, additional analysis will be completed, and any measures identified in conjunction with the analysis will be implemented. Any required relocations of utilities will be completed prior to any project-related construction.

In addition, if relocation of any utilities requires use of area(s) beyond the construction footprint associated with the current proposed project, studies will be reviewed or performed as appropriate and applicable measures will be implemented. As such, impacts are considered less than significant.

The project would result in an increase in impervious surface area, which would increase stormwater runoff, however, it is not anticipated that either of the Build Alternatives would require or result in the construction of new stormwater drainage facilities or expansion of existing facilities.

**b), c), d), e) No Impact**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* The project has sufficient water supplies available to serve the project during normal, dry, and multiple dry years. There is no reasonably foreseeable future development associated with the project, as the project is located on an existing interstate facility near existing roadways, which provide access to existing and already planned development. Construction of the project is not expected to generate the need for additional wastewater treatment facilities or exceed wastewater treatment requirements of the Regional Water Quality Control Board. No new or expanded entitlements are needed with the project. The project would require disposal of demolition materials during construction. The generation of demolition materials would be temporary, lasting the duration of construction. It is the Department's policy to recycle materials whenever possible. Furthermore, the project would be in compliance with all federal, state, and local solid waste statutes and regulations.

## XX Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

| Question | CEQA Determination |
|---|---|
| a) Substantially impair an adopted emergency response plan or emergency evacuation plan? | No Impact |
| 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 |
| 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 |
| 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 |

### CEQA Significance Determinations for Wildfire

**a), b), c), d) No Impact**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* According to Cal Fire, the project area is within a Local Responsibility Area – Unincorporated for fire hazards. According to the County of Riverside General Plan, the project area is not within a Very High Fire Hazard Severity Zone.

## XXI Mandatory Findings of Significance

| Question | CEQA Determination |
|---|---|
| a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | Less Than Significant Impact |
| 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)? | No Impact |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | No Impact |

### CEQA Significance Determinations for Mandatory Findings of Significance

**a) Less Than Significant Impact**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* The project would not 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, or reduce the number or restrict the range of a rare or endangered plant or animal species. No temporary or permanent direct impacts to special-status plant species are anticipated to occur as a result of the project. However, development of the project has the potential to result in indirect impacts to special-status plant species that may occur within habitats surrounding the BSA such as fugitive dust or spread of non-native seeds. With implementation of avoidance and minimization measure **BIO-1**, the project would not result in indirect impacts to special-status plant species.

Burrowing owls were identified in the BSA during focused surveys. The project has the potential to result in both direct and indirect impacts to burrowing owl. Other special-status bird species observed or with the potential to occur within the BSA include loggerhead shrike (*Lanius ludovicianus*), black-tailed gnatcatcher (*Polioptila melanura*), Crissal thrasher (*Toxostoma crissale*) and Le Conte's thrasher (*Toxostoma lecontei*). The project has the potential to result in both direct and indirect impacts to these species. However, with implementation of the avoidance and minimization measures **BIO-4**, **BIO-5**, and **BIO-6**, and compliance with the CVMSHCP, no compensatory mitigation would be required and impacts are less than significant.

**b), c) No Impact**

*Build Alternatives 2 (Locally Preferred Alternative) and 4:* The proposed project would not result in cumulatively considerable impacts when combined with past, present, and reasonably foreseeable future projects and therefore would have no cumulative impacts. The project would not have environmental effects that would cause substantial effects on human beings, either directly or indirectly, as the purpose of the project is to improve the capacity at the I-10/Jackson Street interchange to accommodate the forecast travel demand for the 2045 design year within the City of Indio, accommodate multimodal travel consistent with the City of Indio's General Plan and regional plans, and improve existing interchange geometric deficiencies.

## 3.3 Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas (GHG) emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 led to increased efforts devoted to GHG emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of GHGs generated by human activity, including carbon dioxide ($CO_2$), methane ($CH_4$), nitrous oxide ($N_2O$), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride ($SF_6$), and various hydrofluorocarbons (HFCs). $CO_2$ is the most abundant GHG; while it is a naturally occurring component of Earth's atmosphere, fossil-fuel combustion is the main source of additional, human-generated $CO_2$.

Two terms are typically used when discussing how we address the impacts of climate change: "greenhouse gas mitigation" and "adaptation." Greenhouse gas mitigation covers the activities and policies aimed at reducing GHG emissions to limit or "mitigate" the impacts of climate change. Adaptation, on the other hand, is concerned with planning for and responding to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels). This analysis will include a discussion of both.

### Regulatory Setting

This section outlines federal and state efforts to comprehensively reduce GHG emissions from transportation sources.

#### Federal

To date, no national standards have been established for nationwide mobile-source GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level.

The National Environmental Policy Act (NEPA) (42 United States Code [USC] Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project.

The Federal Highway Administration (FHWA) recognizes the threats that extreme weather, sea-level change, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. FHWA therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices (FHWA 2019). This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values—"the triple bottom line of sustainability" (FHWA n.d.). Program and project elements that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life.

Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects. The most important of these was the Energy Policy and Conservation Act of 1975 (42 USC Section 6201) and Corporate Average Fuel Economy (CAFE)

Standards. This act establishes fuel economy standards for on-road motor vehicles sold in the United States. Compliance with federal fuel economy standards is determined through the CAFE program based on each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States.

Energy Policy Act of 2005, 109th Congress H.R.6 (2005–2006): This act sets forth an energy research and development program covering: (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) the establishment of the Office of Indian Energy Policy and Programs within the Department of Energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology.

The U.S. EPA in conjunction with the National Highway Traffic Safety Administration (NHTSA) is responsible for setting GHG emission standards for new cars and light-duty vehicles to significantly increase the fuel economy of all new passenger cars and light trucks sold in the United States. Fuel efficiency standards directly influence GHG emissions.

### State

California has been innovative and proactive in addressing GHG emissions and climate change by passing multiple Senate and Assembly bills and executive orders (EOs) including, but not limited to, the following:

EO S-3-05 (June 1, 2005): The goal of this EO is to reduce California's GHG emissions to: (1) year 2000 levels by 2010, (2) year 1990 levels by 2020, and (3) 80 percent below year 1990 levels by 2050. This goal was further reinforced with the passage of Assembly Bill (AB) 32 in 2006 and Senate Bill (SB) 32 in 2016.

Assembly Bill (AB) 32, Chapter 488, 2006, Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 codified the 2020 GHG emissions reduction goals outlined in EO S-3-05, while further mandating that the California Air Resources Board (ARB) create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." The Legislature also intended that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020 (Health and Safety Code [H&SC] Section 38551(b)). The law requires ARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

EO S-01-07 (January 18, 2007): This order sets forth the low carbon fuel standard (LCFS) for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by the year 2020. ARB re-adopted the LCFS regulation in September 2015, and the changes went into effect on January 1, 2016. The program establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the Governor's 2030 and 2050 GHG reduction goals.

Senate Bill (SB) 375, Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires ARB to set regional emissions reduction targets for passenger vehicles. The Metropolitan Planning Organization (MPO) for each region must then develop a "Sustainable Communities Strategy" (SCS) that integrates transportation, land-use, and housing policies to plan how it will achieve the emissions target for its region.

SB 391, Chapter 585, 2009, California Transportation Plan: This bill requires the State's long-range transportation plan to identify strategies to address California's climate change goals under AB 32.

EO B-16-12 (March 2012) orders State entities under the direction of the Governor, including ARB, the California Energy Commission, and the Public Utilities Commission, to support the rapid commercialization of zero-emission vehicles. It directs these entities to achieve various benchmarks related to zero-emission vehicles.

EO B-30-15 (April 2015) establishes an interim statewide GHG emission reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of GHG emissions to implement measures, pursuant to statutory authority, to achieve reductions of GHG emissions to meet the 2030 and 2050 GHG emissions reductions targets. It also directs ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent (MMTCO2e). Finally, it requires the Natural Resources Agency to update the state's climate adaptation strategy, Safeguarding California, every 3 years, and to ensure that its provisions are fully implemented.

SB 32, Chapter 249, 2016, codifies the GHG reduction targets established in EO B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.

SB 1386, Chapter 545, 2016, declared "it to be the policy of the state that the protection and management of natural and working lands … is an important strategy in meeting the state's greenhouse gas reduction goals, and would require all state agencies, departments, boards, and commissions to consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands."

AB 134, Chapter 254, 2017, allocates Greenhouse Gas Reduction Funds and other sources to various clean vehicle programs, demonstration/pilot projects, clean vehicle rebates and projects, and other emissions-reduction programs statewide.

SB 743, Chapter 386 (September 2013): This bill changes the metric of consideration for transportation impacts pursuant to CEQA from a focus on automobile delay to alternative methods focused on vehicle miles travelled, to promote the state's goals of reducing greenhouse gas emissions and traffic related air pollution and promoting multimodal transportation while balancing the needs of congestion management and safety.

SB 150, Chapter 150, 2017, Regional Transportation Plans: This bill requires ARB to prepare a report that assesses progress made by each metropolitan planning organization in meeting their established regional greenhouse gas emission reduction targets.

EO B-55-18 (September 2018) sets a new statewide goal to achieve and maintain carbon neutrality no later than 2045. This goal is in addition to existing statewide targets of reducing GHG emissions.

EO N-19-19 (September 2019) advances California's climate goals in part by directing the California State Transportation Agency to leverage annual transportation spending to reverse the trend of increased fuel consumption and reduce GHG emissions from the transportation sector. It orders a focus on transportation investments near housing, managing congestion, and encouraging alternatives to driving. This EO also directs ARB to encourage automakers to produce more clean vehicles, formulate ways to help Californians purchase them, and propose strategies to increase demand for zero-emission vehicles.

## Environmental Setting

The project is centrally located within the City of Indio at the crossroads of I-10, Jackson Street, and the Coachella Valley Stormwater Channel. Refer to Figure 1-1 (Regional Vicinity Map) and Figure 1-2 (Project Location Map). The project is located within the South Coast Air Basin (Basin) governed by the South Coast Air Quality Management District (SCAQMD). It is within the jurisdiction of the Southern California Association of Governments (SCAG), the local Metropolitan Planning Organization (MPO). The 2016-2040 SCAG Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) guides transportation and housing development in the project area.

Indio is a fast-growing city of 88,000 that also accommodates nearly 1.4 million visitors during seasonal events. I-10 is a major east-west transportation route that connects the City to Los Angeles County to the west and the California/Arizona state border to the east. Jackson Street is a north-south, two-lane divided arterial in Indio. The interchange is a major access point for existing residential and commercial development at the interchange area. The area surrounding the site supports a variety of land uses. The City has 19 land use and transportation projects in the project vicinity that are under various stages of design, approval, or construction (see Section 2.1.1, Land Use, Table 2-1).

The freeway and ramp junctions operate acceptably under existing (2018) conditions. However, the project traffic study indicates that the growth anticipated for the region by design year 2045 would cause conditions to degrade at several locations.

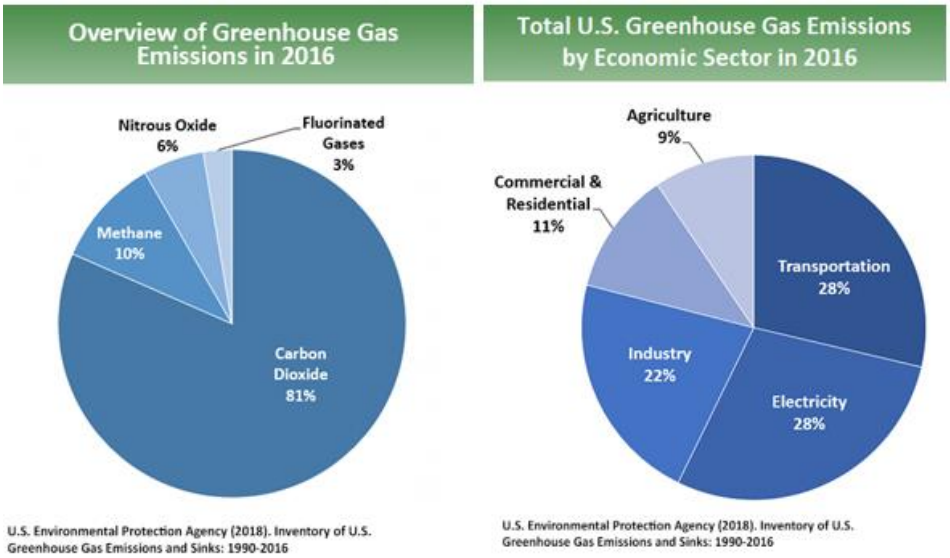
A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time, such as a calendar year. Tracking annual GHG emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. U.S. EPA is responsible for documenting GHG emissions nationwide, and CARB does so for the state, as required by H&SC Section 39607.4.

### National GHG Inventory

The U.S. EPA prepares a national GHG inventory every year and submits it to the United Nations in accordance with the Framework Convention on Climate Change. The inventory provides a comprehensive accounting of all human-produced sources of GHGs in the United States, reporting emissions of $CO_2$, $CH_4$, $N_2O$, HFCs, perfluorocarbons, $SF_6$, and nitrogen trifluoride. It also accounts for emissions of $CO_2$ that are removed from the atmosphere by "sinks" such as forests, vegetation, and soils that uptake and store $CO_2$ (carbon sequestration). The 1990–2016 inventory found that of 6,511 $MMTCO_2e$ GHG emissions in 2016, 81 percent consist of $CO_2$, 10 percent are $CH_4$, and 6 percent are $N_2O$; the balance consists of fluorinated gases (U.S. EPA, 2018a).[9] In 2016, GHG emissions from the transportation sector accounted for nearly 28.5 percent of U.S. GHG emissions. Figure 3-1 below provides an overview of U.S. 2016 GHG emissions by pollutant and a breakdown of the total U.S. 2016 GHG emissions by sector.

[9] U.S. Environmental Protection Agency. 2018. Inventory of U.S. Greenhouse Gas Emissions and Sinks. https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks

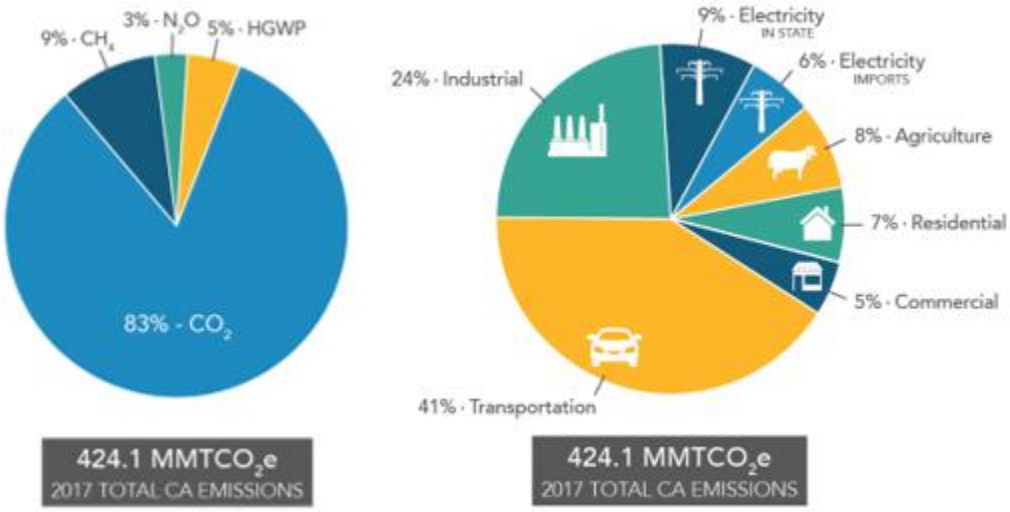
**Figure 3-1 U.S. 2016 Greenhouse Gas Emissions**




## State GHG Inventory

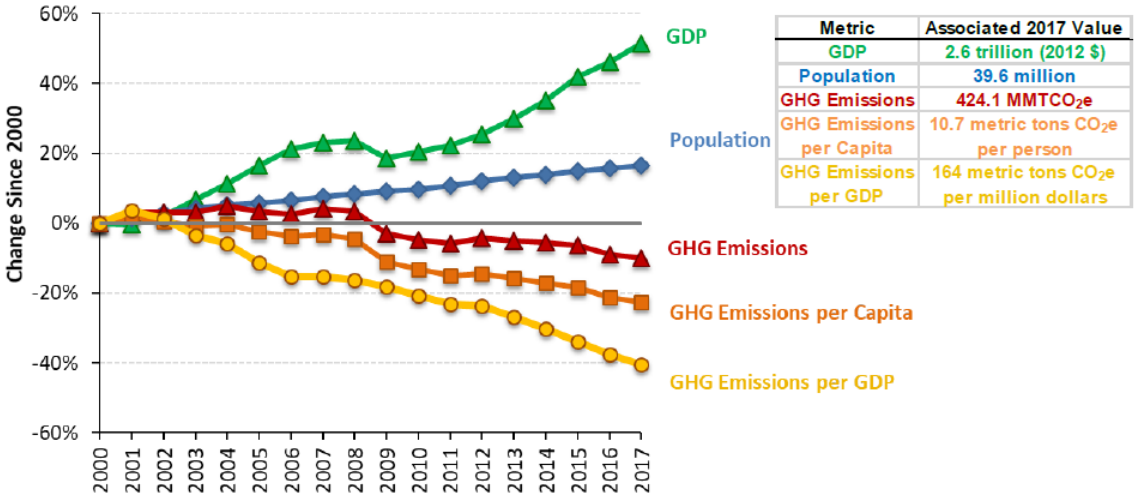
ARB collects GHG emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state's progress in meeting its GHG reduction goals. The 2019 edition of the GHG emissions inventory found total California emissions of 424.1 $MMTCO_2e$ for 2017, with the transportation sector responsible for 41 percent of total GHGs. It also found that overall statewide GHG emissions declined from 2000 to 2017 despite growth in population and state economic output (ARB 2019a).

**Figure 3-2 California 2017 Greenhouse Gas Emissions**




(Source: CARB 2019b)

**Figure 3-3 Change in California GDP, Population, and GHG Emissions since 2000**




(*Source*: CARB 2019b)

AB 32 required CARB to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020, and to update it every 5 years. CARB adopted the first scoping plan in 2008. The second updated plan, *California's 2017 Climate Change Scoping Plan*, adopted on December 14, 2017, reflects the 2030 target established in EO B-30-15 and SB 32. The AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce GHG emissions.

## Regional Plans

ARB sets regional targets for California's 18 MPOs to use in their RTP/SCSs to plan future projects that will cumulatively achieve GHG reduction goals. Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005 levels. CARB's regional reduction target for SCAG since October 2018 is 8 percent by 2020 and 19 percent by 2035, compared to 2005 levels (ARB 2019c). (The 2016 RTP/SCS used earlier targets of 8 percent per capita reduction by 2020 and a 13 percent per capita reduction by 2035. It should be noted that the SCAG planning region comprises Imperial, Orange, San Bernardino, and Ventura Counties in addition to Riverside County, and that targets apply in the region as a whole and to all GHG emission sources, not individual counties or transportation alone.) The proposed project is included in the SCAG 2016 (Amendment #3) as RTP ID RIV071252 (SCAG 2016), as discussed in Section 2.1.1, *Land Use*, above. RTP/SCS concluded that implementing the plan would result in an 8 percent per capita GHG reduction by 2020, an 18 percent reduction by 2035, and a 21 percent reduction by 2040. Other regional plans and policies within the project area are summarized in Table 3-1 below.

The Riverside County Climate Action Plan (Riverside County Planning Department 2018) serves as a tool to implement the goals and policies of the various elements of the Riverside County General Plan related to GHG emissions. It provides a list of specific actions that will reduce countywide GHG emissions consistent with the reduction targets of AB 32 (Riverside County Planning Department 2018: p. 1-3). The Riverside County General Plan Air Quality element (2018) addresses GHGs in the project area. Riverside County adopted a Climate Action Plan (CAP) in December 2015 (amended in 2018) (Riverside County Planning Department 2018) to facilitate streamlining project-level CEQA review by tiering from the CAP. The CAP includes a county GHG inventory and was amended into the Riverside

County General Plan in 2018 (Riverside County Planning Department 2015). Consistent with CARB's Scoping Plan reduction targets, Riverside County's CAP sets a target to reduce countywide GHG by 15 percent from 2008 levels. The Riverside County General Plan Air Quality Element and the CAP recommend a variety of measures to reduce GHG emissions.

The City of Indio is also covered in the Western Coachella Valley Area Plan. The Western Coachella Valley Area Plan (County of Riverside 2019) integrates and supplements the transportation policies of the Riverside County General Plan.

The Indio General Plan dates from 1994 and does not specifically address climate change or GHGs. However, the General Plan Circulation Element's Goal CIR-2 establishes Policy CIR-2.2, Bike Lane and Trails, to accommodate alternatives to private automobile transportation by providing a circulation network that allows safe and efficient movement of cyclists (see Section 2.1.1, *Land Use*). The project includes improvements to bicycle and pedestrian circulation.

**Table 3-1 Regional Greenhouse Gas Reduction Policies**

| Title | GHG Reduction Policies or Strategies |
|---|---|
| Southern California Association of Governments 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (adopted April 7, 2016) | • Preserve Our Existing System<br>• Manage Congestion<br>• Transportation Systems Management |
| Riverside County General Plan | Land Use Element<br>• Policy LU 2.1k(f): f. Site development to capitalize upon multi-modal transportation opportunities and promote compatible land use arrangements that reduce reliance on the automobile.<br>• Policy LU 11.4: Provide options to the automobile in communities, such as transit, bicycle and pedestrian trails, to help improve air quality.<br>• Policy LU 13.4: Incorporate safe and direct multi-modal linkages in the design and development of projects, as appropriate.<br>Circulation Element<br>• Policy C 1.2: Support development of a variety of transportation options for major employment and activity centers including direct access to transit routes, primary arterial highways, bikeways, park-n-ride facilities and pedestrian facilities.<br>• Policy C 1.7: Encourage and support the development of projects that facilitate and enhance the use of alternative modes of transportation, including pedestrian-oriented retail and activity centers, dedicated bicycle lanes and paths, and mixed-use community centers.<br>• Policy C 5.2: Encourage the use of drought-tolerant native plants and the use of recycled water for roadway landscaping.<br>• Policy C 20.14 (Previously C 20.12): Encourage the use of alternative non-motorized transportation and the use of non-polluting vehicles. |
| Riverside County General Plan Amendments (Adopted July 17, 2018) | Air Quality Element<br>• Policy AQ 20.1: Reduce VMT by requiring expanded multi-modal facilities and services that provide transportation alternatives, such as transit, bicycle and pedestrian modes. Improve connectivity of the multi-modal facilities by providing linkages between various uses in the developments.<br>• Policy AQ 20.3: Reduce VMT and GHG emissions by improving circulation network efficiency.<br>Circulation Element (Amendment No. 960 – Public Review Draft, February 2015) |

| Title | GHG Reduction Policies or Strategies |
|---|---|
| | • Policy C 1.8: Ensure that all development applications comply with the California Complete Streets Act of 2008 as set forth in California Government Code Sections 65040.2 and 65302. |
| Riverside County Climate Action Plan (2018) | Transportation Measures<br>• R2-T5: Roadway Improvements including Signal Synchronization and Transportation Flow Management<br>• R2-T6: Provide a Comprehensive System of Facilities for Non-motorized Transportation<br>• R2-T8: Anti-Idling Enforcement |
| Western Coachella Valley Area Plan (WCVAP) | • Policy 18.2: Implement the Trails and Bikeway System, Figure 8, as discussed in the Non-motorized Transportation section of the General Plan Circulation Element. |
| Indio General Plan 2020 | Circulation Element<br>• Goal CIR-1: Provide a circulation system to serve the internal circulation needs of the City while also addressing the intercommunity through-travel needs.<br>• Goal CIR-2: Accommodate alternatives to private automobile transportation that meet the needs of all City residents.<br>• Goal CIR-3: Promote a regional transportation system that serves existing and future travel between Indio and other populations and employment centers within the region.<br>– Policy CIR-3-1 Regional Transportation Facilities. Interface with appropriate jurisdictions and agencies to encourage the timely improvement of roadway and transit facilities which address area wide and regional travel needs. |

## Project Analysis

GHG emissions from transportation projects can be divided into those produced during operation of the SHS and those produced during construction. The primary GHGs produced by the transportation sector are $CO_2$, $CH_4$, $N_2O$, and HFCs. $CO_2$ emissions are a product of the combustion of petroleum-based products, like gasoline, in internal combustion engines. Relatively small amounts of $CH_4$ and $N_2O$ are emitted during fuel combustion. In addition, a small amount of HFC emissions are included in the transportation sector.

The CEQA Guidelines generally address greenhouse gas emissions as a cumulative impact due to the global nature of climate change (Pub. Resources Code Section 21083(b)(2)). As the California Supreme Court explained, "because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself." (*Cleveland National Forest Foundation v. San Diego Assn. of Governments* (2017) 3 Cal.5th 497, 512.) In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (CEQA Guidelines Sections 15064(h)(1) and 15130).

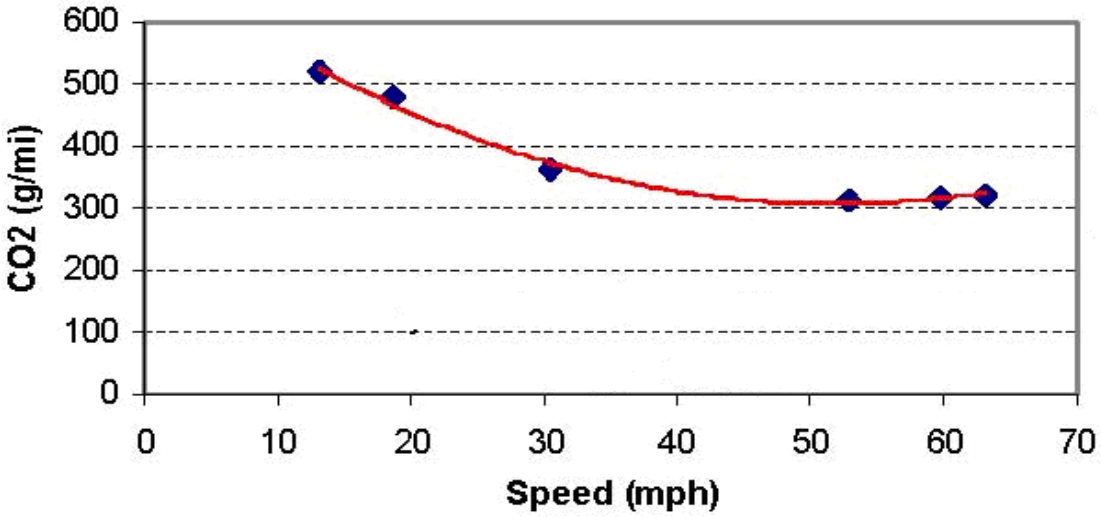
To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. Although climate change is ultimately a cumulative impact, not every individual project that emits greenhouse gases must necessarily be found to contribute to a significant cumulative impact on the environment.

### *Operational Emissions*

Recently, GHG and climate change impacts have been a major focus of federal and state regulatory agencies. One of the main strategies in the Statewide Climate Action Program (CAP) to reduce GHG

emissions is to make California's transportation system more efficient. The highest levels of $CO_2$ come from mobile sources, such as automobiles, and occur at stop-and-go speeds (zero to 25 mph) and speeds over 55 mph. The most severe $CO_2$ emissions occur from zero to 25 mph (see Figure 3-4). The remainder of GHG emissions comes from other modes of transportation, including freight trucks, commercial aircraft, ships, boats, and trains, as well as pipelines and lubricants. Because $CO_2$ emissions represent the greatest percentage of GHG emissions it has been selected as a proxy within the following analysis for potential climate change impacts generally expected to occur.

**Figure 3-4 Fleet $CO_2$ Emissions versus Speed (Highway)**




Source: Center for Clean Air Policy— http://www.ccap.org/Presentations/Winkelman%20TRB%202004%20(1-13-04).pdf

Many studies show that an increase in traffic volume is related to higher overall $CO_2$ emissions. The intent of a highway design project is to relieve traffic congestion by enhancing operations and improving travel times, thus reducing GHG emissions, particularly $CO_2$. Four primary strategies can reduce GHG emissions from transportation sources: (1) improving the transportation system and operational efficiencies, (2) reducing travel activity, (3) transitioning to lower GHG-emitting fuels, and (4) improving vehicle technologies/efficiency. To be most effective, all four strategies should be pursued concurrently.

The City of Indio, in cooperation with Caltrans District 8 and the County of Riverside, proposes to reconstruct and widen Jackson Street at I-10 to improve the operational performance of the Jackson Street interchange. The City identified Jackson Street as a major north to south arterial that provides access to the interstate system and connects the northern and southern halves of the City across I-10 and the CVSC. The I-10/Jackson Street interchange was identified as a top ten project in the Coachella Valley due to planned growth and limited capacity.

The project is listed in the SCAG 2016–2040 RTP under project ID number RIV071252. The 2016–2040 RTP was approved by FHWA on June 1, 2016. Implementation of the 2016 RTP/SCS would result in an 8 percent reduction in GHG emissions per capita by 2020, an 18 percent reduction by 2035, and a 21 percent reduction by 2040, compared with 2005 levels. This would meet or exceed the State's mandated reductions at the time the RTP/SCS was prepared, which were 8 percent by 2020 and 13 percent by 2035.

The project proposal is included, but is not consistent with the current RTP cycle – 2016 RTP (RIV071252) titled, "2016–2040 Regional Transportation Plan / Sustainable Communities Strategy" –

project description, cost, and schedule. Modeling amendments were submitted through the City to Riverside County Transportation Commission and SCAG in October 2018 and August 2019.

*2016 RTP Project Description (Approved):*

On I-10 in City of Indio at Jackson St IC (at PM 55.575): Reconstruct/widen IC from 2 to 6 through lanes including bridge over Whitewater River Channel from Showcase Pkwy to South of Whitewater River Channel, reconstruct/widen ramps 1 to 2 lanes, modify traffic signals (EA: 08-0M9100)

*2020 RTP Project Description (Proposed):*

On I-10 in City of Indio at Jackson St IC (at PM 55.575): Reconstruct/widen IC from 2 to 6 through lanes including bridge over Whitewater River Channel from Showcase Pkwy to South of Whitewater River Channel, reconstruct/widen ramps 1 to 2 lanes, modify traffic signals (EA: 08-0M9100). The 2019 FTIP project description is consistent with the 2020 RTP description described above and was updated with the October 4, 2018 RTP modeling amendment.

The project is designed to reduce congestion, improve traffic operations, accommodate travel demand due to planned and approved developments, and improve safety. As described in Section 1.5.3, although TSM measures alone would not meet the purpose and need of the project, several TSM measures are included in the build alternatives: improved sidewalks, new access ramps to the CV Link recreational facility, and ramp metering at the I-10 WB and EB on-ramps. Reversible lanes were not considered for the I-10/Jackson Street Interchange Improvement Project because it is 100 percent locally funded and was programmed prior to January 1, 2017, when Assembly Bill 2542 mandating their consideration became effective (see Section 1.5.8.4).

During design year (2045) under the No Build Alternative, the eastbound I-10 study segments would operate acceptably. Westbound I-10 would have insufficient capacity for the 2045 traffic demand, and consequently result in deficient operations of LOS E at the Jackson Street on-ramp and Monroe Street off-ramp during the AM peak hour and LOS E or F conditions at all study segments from the Golf Center Parkway on-ramp to Monroe Street off-ramp during the PM peak hour. Additionally, under the No Build Alternative, the Jackson Street and I-10 eastbound ramps intersection would operate at LOS E under the AM peak hour. During the PM peak hour, all study intersections along Jackson Street except for the Jackson Street and Avenue 42 intersection would expect capacity inadequacy and operate at unacceptable LOS E or F.

For design year (2045) Build Alternative 2, the addition of a westbound auxiliary lane, would improve two freeway locations such that all freeway segments would operate acceptably during the AM peak hour. The eastbound ramp terminal intersection would also be improved to acceptable operations. The number of vehicles served, vehicle hours of delay, and delay per vehicle would also be slightly improved compared to the No-Build Alternative during the AM peak hour. During the PM peak hour, Alternative 2 would improve two freeway segments to acceptable operations with the addition of a westbound auxiliary lane while three locations would be improved to better than No-Build. Five study intersections would also be improved from unacceptable to acceptable during the PM peak hour. When compared to the No Build Alternative, the number of vehicles served would be increased by almost 4,000 vehicles, or 9 percent. Both vehicle hours of delay and delay per vehicle would also be decreased by approximately 20 percent when compared to the No-Build Alternative.

Under design year (2045) Build Alternative 4, the addition of a westbound auxiliary lane would improve operations at two freeway locations. While the number of vehicles served would increase by 60 vehicles compared to the No-Build Alternative, vehicle hours of delay and delay per vehicle would both be reduced by 3 percent under Alternative 4. During the PM peak, with the addition of a westbound auxiliary

lane, two freeway segments would be improved to acceptable operations, while three segments operating unacceptably under the No-Build Alternative would continue to operate unacceptably but have decreased density. Under Alternative 4, all five intersections on Jackson Street would be improved from unacceptable to acceptable operations. When compared to the No-Build Alternative, the number of vehicles served would increase by almost 4,000 vehicles, or 9 percent. Both vehicle hours of delay and delay per vehicle would decrease by approximately 21 percent when compared to the No-Build Alternative.

### *Quantitative Analysis*

A GHG emissions analysis was conducted to estimate GHG emissions created by the operation of the project on the surrounding area. GHG emissions from the operation of the project are primarily associated with the redistribution of vehicles on the new interchange along the I-10 at Jackson Street and local street improvements. Changes in these traffic patterns along the roadway could potentially change the overall concentrations of GHG emissions from vehicle exhaust emissions throughout the proposed project area.

Operational emissions take into account long-term changes in emissions due to the project (excluding the construction phase). The operational emissions compare forecasted emissions for existing/baseline, No-Build, and both Build Alternatives (Build Alternative 2 and Build Alternative 4). CT-EMFAC2017 was used to calculate operational emissions, based on the Traffic Operations Report (TOAR) (Fehr & Peers, 2019) developed for this project. CT-EMFAC2017 is a California-specific project-level analysis tool for modeling emissions of criteria pollutants, MSATs, and carbon dioxide from on-road vehicles.

VMT is expected to increase between Existing (2018) and the Opening Year (2025) and Design Year (2045) scenarios under the No Build Alternative and both Build Alternatives. The expected increase in VMT across all alternatives, including the No Build Alternative, is a result of land use growth assumed in the future year travel demand model. CVAG, which includes land use assumptions consistent with the 2016 SCAG RTP, was used to forecast future traffic volume and VMT in the study area. The CVAG model predicts significant growth in the number of households and employment within the City of Indio, the Indio Sphere, and the Coachella Valley will occur by 2040. Within the City of Indio and the Coachella Valley, both employment and households are projected to increase at 2 percent per year between the model base year (2008) and future year (2040). The Indio Sphere will see higher growth rates, with a 6 percent per year increase in households and a 3 percent increase in employment. Traffic volume and VMT increases within the project study area were found to be consistent with the increase in land use assumed in the travel demand model, growing at approximately 2 percent per year for both the Opening Year (2025) and Design Year (2045) scenarios.

VMT for the project area was calculated from the data in the approved Traffic Volume Report and Traffic Operations Analysis Report (Fehr & Peers 2019) and vehicles per hour were estimated utilizing the link lengths for each scenario. Model defaults were used for the VMT fraction for trucks and non-trucks, while project-specific VMT distribution by speed was used. These results are used only for a comparison analysis between the proposed project alternatives as there are no official impact thresholds provided for GHG emissions. As shown in Table 3-2, the results of the GHG emission analysis show that future $CO_2$ emissions will decrease from Existing (baseline) conditions. Furthermore, $CO_2$ emissions will also remain the same from No-Build to Build Alternative 2. Due to a slight decrease in delay, emission concentrations decrease slightly from No Build to Build Alternative 4.

**Table 3-2 Modeled Annual $CO_2$ Emissions and Vehicle Miles Traveled, by Alternative**

| Alternative | $CO_2$ Emissions (Metric Tons/Year) | Annual Vehicle Miles Traveled[1] |
|---|---|---|
| **Existing/Baseline [2018]** | 666 | 302,895,250 |
| **Open to Traffic [2025]** | | |
| No Build | 614 | 344,045,350 |
| Build Alternative 2 | 614 | 344,045,350 |
| Build Alternative 4 | 614 | 344,045,350 |
| **20-Year Horizon/Design-Year [2045]** | | |
| No Build | 634 | 461,586,300 |
| Build Alternative 2 | 634 | 461,586,300 |
| Build Alternative 4 | 634 | 461,586,300 |

$CO_2$ = carbon dioxide

[1] Annual VMT values derived from Daily VMT values from the I-10/Jackson Street Interchange Project Traffic Operations Report, September 2019.

Source: CT-EMFAC2017

Operation of the project would not increase GHG emissions from mobile sources despite the capacity-enhancing features of the project, which include the addition of an auxiliary lane. A sidewalk and shared path for bikes and LSEVs will increase opportunities for non-motorized transportation and provide connectivity with the planned CV Link multi-use trail. These features support GHG-related goals and policies of the RTP, the Riverside County and City of Indio general plans, the Western Coachella Valley Area Plan, and the Riverside County CAP. Implementation of the project, along with other projects included in the regional 2016– 2040 RTP, should further improve traffic flow and decrease congestion within the region.

While CT-EMFAC has a rigorous scientific foundation and has been vetted through multiple stakeholder reviews, its GHG emission rates are based on tailpipe emission test data.[10] Moreover, the model does not account for factors such as the rate of acceleration and vehicle aerodynamics, which influence the amount of emissions generated by a vehicle. GHG emissions quantified using CT-EMFAC are therefore estimates and may not reflect actual physical emissions. Though CT-EMFAC is currently the best available tool for calculating GHG emissions from mobile sources, it is important to note that the GHG results are only useful for a comparison among alternatives.

[10] This analysis does not currently account for the effects of the US National Highway Traffic Safety Administration and Environmental Protection Agency SAFE (Safer Affordable Fuel-Efficient) Vehicles Rule. Part One revoking California's authority to set its own greenhouse gas emissions standards was published on September 27, 2019, and effective November 26, 2019. The SAFE Vehicles Rule Part 2 became effective June 30, 2020 and amends existing Corporate Average Fuel Economy (CAFE) and tailpipe carbon dioxide emissions standards for passenger cars and light trucks and establishes new standards covering model years 2021 through 2026. The rule retains the model year 2020 standards for both programs through model year 2026. The modeling for this project does not include adjustment factors for greenhouse gas emissions that would account for the SAFE Rule. However, modeling these estimates with EMFAC or CT-EMFAC remains the most precise means of estimating future greenhouse gas emissions.

### Construction Emissions

Construction GHG emissions would result from material processing, on-site construction equipment, and traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be offset to some degree by longer intervals between maintenance and rehabilitation activities.

The construction period for the proposed project is expected to occur over 2 stages for a total of approximately 24 months. Construction emissions were estimated using the latest Sacramento Metropolitan Air Quality Management District's Road Construction Emissions Model (RCEM), Version 9.0.0.

Construction emissions were estimated for both Build Alternatives using default equipment inventories provided in RCEM, project construction scheduling information provided by the project engineer, and emissions factors from the EMFAC 2017 and OFFROAD models. The emissions presented are based on the worst-case maximum daily construction emissions.

Overall project construction emissions of GHGs would be 3,928 metric tons $CO_2e$ (comprising $CO_2$, $CH_4$, and $N_2O$) over the approximately 24-month construction period, which would be approximately 0.07 percent of Riverside County's estimated 2020 GHG Business as Usual inventory.

Construction activities for both Build Alternative 2 and Build Alternative 4 would be about the same. GHG emissions for Alternative 4 would be slightly more than Alternative 2 because the Diverging Diamond configuration would require additional structure for traffic to cross to opposite sides between signalized crossover intersections. However, emissions would still be within approximately 0.07 percent of Riverside County's estimated 2020 GHG Business as Usual inventory.

All construction contracts include Caltrans Standard Specifications Section 7-1.02A and 7-1.02C, Emissions Reduction, which require contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all CARB emission reduction regulations; and Section 14-9.02, Air Pollution Control, which requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions. The project is located within the South Coast Air Basin and would be subject to all applicable SCAQMD Rules and Regulations. In addition, the project would implement all applicable actions that would reduce countywide GHG emissions in accordance with the Riverside County Climate Action Plan. See Table 3-1 for specific reduction policies and strategies.

### CEQA Conclusion

While the proposed project will result in GHG emissions during construction, it is anticipated that the project will not result in any increase in operational GHG emissions. The proposed project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. With implementation of construction GHG-reduction measures, the impact would be less than significant.

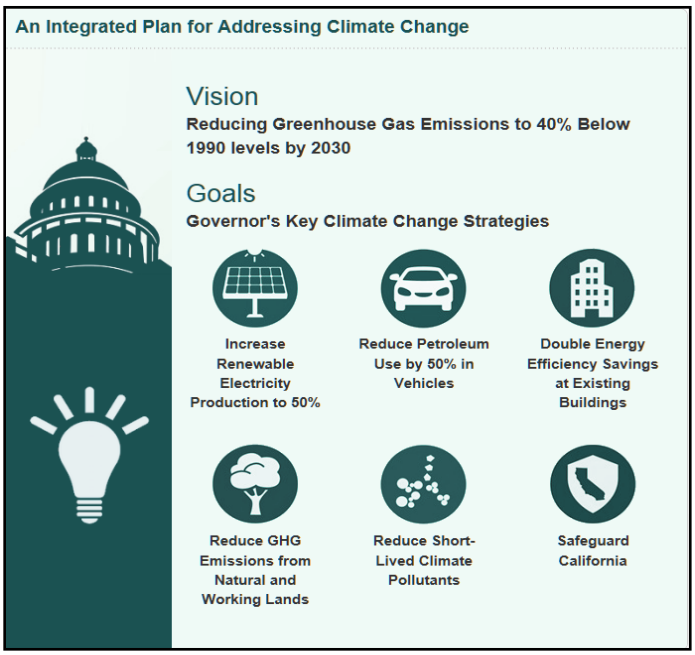
Caltrans is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following section.

## 3.4 Greenhouse Gas Reduction Strategies

### Statewide Efforts

Major sectors of the California economy, including transportation, will need to reduce emissions to meet the 2030 and 2050 GHG emissions targets. Former Governor Edmund G. Brown promoted GHG reduction goals that involved: (1) reducing today's petroleum use in cars and trucks by up to 50 percent; (2) increasing from one-third to 50 percent our electricity derived from renewable sources; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farms and rangelands, forests, and wetlands so they can store carbon; and (6) periodically updating the state's climate adaptation strategy, *Safeguarding California*.

**Figure 3-5 California Climate Strategy**




The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled (VMT). A key state goal for reducing GHG emissions is to reduce today's petroleum use in cars and trucks by up to 50 percent by 2030 (State of California 2019).

In addition, SB 1386 (Wolk 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that policy in their own decision making. Trees and vegetation on forests, rangelands, farms, and wetlands remove carbon dioxide from the atmosphere through biological processes and sequester the carbon in above- and below-ground matter.

### Caltrans Activities

Caltrans continues to be involved on the Governor's Climate Action Team as the CARB works to implement EOs S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. EO B-30-15, issued

in April 2015, and SB 32 (2016), set an interim target to cut GHG emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

### California Transportation Plan (CTP 2040)

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. In 2016, Caltrans completed the *California Transportation Plan 2040*, which establishes a new model for developing ground transportation systems, consistent with $CO_2$ reduction goals. It serves as an umbrella document for all the other statewide transportation planning documents. Over the next 25 years, California will be working to improve transit and reduce long-run repair and maintenance costs of roadways and developing a comprehensive assessment of climate-related transportation demand management and new technologies rather than continuing to expand capacity on existing roadways.

SB 391 (Liu 2009) requires the CTP to meet California's climate change goals under AB 32. Accordingly, the CTP 2040 identifies the statewide transportation system needed to achieve maximum feasible GHG emission reductions while meeting the state's transportation needs. While MPOs have primary responsibility for identifying land use patterns to help reduce GHG emissions, CTP 2040 identifies additional strategies in Pricing, Transportation Alternatives, Mode Shift, and Operational Efficiency.

### Caltrans Strategic Management Plan

The Strategic Management Plan, released in 2015, creates a performance-based framework to preserve the environment and reduce GHG emissions, among other goals. Specific performance targets in the plan that will help to reduce GHG emissions include:

- Increasing percentage of non-auto mode share
- Reducing VMT
- Reducing Caltrans' internal operational (buildings, facilities, and fuel) GHG emissions

### Funding and Technical Assistance Programs

In addition to developing plans and performance targets to reduce GHG emissions, Caltrans also administers several sustainable transportation planning grants. These grants encourage local and regional multimodal transportation, housing, and land use planning that furthers the region's RTP/SCS; contribute to the State's GHG reduction targets and advance transportation-related GHG emission reduction project types/strategies; and support other climate adaptation goals (e.g., *Safeguarding California*).

### Caltrans Policy Directives and Other Initiatives

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) is intended to establish a Department policy that will ensure coordinated efforts to incorporate climate change into Departmental decisions and activities. *Caltrans Activities to Address Climate Change* (April 2013) provides a comprehensive overview of Caltrans' statewide activities to reduce GHG emissions resulting from agency operations.

## Project-Level GHG Reduction Strategies

The following measures will also be implemented in the project to reduce GHG emissions and potential climate change impacts from the project.

**GHG-1:** The contractor must comply with SCAQMD's rules, ordinances, and regulations regarding air quality restrictions.

**GHG-2:** The project will incorporate the use of energy efficient lighting.

**GHG-3:** Bids will be solicited that include use of energy and fuel-efficient fleets in accordance with current practices.

**GHG-4:** The project will incorporate complete streets components, specifically pedestrian sidewalks, and bicycle and LSEV paths in the shoulder.

**GHG-5:** The project will maintain equipment in proper tune and working condition.

**GHG-6:** Idling is limited to 5 minutes for delivery and dump trucks and other diesel-powered equipment (with some exceptions).

## Riverside County Activities

The County of Riverside CAP establishes the County's sustainability and conservation measures that would enable achievement of reduction targets established pursuant to AB 32. The 2019 update to the CAP establishes a framework under which future projects will be designed for the purposes of reducing GHG emissions (County of Riverside 2019). Reduction measures includes alternative transportation options including increased residential density, mixed use development, increased public transit, and reduced parking in transit-serving areas; energy efficiency for residential and non-residential land uses including compliance with Title 24 requirements, renewable energy retrofits; clean energy such as solar panel installation; water efficiency; solid waste reduction measures; and tree planting for shading and energy saving. Transportation measures include roadway improvements such as signal synchronization and transportation flow management, a comprehensive system of facilities for non-motorized transportation, and anti-idling enforcement.

## Adaptation

Reducing GHG emissions is only one part of an approach to addressing climate change. Caltrans must plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and in the frequency and intensity of wildfires. Flooding and erosion can damage or wash out roads; longer periods of intense heat can buckle pavement and railroad tracks; storm surges combined with a rising sea level can inundate highways. Wildfire can directly burn facilities and indirectly cause damage when rain falls on denuded slopes that landslide after a fire. Effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. Accordingly, Caltrans must consider these types of climate stressors in how highways are planned, designed, built, operated, and maintained.

### Federal Efforts

Under NEPA assignment, Caltrans is obligated to comply with all applicable federal environmental laws and FHWA NEPA regulations, policies, and guidance.

The U.S. Global Change Research Program (USGCRP) delivers a report to Congress and the president every 4 years, in accordance with the Global Change Research Act of 1990 (15 USC ch. 56A Section 2921 et seq.). The *Fourth National Climate Assessment*, published in 2018, presents the foundational science and the "human welfare, societal, and environmental elements of climate change and variability for 10 regions and 18 national topics, with particular attention paid to observed and projected risks, impacts, consideration of risk reduction, and implications under different mitigation pathways." Chapter 12, "Transportation," presents a key discussion of vulnerability assessments. It notes that "asset owners and operators have increasingly conducted more focused studies of particular assets that consider multiple climate hazards and scenarios in the context of asset-specific information, such as design lifetime" (USGCRP 2018).

The U.S. DOT Policy Statement on Climate Adaptation in June 2011 committed the federal Department of Transportation to "integrate consideration of climate change impacts and adaptation into the planning, operations, policies, and programs of DOT in order to ensure that taxpayer resources are invested wisely, and that transportation infrastructure, services and operations remain effective in current and future climate conditions" (U.S. DOT 2011).

FHWA order 5520 (*Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events*, December 15, 2014) established FHWA policy to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. FHWA has developed guidance and tools for transportation planning that foster resilience to climate effects and sustainability at the federal, state, and local levels (FHWA 2019).

### State Efforts

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system. *California's Fourth Climate Change Assessment* (2018) is the state's effort to "translate the state of climate science into useful information for action" in a variety of sectors at both statewide and local scales. It adopts the following key terms used widely in climate change analysis and policy documents:

- *Adaptation* to climate change refers to adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.
- *Adaptive capacity* is the "combination of the strengths, attributes, and resources available to an individual, community, society, or organization that can be used to prepare for and undertake actions to reduce adverse impacts, moderate harm, or exploit beneficial opportunities."
- *Exposure* is the presence of people, infrastructure, natural systems, and economic, cultural, and social resources in areas that are subject to harm.
- *Resilience* is the "capacity of any entity—an individual, a community, an organization, or a natural system—to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience." Adaptation actions contribute to increasing resilience, which is a desired outcome or state of being.
- *Sensitivity* is the level to which a species, natural system, or community, government, etc., would be affected by changing climate conditions.
- *Vulnerability* is the "susceptibility to harm from exposure to stresses associated with environmental and social change and from the absence of capacity to adapt." Vulnerability can increase because of physical (built and environmental), social, political, and/or economic factor(s). These factors include,

but are not limited to: ethnicity, class, sexual orientation and identification, national origin, and income inequality. Vulnerability is often defined as the combination of sensitivity and adaptive capacity as affected by the level of exposure to changing climate.

Several key state policies have guided climate change adaptation efforts to date. Recent state publications produced in response to these policies draw on these definitions.

EO S-13-08, issued by then-governor Arnold Schwarzenegger in November 2008, focused on sea-level rise and resulted in the *California Climate Adaptation Strategy* (2009), updated in 2014 as *Safeguarding California: Reducing Climate Risk* (Safeguarding California Plan). The Safeguarding California Plan offers policy principles and recommendations and continues to be revised and augmented with sector-specific adaptation strategies, ongoing actions, and next steps for agencies.

EO S-13-08 also led to the publication of a series of sea-level rise assessment reports and associated guidance and policies. These reports formed the foundation of an interim *State of California Sea-Level Rise Interim Guidance Document* (SLR Guidance) in 2010, with instructions for how state agencies could incorporate "sea-level rise (SLR) projections into planning and decision making for projects in California" in a consistent way across agencies. The guidance was revised and augmented in 2013. *Rising Seas in California – An Update on Sea-Level Rise Science* was published in 2017 and its updated projections of sea-level rise and new understanding of processes and potential impacts in California were incorporated into the *State of California Sea-Level Rise Guidance Update* in 2018.

EO B-30-15, signed in April 2015, requires state agencies to factor climate change into all planning and investment decisions. This EO recognizes that effects of climate change other than sea-level rise also threaten California's infrastructure. At the direction of EO B-30-15, the Office of Planning and Research published *Planning and Investing for a Resilient California: A Guidebook for State Agencies* in 2017, to encourage a uniform and systematic approach. Representatives of Caltrans participated in the multi-agency, multidisciplinary technical advisory group that developed this guidance on how to integrate climate change into planning and investment.

AB 2800 (Quirk 2016) created the multidisciplinary Climate-Safe Infrastructure Working Group, which in 2018 released its report, *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California*. The report provides guidance to agencies on how to address the challenges of assessing risk in the face of inherent uncertainties still posed by the best available science on climate change. It also examines how state agencies can use infrastructure planning, design, and implementation processes to address the observed and anticipated climate change impacts.

## Caltrans Adaptation Efforts

### *Caltrans Vulnerability Assessments*

Caltrans is conducting climate change vulnerability assessments to identify segments of the State Highway System vulnerable to climate change effects including precipitation, temperature, wildfire, storm surge, and sea-level rise. The approach to the vulnerability assessments was tailored to the practices of a transportation agency, and involves the following concepts and actions:

- *Exposure* – Identify Caltrans assets exposed to damage or reduced service life from expected future conditions.
- *Consequence* – Determine what might occur to system assets in terms of loss of use or costs of repair.
- *Prioritization* – Develop a method for making capital programming decisions to address identified risks, including considerations of system use and/or timing of expected exposure.

The climate change data in the assessments were developed in coordination with climate change scientists and experts at federal, state, and regional organizations at the forefront of climate science. The findings of the vulnerability assessments will guide analysis of at-risk assets and development of adaptation plans to reduce the likelihood of damage to the State Highway System, allowing Caltrans to both reduce the costs of storm damage and to provide and maintain transportation that meets the needs of all Californians.

## Project Adaptation Analysis

### *Sea-Level Rise*

The proposed project is outside the coastal zone and not in an area subject to sea-level rise. Accordingly, direct impacts to transportation facilities due to projected sea-level rise are not expected.

### *Floodplains*

The project crosses the CVSC, which conveys the Whitewater River flows from the base of the San Bernardino Mountains to the Salton Sea. Within the project limits the channel is a FEMA mapped Zone AE floodplain contained within provisionally accredited levees (FEMA Panel number 06065C2252H, dated May 29, 2015). The I-10 Jackson Interchange is not located in a designated FEMA flood zone except for a portion of the right-of-way at the south side of on-ramp to east bound I-10. Operation of the proposed project would result in an increase in impervious surface areas, which would result in an increase in stormwater runoff. During the operational phase, runoff from the corridor would be conveyed to Caltrans-approved treatment BMPs. Stormwater within the project boundary will be collected in a series of drainage systems maintained by Caltrans and the City of Indio. Off-site flow northwest of the interchange is collected and conveyed within an existing 72-inch CMP pipe located 600 feet west of the Jackson Street overcrossing that discharges to CVSC. The proposed roadway improvements to Jackson Street and the I-10 on-ramps and off-ramps will not alter the existing off-site drainage pattern.

The increase of stormwater runoff within the project limits due to the increased impervious area of the proposed improvements is small in comparison to the large off-site flows. The proposed BMPs also will attenuate small storm frequency events. Existing off-site drainage systems will be protected in place to the maximum extent possible. Where proposed improvements impact the existing off-site drainage systems, these stems will be extended or realigned to accommodate the proposed roadway improvements. Since the increase of runoff to the existing off-site drainage systems is minimal in comparison to the total tributary flow to the system due to time of concentration comparison, off-site design flows will remain as in existing condition. Existing culverts will be extended or relocated where required to accommodate the proposed roadway improvements.

The draft *District 8 Climate Change Vulnerability Assessment* (Caltrans 2018) indicates that the project area is in a region of Riverside County anticipated to experience a less than 5 percent increase in 100-year storm precipitation depth through 2085. Accordingly existing drainage systems as modified for the project would be able to accommodate such a change.

# Chapter 4 Comments and Coordination

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and to identify potential impacts and avoidance, minimization, and/or mitigation measures and related environmental requirements. Agency consultation and public participation for this project has been accomplished through a variety of formal and informal methods, including: PDT meetings, and interagency coordination meetings. In addition to consultation with participating agencies, the Environmental Document process will include public coordination by providing the public an opportunity to comment on the document during the public review period. This chapter summarizes the results of the Department's efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

## 4.1 Consultation and Coordination

The following meetings and/or consultation with resource agencies have occurred in conjunction with development of the project.

### Air Quality Coordination

Pursuant to the interagency consultation requirement of 40 CFR 93.105 (c)(1)(i), the proposed project was submitted to SCAG's TCWG for consideration at its meeting on March 26, 2019. At that meeting, the members of the TCWG confirmed that the proposed project is not a Project of Air Quality Concern (POAQC). A copy of TCWG's determination is included in Section 3.3 at the end of this chapter.

The proposed project still requires an air quality conformity analysis determination letter from FHWA. FHWA makes their determination based on the air quality conformity analysis prepared for the project. This is done after the preferred alternative is selected, which will not occur until after circulation of this Environmental Document is completed.

### United States Fish and Wildlife Service

No agency coordination or professional contacts have been initiated at this time for the proposed project. A USFWS Species List was obtained from the USFWS Carlsbad Office on August 13, 2020. A copy of the USFWS Species List is included in Section 3.3 at the end of this chapter.

### State Historic Preservation Office

A previous consultation with the SHPO was conducted by the Department of the Army National Guard (ARNG) to obtain SHPO's concurrence on the eligibility determinations on cultural properties, identified as former Army National Guard armory facilities, located throughout the State of California, one of which is located within the project's Area of Potential Effects. The ARNG submitted the proposed project's Final Inventory and Evaluation (FIE) to the SHPO on March 11, 2003, and on March 26, 2003, SHPO provided a letter stating that they concur with the recommendation that the post-1947 properties evaluated in the FIE are not eligible for listing on the NRHP.

Consultation with the SHPO for the proposed project was conducted by the Department to obtain SHPO's concurrence on the eligibility determinations on remaining cultural properties located within the project's

Area of Potential Effects. The Department submitted the proposed project's HPSR, ASR, and HRER to the SHPO, for which SHPO provided an emailed letter, dated October 16, 2019, stating that they concur with the recommendation that the properties located at 43486 Jackson Street and 43320 Jackson Street, in Indio, California, are not eligible for listing on the NRHP.

### Coachella Valley Association of Governments – CV Link Coordination

The County of Riverside, City of Indio, and project consultant team have been working with the Coachella Valley Association of Governments (CVAG) to ensure that the design of the I-10/Jackson Street Interchange Project is compatible with the CV Link project. The team met on April 17, 2018, to discuss the proposed Jackson and Monroe Street Interchange improvements and to acknowledge that the Jackson and Monroe Street Interchange improvements would need to be coordinated with the CV Link project team. CVAG, the City, and the County understood that the CV Link designed ramps and undercrossing may need to be adjusted as the interchange improvements are further developed. Discussion on the minimum undercrossing vertical clearance, project schedule for the proposed Jackson and Monroe Street Interchange improvements and the CV Link project, and the proposed Class II shared bike/low speed electric vehicle lane(s) for both the Jackson and Monroe Street projects occurred. Coordination meetings were held between project stakeholders (CVAG, City, and County) on April 17, 2018 and December 12, 2018 to communicate the Jackson Street widening and CV Link impacts.

## 4.2 Native American Coordination

### Native American Heritage Commission

The NAHC was contacted requesting information regarding sacred lands and a list of Native American organizations/individuals to contact. The NAHC responded on March 16, 2018, stating that the NAHC was unaware of any sacred lands in the project area, but provided a list of 31 local tribal contacts for further consultations.

### Native American Coordination

Request-for-information letters were sent to several Native American groups, as identified in coordination with the NAHC, in support of the cultural resources studies for the proposed project. More specifically, these letters were mailed to the Native American entities listed below. A detailed record of correspondence efforts with Native American groups is included in the HPSR (August 2019) and summarized below.

In accordance with Section 106 of the National Historic Preservation Act (NHPA), the Department sent initial consultation letters via the U.S. Postal Service on March 27, 2018 to the following individuals:

- Patricia Garcia-Plotkin, THPO, Agua Caliente Band of Cahuilla Indians
- Amanda Vance, Chairperson, Augustine Band of Mission Indians
- Doug Welmas, Chairperson, Cabazon Band of Mission Indians
- Joseph Ontiveros, Tribal Historic Preservation Officer, Soboba Band of Luiseño Indians
- Michael Mirelez, Cultural Resource Coordinator, Torres-Martinez Desert Cahuilla Indians
- Anthony Madrigal, Tribal Historic Preservation Officer, Twenty-Nine Palms Band of Mission Indians

These letters also served as formal notification of a proposed project as required under the California Environmental Quality Act, specifically Public Resources Code 21080.3.1 and Chapter 532 Statutes of 2014 (i.e., AB 52). The letters provided a project description and location and discussed upcoming cultural resources studies of the Project area.

Three responses to the Section 106 initiation letter and AB 52 notification letter were received:

- Katie Croft, Cultural Resource Manager with the Tribal Historic Preservation Officer of the Agua Caliente Band of Cahuilla Indians (ACBCI) sent a letter dated April 12, 2018, that stated the Project is not located within the boundaries of the ACBCI Reservation, but is within the Tribe's Traditional Use Area. The letter noted that at this time, the ACBCI is deferring consultation efforts to the Twenty-Nine Palms Band of Mission Indians and the Cabazon Band of Mission Indians and that consultation efforts with the ACBCI are concluded.
- Victoria Martin, Tribal Secretary for the Augustine Band of Cahuilla Indians sent a letter dated April 11, 2018. The letter stated that the Tribe is unaware of specific cultural resources that may be affected by the project. The Tribe also recommended that a monitor who is qualified in Native American cultural resource identification be present during the pre-construction and construction phases of the project and the Augustine Band of Mission Indians should be notified if any cultural resources were identified during the development of the project.
- Judy Stapp, Director of Cultural Affairs for the Cabazon Band of Mission Indians sent a letter dated April 5, 2018, that noted the project is located outside of the Tribe's current reservation boundaries and the Tribe has no specific archival information on the site indicated that it may be a sacred/religious or other site of Native American or traditional cultural value. The Tribe requested that they be kept informed of findings as the project moves forward.

No further response from either tribe has been received to date. A complete record of Native American consultation is included in Attachment E to the HPSR.

### Local Historical Society / Historic Preservation Group

As the party with the greatest interest in Coachella Valley history, the Coachella Valley Historical Society and Museum in Indio was mailed a letter on December 11, 2018, regarding the Project. No response from the Coachella Velley Historical Society and Museum was received.

## 4.3 Agency Coordination Documentation

Correspondence obtained from agencies, in response to the Department's request for information and input/concurrence, related to the proposed I-10/Jackson Street Interchange Project, is included on the following pages.

**TRANSPORTATION CONFORMITY WORKING GROUP**
**of the**
**SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS**

**March 26, 2019**
**Minutes**

**THE FOLLOWING MINUTES ARE A SUMMARY OF THE MEETING OF THE TRANSPORTATION CONFORMITY WORKING GROUP. A DIGITAL RECORDING OF THE ACTUAL MEETING IS AVAILABLE FOR LISTENING IN SCAG'S OFFICE.**

The Meeting of the Transportation Conformity Working Group was held at the SCAG office in Los Angeles.

**In Attendance:**

| | |
|---|---|
| Huddleston, Lori | Metro |
| Mejia, James | SBCTA |

**SCAG:**

Asuncion, John
Louie, Matthew
Luo, Rongsheng

**Via Teleconference:**

| | |
|---|---|
| Brugger, Ron | LSA |
| Burnam, Joza | ESA |
| Cacatian, Ben | VCAPCD |
| Chiou, Wayne | Caltrans, District 12 |
| Hatcher, Shannon | ARB |
| Kalandiyur, Nesamani | ARB |
| Lay, Keith | HDR |
| McFall, Valarie | TCA |
| O'Connor, Karina | EPA Region 9 |
| Pereira, Melina | Caltrans, District 11 |
| Priest, Todd | TP&A |
| Slavick, Michael | LSA |
| Sun, Lijin | SCAQMD |
| Yoon, Andrew | Caltrans District 7 |

**1.0 CALL TO ORDER AND SELF-INTRODUCTION**

James Mejia, TCWG Chair, called the meeting to order at 10:05 am.

**2.0 PUBLIC COMMENT PERIOD**

None.

**TRANSPORTATION CONFORMITY WORKING GROUP**
**of the**
**SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS**

**March 26, 2019**
**Minutes**

## 3.0 CONSENT CALENDAR

3.1. February 26, 2019 TCWG Meeting Minutes
The meeting minutes were approved.

## 4.0 INFORMATION ITEMS

4.1 Review of PM Hot Spot Interagency Review Form

1) **RIV071252**
It was determined that this was not a POAQC (Caltrans and FHWA concurrences were received after the meeting).

2) **UpdatedSR74WideningProject**
It was determined that this was not a POAQC (Caltrans and FHWA concurrences were received after the meeting).

3) **20179901**
It was determined that this was not a POAQC (Caltrans and FHWA concurrences were received after the meeting).

4.2 Updated Proposed Framework of Regional Emissions Analysis for SCAG's Connect SoCal (2020 RTP/SCS)
Rongsheng Luo, SCAG, reported the following:

- In response to TCWG comments and SCAG's confirmation of 2020 as first year of Connect SoCal, previously proposed framework had been updated to include more detailed information about proposed regional emission tests for every nonattainment and maintenance areas in SCAG region.
- Each updated emission test table includes updated analysis years, reasons for each analysis year, whether plan emission will be based on modeling or interpolation, applicable emission budgets, and source of the budgets.
- For areas where new conformity emission budgets were under U.S. EPA's review, a second table of emission test in same format had been prepared to reflect these upcoming budgets. These additional set of tables are for informational purposes only until new conformity emission budgets have been approved by U.S. EPA.
- If and when new budgets would be approved by U.S. EPA before FHWA/FTA's approval of final conformity determination for Connect SoCal, associated new table(s) would supersede preceding table(s).

**TRANSPORTATION CONFORMITY WORKING GROUP**
**of the**
**SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS**

**March 26, 2019**
**Minutes**

4.3 Draft Transportation Conformity Re-Determination for 2016 RTP/SCS and 2019 FTIP for 2015 8-Hour Ozone Standards

Rongsheng Luo, SCAG, reported the following:

- Transportation conformity was required to be re-determination for 2016 RTP/SCS and 2019 FTIP under 2015 8-hour ozone standards by August 3, 2019.
- SCAG staff had performed conformity re-determination analysis demonstrating positive conformity findings.
- The analysis was released for a 15-day public review commencing on March 13, 2019 and would conclude on March 28, 2019.
- The analysis was being presented to TCWG on March 26, 2019 for interagency consultation.
- After conclusion of public review period, all received comments would be documented, responded to, and addressed as appropriate in final report.
- Conformity re-determination was planned to be presented to SCAG's Energy and Environmental Committee for recommendation to SCAG's Regional Council for adoption on April 4, 2019.
- Upon adoption by Regional Council, conformity re-determination would be submitted to FHWA and FTA for their expedited review and approval.

4.4 RTP Update

John Asuncion, SCAG, reported that SCAG staff continued development of Connect SoCal (2020 RTP/SCS) with anticipated draft release in Fall 2019.

In response to a question, Mr. Asuncion, SCAG, stated that no additional projects would be accepted until Draft Connect SoCal is released.

4.5 FTIP Update

John Asuncion, SCAG, reported the following:

- County projects submittal for next 2019 FTIP amendment would be due to SCAG on April 9, 2019.
- 2021 FTIP Guidelines were under development.
- County projects submittal for 2021 FTIP would be due to SCAG in January 2020.

4.6 EPA Update

Karina O'Connor, EPA Region 9, reported that EPA staff was still working on previously reported letters regarding South Coast $NO_2$ conformity and OCTA TCM substitution.

**TRANSPORTATION CONFORMITY WORKING GROUP**
**of the**
**SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS**

**March 26, 2019**
**Minutes**

4.7 ARB Update

Nesamani Kalandiyur, ARB, reported the following:

- ARB staff continued review of OCTA TCM substitution and would send final review letter to U.S. EPA and SCAG when ready.
- EMFAC2017 was still under U.S. EPA review.
- Final Draft SCS Program Evaluation Guidelines were anticipated to be released shortly and a workshop would be held on April 3, 2019.

4.8 Air Districts Update

Lijin Sun, SCAQMD, reported the following:

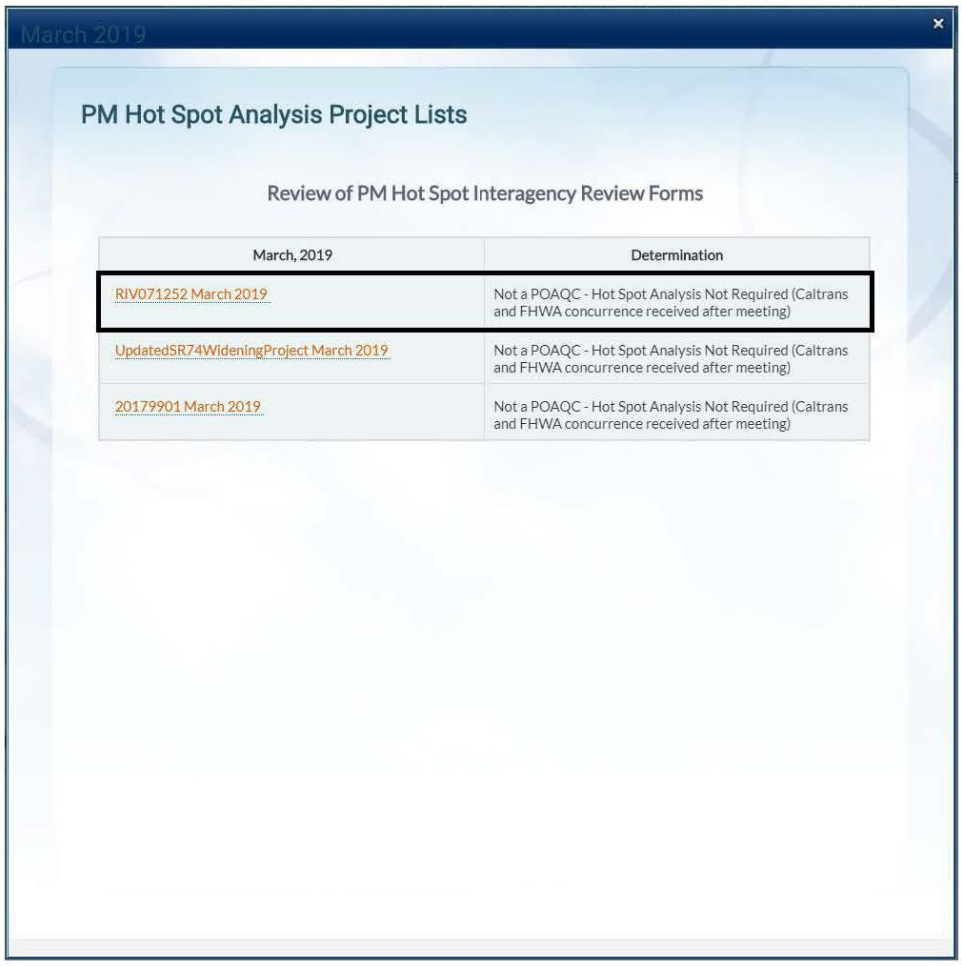
- SCAQMD staff held a working group meeting for Warehouse Indirect Source Rule on March 22, 2019.
- SCAQMD staff would hold a mobile source measure working group meeting regarding new development and re-development projects on March 29, 2019 at SCAQMD Headquarters in Diamond Bar.

## 5.0 INFORMATION SHARING

Karina O'Connor, EPA Region 9, announced that EPA headquarters were considering a hot spot training class in Ann Arbor, Michigan and requested an email of interest from those who are interested in hot spot training class either in Michigan or in California.

## 6.0 ADJOURNMENT

The meeting was adjourned at 10:46 am. The next Transportation Conformity Working Group meeting will be held on Tuesday, April 23, 2019, at the SCAG main office in downtown Los Angeles.


March 2019
PM Hot Spot Analysis Project Lists
Review of PM Hot Spot Interagency Review Forms
March, 2019
Determination
RIV071252 March 2019
Not a POAQC - Hot Spot Analysis Not Required (Caltrans and FHWA concurrence received after meeting)
UpdatedSR74WideningProject March 2019
Not a POAQC - Hot Spot Analysis Not Required (Caltrans and FHWA concurrence received after meeting)
20179901 March 2019
Not a POAQC - Hot Spot Analysis Not Required (Caltrans and FHWA concurrence received after meeting)

# United States Department of the Interior

FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901
http://www.fws.gov/carlsbad/

In Reply Refer To:
Consultation Code: 08ECAR00-2019-SLI-0202
Event Code: 08ECAR00-2020-E-03351
Project Name: I-10/Jackson Street Interchange

August 13, 2020

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated critical habitat, and candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

# Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Carlsbad Fish And Wildlife Office**
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
(760) 431-9440

## Project Summary

Consultation Code: 08ECAR00-2019-SLI-0202

Event Code: 08ECAR00-2020-E-03351

Project Name: I-10/Jackson Street Interchange

Project Type: TRANSPORTATION

Project Description: The proposed project is to reconstruct and widen Jackson Street at I-10 in an effort to improve traffic flow. The two build alternatives would reconstruct Jackson Street at the interchange which includes the ramps, the overcrossing, and the bridge over the Coachella Valley Stormwater Channel (Whitewater River).

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/33.736724088449826N116.22061022459624W




Counties: Riverside, CA

## Endangered Species Act Species

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

### Birds

| NAME | STATUS |
|---|---|
| Least Bell's Vireo *Vireo bellii pusillus*<br>There is **final** critical habitat for this species. Your location is outside the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/5945 | Endangered |
| Southwestern Willow Flycatcher *Empidonax traillii extimus*<br>There is **final** critical habitat for this species. Your location is outside the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/6749 | Endangered |
| Yuma Ridgways (clapper) Rail *Rallus obsoletus [=longirostris] yumanensis*<br>No critical habitat has been designated for this species.<br>Species profile: https://ecos.fws.gov/ecp/species/3505 | Endangered |

## Reptiles

| NAME | STATUS |
|---|---|
| Coachella Valley Fringe-toed Lizard *Uma inornata*<br>There is **final** critical habitat for this species. Your location is outside the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/2069 | Threatened |
| Desert Tortoise *Gopherus agassizii*<br>Population: Wherever found, except AZ south and east of Colorado R., and Mexico<br>There is **final** critical habitat for this species. Your location is outside the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/4481 | Threatened |

## Flowering Plants

| NAME | STATUS |
|---|---|
| Coachella Valley Milk-vetch *Astragalus lentiginosus var. coachellae*<br>There is **final** critical habitat for this species. Your location is outside the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/7426 | Endangered |

## Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

HNTB Michael Baker INTERNATIONAL

# MEETING MINUTES

| | | |
|---|---|---|
| **MEETING:** | CVAG / CV Link Focus Meeting<br>I-10/Jackson and Monroe St IC PA / ED | Caltrans EA No.:<br>08-0K730 (Monroe)<br>08-0M910 (Jackson) |
| **DATE:** | Tuesday, April 17, 2018 | |
| **TIME:** | 1:00 p.m. – 2:30 p.m. | |
| **LOCATION:** | CVAG Conference Room<br>73710 Fred Waring Drive Ste #200,<br>Palm Desert, CA 92260 | Prepared by: Jerusalem Verano<br>Approved by: Rebecca Young |

HNTB provided the meeting agenda.

1) **Introductions**

Andy Cheah invited the meeting attendees to introduce themselves. Refer to the sign in sheet for attendees.

2) **Background / Status of Current Work**

Andy presented the current project status and background NEV design information.

3) **Commuter Connector / Shared Facilities**

**Passing vs. No Passing - Roadway Shoulder Width Dimension:**

CVAG, the City, and the County came to a consensus to provide a Class II shared bike / NEV lane(s) for both the Jackson and Monroe Street projects. The Class II facility is to be a minimum 10-feet wide (0 to 3-foot buffer and a 7' shared NEV / bicycle lane). A 10-foot width will allow for passing of broken or stalled NEV's within the shoulder area.

**Limits of Full Width Shoulder / Join Locations:**

CVAG, the City, and the County came to a consensus to limit the Class II shared bike / NEV lane to within the interchange improvements, up to the nearest driveway north of the interchange for both projects. For Jackson, the southern limit would be the CV Link path because the City's DRAFT General Plan Mobility Element does not identify NEV uses south of CV Link. For Monroe, the southern limits will be the limits of proposed ultimate roadway width

4) **CV Link Coordination**

Andy informed the attendees the Jackson and Monroe Street Interchange improvements would be coordinated with the CV Link project team. CVAG, the City, and the County understood that the CV Link designed ramps and undercrossing may need to be adjusted as the interchange improvements

I-10 Jackson and Monroe PA / ED April 2018 – CV Link Focus Meeting Page 1 of 2

are further developed.

CVAG, the City, and the County agreed the minimum undercrossing vertical clearance should be a 10-foot minimum.

5) **Project Schedule**

HNTB distributed the project schedule for the Jackson Street IC project. The PA / ED phase for both the Monroe and Jackson projects are scheduled to be completed at the end of 2019. Depending on funding availability, the projects are scheduled for an opening year of 2023.

Martin Magana stated the CV Link project is anticipated to be constructed this year.

6) **Other Items**

**City of Indio General Plan Update:**

Michael Baker noted proposed bike and NEV route discrepancies within the City's DRAFT General Plan Update and CV Link Master Plan and asked which document governed. CVAG, the City, and the County agreed the following documents will govern according to the order identified below,

1. City General Plan (and future General Plan Update)
2. CV Link Master Plan (January 2016)
3. Other CV Link and CVAG Guidance

Jason Pack noted the City is currently updating its General Plan and is scheduled to adopt the updated document around fall of this year. The General Plan Update proposes a Class IV bike / cycle track through the Monroe Street interchange project. In view of this meeting, Eric Weck agreed to review the City's proposed General Plan Update "bike route map" to possibly revise the Monroe Street bike route to a Class II facility from a Class IV facility prior to the adoption of the General Plan Update.

**Action Item: Eric Weck will review the City's proposed General Plan Update "bike route map" to possibly revise the Monroe Street bike route to a Class II facility from a Class IV facility prior to the adoption of the General Plan Update.**

**DISCLAIMER:**

**The following items presented summarize the substantive items discussed or issues resolved at the above meeting to the best of the writer's memory. The information presented herein is for specific direction from the County, City, Agency, or Client. All attendees are requested to review these minutes and respond in writing within five (5) calendar days from receipt. If no responses or comments are received, these minutes will be accepted as a definitive version.**

**MEETING AGENDA**

**Project: I-10 Jackson Interchange – PA&ED (EA 08-0M910)**

Meeting For: Focus Meeting (CV-Link)

Location: CVAG Conference Room

Date/Time: April 17, 2018 1:00 PM

**TOPICS**

| | |
|---|---|
| **1.** | **Introduction** |
| **2.** | **Background / Status of Current Work**<br>• Environmental Phase<br>• Preliminary Design |
| **3.** | **Commuter Connector / Shared Facilities:**<br>• Width<br>  ○ Consider using Class II – Shared Bike/LSEV Facilities:<br>  ▪ 8-foot Caltrans Standard Shoulder<br>  ▪ 9-foot PSR-PDS<br>  ▪ 10-foot shoulder allows passing<br>• Limits<br>  ○ North / South limits along Jackson<br>• Rough Order of Magnitude Estimate (ROM estimate) |
| **4.** | **Traffic Study**<br>• Bike/LSEV/Pedestrian Volumes<br>• Study Area/Limits on Jackson |
| **5.** | **Access Ramps at CVSC Bridge**<br>• Proposed bridge widening<br>  ○ Current CV-Link Access Ramps to be Revised<br>  ○ Coordination with CVAG Design Team |
| **6.** | **Project Schedule**<br>• Impact to schedule / scope |
| **7.** | **Other Items** |

**HNTB**

TranSystems
EXPERIENCE | Transportation

6 Hutton Centre Drive, Suite 1250, Santa Ana, CA 92707
Phone: 714-662-3020
Fax: 714-242-9642
www.transystems.com

# MEETING MINUTES

**Riverside County Transportation Department**
**I-10/Jackson Street Interchange**
County Project No. C7-0049
Caltrans EA 08-0M910, Project Number: 0800020208
**CV-Link Coordination Meeting No.2**
Tuesday, December 11, 2018 at 11:00 am
Coachella Valley Association of Governments Office –Conference Room
(Also via Go-To Meeting at 1-866-951-1151, Code 188-498-586)

| | | | |
|---|---|---|---|
| Meeting Date: | Tuesday, Dec 11, 2018 at 1:30 pm | Location: | CVAG, Conference Room also via Go-To Meeting |
| Attachments: | Agenda<br>Attendees Sign-in Sheet | Recorded by: | Andy Cheah |
| Distribution: | Attendees List | | |

*The purpose of this meeting was to discuss strategy and approach to prepare the Project Report (PR) and Environmental Document (ED).*

**ACTION ITEMS:**

| No. | Actions | Duty | Status |
|---|---|---|---|
| 2.1 | Jerusalem will share Monroe Street Widening CV Link re-alignment plan / exhibit with CVAG. | MBI (Jerusalem) | New |
| 2.2 | Andy will provide the latest Jackson Street Widening CV Link proposed concept to CVAG. | TranSystems (A. Cheah) | New |

**DISCUSSION ITEMS:**

| No. | Discussions | Action Items |
|---|---|---|
| 1 | **Introductions**<br>TranSystems (Andy Cheah) opened the meeting. The attendees introduced themselves with their roles and responsibilities. | |
| 2 | **Coordination Objectives:**<br>a. Review current CV-link 95% design<br>CVAG (Mike McDonagh) stated that the Phase 1 of CV-Link within Indio will include Monroe Street, and termination at the North Jackson Street Park.<br>Mike mentioned that draft 100% plans are available now. | |

SR-86/Avenue 50 New Interchange PDT Meeting Minutes No. 16
May 30, 2018
Page 2 of 3

| | | |
|---|---|---|
| | PROJECT OVERVIEW:<br>**I-10/Monroe:**<br>Michael Baker International (MBI) (Jerusalem Verano) briefly discussed the Monroe Street Widening CV Link re-alignment plan / concept, but noted that the current layout is preliminary and subject to change. CV Link modifications include:<br>• Realign CV Link undercrossing to accommodate a 10' vertical clearance, 1.5: 1 slope paving, Monroe Street widening.<br>• Realign CV Link eastside access ramp to accommodate the Monroe Street Widening. Will impact the "AP-5" architectural sitting area east of Monroe Street.<br>• Maintain original CV Link design intent and inter-agency decisions made as part of CV Link project, i.e. railing, path dimensions, channel access, maintain and join existing channel lining.<br>• APN: 610-093-037 is vacant and impacted by the Monroe Street widening of CV Link. CVAG, the City, and the County verified that there are no current plans to develop said parcel. Jerusalem noted the eastside CV Link access ramp alignment shown is subject to change and will be refined in final design.<br>CVAG will coordinate with Alta to possibly reduce / change the pavement type through the Monroe Street CV Link undercrossing and eastside access ramp. John Ashlock noted that this decision is up to CVAG as the Monroe and Jackson projects are in a preliminary planning phase and the current design is not final and is subject to change.<br><br>Jerusalem will share Monroe Street Widening CV Link re-alignment plan / exhibit with CVAG.<br><br>CVAG will coordinate with Alta to possibly reduce / change the pavement type through the Monroe Street CV Link undercrossing and eastside access ramp.<br><br>County (John Ashlock) noted that this decision is up to CVAG as the Monroe and Jackson projects are in a preliminary planning phase and the current design is not final and is subject to change. | 2.1 |
| | **I-10/Jackson:**<br>HNTB (David Speirs) briefly discussed the Jackson Street Widening project. The project in PA/ED phase. The project is evaluating to reconstruct the existing 5-span structure to a 3-span structure.<br><br>Andy shared the preliminary proposed profile exhibit based on the latest 3 s-span structure concept with 9-foot girder depth. With the increased of girder depth, 2% cross slope for wider structure, and Jackson realignment, the CV-link profile will need to be lower (approximately 4.09 feet on the westside to 7.31 on the eastside feet) as shown in attached exhibit. The promising news is the bottom of CV-link ramp still higher than the existing 100-year water surface elevation. No flood hazard, but noted that it is pending on final HEC-RAS analysis of the proposed 3-span structure, and final roadway and bridge profile.<br><br>Andy will provide the latest Jackson Street CV Link proposed profile concept to CVAG.<br><br>As noted in the CV-link master plan, Jackson Street is identified as a commuter connector. The team agreed to include the direct access ramps from the Jackson Street for the | 2.2 |

Construction Management Services • Highway and Bridge Design Services • Project Controls Services

| | | |
|---|---|---|
| | environmental study footprint. However, the pavement structure section type and construction costs can be worked out between the agencies will work in the future. | |
| | Operations and Maintenance of CV-Link<br>CVAG will own and operate CV Link. On lands owned by CVWD, CVAG will/has executed an inter-agency agreement. On private property CV Link has / will negotiate easements with property owners. | |
| 3 | **Schedule**<br>CVAG (Martin Magana) stated that Phase is tentatively anticipated to advertise for bid in spring 2019, construction to start in summer or fall 2019.<br>Phase 2 of CV-Link will include Jackson Street portion. It is anticipate to start before completion of Phase 2, tentatively targeting 2020. | |
| 4 | **Open Discussions / Other Items**<br>None. | |

**DECISION LOG:**

| No. | Decisions |
|---|---|
| | |

*All attendees should review and comment on the above meeting summary content. The attendees' comments shall be received within seven (7) calendar days from the distribution date shown hereon; otherwise this document is accepted as the "Meeting Minutes of Record".*

| | |
|---|---|
| **DISTRIBUTION DATE:** | June 4, 2018 |

Attachments: Meeting Agenda
Meeting Attendees Sign-in Sheet

cc: Project File

# CITY OF INDIO
## Agenda
## City Council

150 Civic Center Mall
Indio, California

**July 17, 2019**

**MISSION STATEMENT**

*THE CITY OF INDIO'S PUBLIC SERVANTS PROVIDE OUTSTANDING MUNICIPAL SERVICES TO ENHANCE THE QUALITY OF LIFE FOR OUR RESIDENTS, VISITORS AND THE BUSINESS COMMUNITY*

## JOINT CLOSED SESSION
## CITY COUNCIL / SUCCESSOR AGENCY
## 3:00 p.m.

**1. CALL TO ORDER AND ROLL CALL**

Mayor/Chairperson Lupe Ramos Amith
Mayor Pro Tem/Vice Chairperson Glenn Miller
Councilmember/Director Elaine Holmes
Councilmember/Director Waymond Fermon
Councilmember/Director Oscar Ortiz

**2. PUBLIC COMMENT**

*This is the time set aside for public comment. If you wish to speak, please complete a "request to speak" form and limit your comments to three minutes (forms are located in the lobby of the Council Chamber). If the total time of comments extend beyond 30 minutes, the Mayor may defer further public comments for items Not on the Agenda until the end of the Agenda.*

**3. ADJOURN TO CLOSED SESSION to consider:**

a. Conference with Real Property Negotiator (City Council), Government Code Section 54956.8; APN 610-070-025 and 610-070-002, City of Indio Negotiator: Mark Scott, City Manager; Negotiating Parties: Coachella Valley Mosquito and Vector Control District; Under Negotiation: Price and Terms of Payment.

b. Conference with Real Property Negotiators (City Council and Successor Agency), Government Code Section 54956.8; City of Indio and Successor Agency properties with APN's 611-164-014, 611-172-001, 611-172-003, 611-172- 007, 611-172-017, 611-172-018, 611-172-019, 611-172-020, 611-172-022, 611-172-023, 611- 172-025, 611-172-026, 611-172-027, 611-173-002, 611-173-006, 611-173-008, 611-173-012, 611-173-013, 611-173-015, 611-173-016, 611-173-017, 611-173-018, 611-173-019, 611-173- 020, 611-173-021, 611-212-041, 611-164-011, 611-164-013, 611-164-015, 611-153-001, 611- 153-004, 611-153-007, 611-153-009, 611-153-010, 611-153-011; City of Indio and City of Indio Successor Agency Negotiator: Mark Scott, City

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Manager/Executive Director; Negotiating Party: PSDG; Under Negotiation: Price and Terms of Payment

c. Conference with Real Property Negotiators (City Council and Successor Agency), pursuant to California Government Code Section 54956.8; City of Indio and Successor Agency properties with APN's 611-164-011, 013, 014, 015; APN 611-172-025, 026, 027, 022, 023, 020, 017, 018, 019; City of Indio and City of Indio Successor Agency Negotiator: Mark Scott, City Manager/Executive Director; Negotiating Parties: Coachella Valley Development Partners. Negotiation: Price and Terms of Payment.

d. Conference with Legal Counsel, Existing Litigation, Government Code Section 54956.9(d)(1); Henricus Peeters, et al. v. City of Indio, Riverside County Superior Court Case No. PSC 1704172

e. Conference with Legal Counsel, Existing Litigation, Government Code Section 54956.9(d)(1); Comite Latino v. City of Indio, Riverside County Superior Court Case No. PSC 1904258

f. Conference with Legal Counsel, Existing Litigation, Government Code Section 54956.9(d)(1); City of Indio v. City of Coachella, et. al., Riverside County Superior Court Case No. PSC 1804374

g. Public Employee Performance Evaluation, Government Code Section 54957; Public Employee: City Manager

h. Conference with Labor Negotiator, Government Code Section 54957.6; City Negotiator: Roxanne Diaz, City Attorney and Mayor Amith; Unrepresented Employee: City Manager

**REGULAR JOINT MEETING**
**CITY COUNCIL / INDIO WATER AUTHORITY**
**5:00 p.m.**

**1. CALL TO ORDER AND ROLL CALL**

Mayor/President Lupe Ramos Amith
Mayor Pro Tem/Vice President Glenn Miller
Councilmember/Commissioner Elaine Holmes
Councilmember/Commissioner Waymond Fermon
Councilmember/Commissioner Oscar Ortiz

**2. INVOCATION**

*The City Council does not endorse the content of the invocation and does not endorse the invocational speaker's particular faith, belief and/or religious denomination. The City Council does not engage in any prior inquiry, review of, or involvement in, the content of the invocation, except to request the speaker to refrain from using the invocation as an opportunity to attempt to convert others to a particular faith or to disparage any faith or belief and for the speaker to face the City Council. The City Council has an established neutral policy for selecting and scheduling invocational speakers. The City Clerk will make the Council's policy on invocations available upon request for public inspection and copying.*

**3. PLEDGE OF ALLEGIANCE**

**4. REPORT ON CLOSED SESSION**

**5. REPORT ON CITY COUNCIL EXTERNAL/INTERNAL BOARDS, COMMISSIONS AND COMMITTEE MEETINGS AND REPORT ON MEETINGS ATTENDED PER GOVERNMENT CODE SECTION 53232.3(d)**

**6. PRESENTATIONS**

a. Certificate of Recognition to Radio Remanente

**7. APPOINTMENTS**

a. Designation of Voting Delegates and up to Two Alternates to the League of California Cities Annual Conference – October 16 – 18, 2019, in Long Beach, CA

**8. CITY MANAGER REPORTS AND INFORMATION**

a. Loan Program for Downtown Restaurant Expansion
b. Acquisition of Public Art for Dr. Carreon Park
c. Update — Study of Future Electrical Power Service Alternatives
d. Legislative Update — SB 5 (State Funding for Affordable and Homeless Housing)

**9. PUBLIC COMMENT FOR ITEMS NOT ON THE AGENDA**

*This is the time set aside for public comment. If you wish to speak, please complete a "request to speak" form and limit your comments to three minutes (forms are located in the lobby of the Council Chamber). If the total time of comments extend beyond 30 minutes, the Mayor may defer further public comments for items Not on the Agenda until the end of the Agenda.*

**10. CONSENT CALENDAR**

*Note: Consent calendar items are considered to be routine in nature and will be approved by one motion. Reading of text of Ordinances is waived and Ordinances are adopted as second reading, by title only. Public requests to discuss consent calendar items must be filed with the City Clerk before the consent calendar is called. This is the time for any member of the public wishing to speak on a consent calendar item to do so. Any member of the public wishing to speak shall have a total of three minutes to address any and all items on which he/she wishes to speak. Unless a consent calendar item is pulled for discussion by a council member, there will be no further opportunity to discuss the matter. If a consent calendar item is pulled for Council discussion and a member of the public then wishes to speak, he/she shall limit comments to matters raised during the Council discussion.*

a. Minutes for the Regular City Council meeting held June 19, 2019 *(Sabdi Sanchez, City Clerk Administrator) Recommendation: Approve*

b. Resolution approving the City's participation in the Public Agency Retirement Services Post-Employment Benefits Trust to prefund the City's Post-Employment Pension Benefits and authorizes the City Manager to execute the agreement and all related documents to implement the program *(Rob Rockwell, Assistant City Manager and Finance Director) Recommendation: Approve*

c. City Warrants *(Rob Rockwell, Assistant City Manager and Finance Director) Recommendation: Receive/File*

d. IWA Warrants *(Trish Rhay, IWA General Manager) Recommendation: Receive/File*

e. Purchase of cellular data and voice services from Verizon Wireless in the yearly amount of $110,000 for three years *(Ian Cozens, IT Director) Recommendation: Approve*

f. Fuel purchase in the amount of $340,000 from SoCo Group Inc., for the City's fuel needs *(Timothy T. Wassil, P.E., Public Works Director) Recommendation: Approve*

g. A purchase from Fiesta Ford in the amount of $479,595.30 for ten (10) new 2020 Ford Explorers *(Timothy T. Wassil, P.E., Public Works Director) Recommendation: Approve*

h. Approval of Purchase and Sale Agreement and Joint Escrow Instructions between the City of Indio and Frontier California, Inc., for the purchase in fee of an approximate 159 square foot portion of the real property identified as APNs 611-310-018, 611-310-019, and 611-330-013 for public street purposes and all uses necessary or convenient thereto, and an approximate 133 square foot temporary construction easement for a term of four years to facilitate the construction of the Avenue 44 Low-Flow Crossing Replacement Project (BR1101) and finding that the purchase is consistent with the General Plan *(Timothy T. Wassil, P.E., Public Works Director) Recommendation: Approve*

i. Agreement for contractual services between the City of Indio and Riverside University Health System – Behavioral Health (RUHS-BH), for crisis triage behavioral health services in the amount of $300,000 over a three year term *(Michael R. Washburn, Chief of Police) Recommendation: Approve*

j. Supplier agreement with Ferguson Enterprises, LLC dba Ferguson Waterworks, for as-needed water meters and meter parts for Fiscal Year 2019-20 in the amount not-to-exceed $250,000 *(Trish Rhay, IWA General Manager) Recommendation: Approve* **(Indio Water Authority)**

k. Purchase of as needed waterworks parts and supplies from Ferguson Waterworks, Core & Main, Dangelo Company, United Waterworks, Inc., and Western Water Works for Fiscal Year 2019-20 in an amount not-to-exceed $360,000 *(Trish Rhay, IWA General Manager) Recommendation: Approve* **(Indio Water Authority)**

l. Acceptance of the Bill of Sale of Water System Facilities from Polo Estates Ventures, LLC for Tract No. 37396-1 at Trilogy at the Polo Club *(Trish Rhay, IWA General Manager) Recommendation: Authorize & Accept* **(Indio Water Authority)**

m. Approve the accounts receivable write-offs in the amount of $148,241.39 as of June 30, 2019 pursuant to Administrative Policy No. IWA-750-01-004-12 *(Trish Rhay, IWA General Manager) Recommendation: Approve* **(Indio Water Authority)**

**11. ADMINISTRATIVE ITEMS**

a. Identification and selection of Alternative Two (Tight Diamond Interchange Layout) as the locally preferred alternative for the Jackson Street Interchange and Monroe Street Interchanges *(Timothy T. Wassil, P.E., Public Works Director) Recommendation: Approve*

b. Amendment No. 1 to the Employment Agreement between the City and City Manager Mark Scott *(Roxanne Diaz, City Attorney) Recommendation: Approve*

**12. PUBLIC HEARINGS**

a. Public hearing to adopt a Resolution to increase solid waste rates and a Resolution providing for the collection of Solid Waste Charges on the tax roll for Fiscal Year 2019-2020 *(Timothy T. Wassil, P.E., Public Works Director) Recommendation: Approve*

b. Public hearing to adopt Resolution certifying the Final Environmental Impact Report, adopting CEQA findings and mitigation monitoring and reporting program and adopting a statement of overriding consideration for the City of Indio 2040 General Plan and Climate Action Plan; Resolution adopting the City of Indio 2040 General Plan; and Resolution adopting the Climate Action Plan *(Kevin Snyder, AIEP, Community Development Director) Recommendation: Approve*

**13. PUBLIC COMMENTS CONTINUED, IF NEEDED, FOR ITEMS NOT ON THE AGENDA**

**14. ADJOURN**

***Next Council Meeting:*** *August 21, 2019*

*Agenda packets are available on the city's website at www.indio.org and at the public counter in City Hall at 100 Civic Center Mall, Indio, California. Materials related to an item on this Agenda submitted to the City Council after distribution of the agenda packet are available for public inspection at the front counter of the lobby of the City Hall Administration Building at 100 Civic Center Mall, Indio, during normal City business hours and during the meeting.*

PUBLIC NOTICE

*The Indio City Council Chamber is accessible to person(s) with disabilities. If special equipment is needed, for the hearing impaired, please call the City Clerk's office. Persons with disabilities can receive this agenda in an alternative format and should call the City Clerk's office at 391-4007. Notification 48 hours prior to a meeting will enable the City to make reasonable arrangements to ensure accessibility to the meeting (28 CFR 35.102.35.104 ADA Title 11).*

DECLARATION OF POSTING

*I, Sabdi Sanchez, City Clerk Administrator of the City of Indio, California, do hereby declare that the foregoing agenda was posted on July 12, 2019, at least seventy-two (72) hours prior to the meeting per Government Code 54954.2, at the following locations:*

*City of Indio Council Chamber, 150 Civic Center Mall, Indio, CA 92201*
*City of Indio website www.indio.org*

Sabdi Sanchez
*SABDI SANCHEZ, CMC*
*CITY CLERK ADMINISTRATOR*

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# Chapter 5 List of Preparers

The following Department staff and consultants contributed to the preparation of this IS/EA.

### *California Department of Transportation*

| | |
|---|---|
| Renetta Cloud | Branch Chief/Senior Environmental Planner |
| Adrian Castillo | Associate Environmental Planner/Generalist |
| Liana Griebsch | Associate Environmental Planner/Generalist |
| Ashley Bowman | Principal Investigator, Prehistoric Archaeology/Cultural Studies |
| Andrew Walters | Senior Environmental Planner/Cultural Studies |
| Craig Wentworth | Senior Environmental Planner/Biological Studies |
| Chun-Sheng Wang | Associate Environmental Planner/Biological Studies |
| Luz A Quinnell | Associate Environmental Planner/Biological Studies |
| Adam Compton | Senior Environmental Planner/Biological Studies/Permits |
| Olufemi Odufalu, P.E. | Office Chief/Environmental Engineering |
| Daniel To | Transportation Engineer/Noise |
| Bahram Karimi | Associate Environmental Planner/Paleontological Studies |
| Donald Cheng | Transportation Engineer/Hazardous Waste |
| Raftar Sharia, P.E. | Professional Engineer/Hydraulics |
| Christopher Gonzalez | Transportation Engineer/Air Quality |
| Sylvia Rivas | Landscape Architect/Visual Resources |
| Alan Nakano | Transportation Engineer/Stormwater |
| Karen Adame | Transportation Engineer/Traffic |
| Francisco Codling | Transportation Engineer/Project Engineer |
| Martha Santana | Project Manager |

### *City of Indio*

| | |
|---|---|
| Eric Weck | Principal Engineer |

### *County of Riverside Transportation Department*

| | |
|---|---|
| John Ashlock | Project Manager |
| Jan Bulinski | Senior Transportation Planner |

### *Consultants*

| | |
|---|---|
| Ryan Todaro | Project Manager, ESA |
| Monica Corpuz | Deputy Project Manager, ESA |
| James Santos | Senior Managing Associate, ESA |
| Anna Millar | Environmental Planner, ESA |
| Joza Burnam | Managing Associate, ESA |
| Olivia Chan | Managing Associate, ESA |
| Sonya Vargas | Senior Biologist, ESA |
| Tim Witwer | Senior Associate, ESA |
| Stephan Geissler | Senior GIS Coordinator, ESA |
| Jaclyn Anderson | Senior GIS Analyst, ESA |
| Aaron Guzman | Senior Publications Specialist, ESA |
| Denise Kaneshiro | Senior Graphic Designer, ESA |
| Megan Rhode | Technical Editor, ESA |
| Chao Chen | Project Manager, HNTB |
| Kara Hall | EIT Senior Transportation Engineer, Fehr & Peers |

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# Chapter 6 Distribution List

A compact disc copy of the Initial Study with Proposed Mitigated Negative Declaration/ Environmental Assessment (IS/EA) and/or a Notice of Availability was distributed to federal, state, regional, and local agencies, elected officials, interested groups, organizations and individuals, and utilities and service providers in the project area. In addition, all property owners and residents/occupants located within 500 feet of the proposed project were provided with a Notice of Availability.

| **Agencies** | | |
|---|---|---|
| Indio Water Authority<br>83101 Avenue 45,<br>Indio, California 92201 | Desert Sands Unified School District<br>Scott Bailey, Superintendent<br>47950 Dune Palms Road<br>La Quinta, CA 92253 | Riverside County Planning Dept.<br>Director<br>Carolyn Syms Luna<br>4080 Lemon Street, 9th Floor<br>Riverside, CA 92501 |
| City of Indio Public Works Department<br>Timothy Wassil, Director<br>100 Civic Center Mall<br>Indio, CA 92201 | City of Indio<br>City Manager<br>Mark Scott<br>100 Civic Center Mall<br>Indio, CA 92201 | City of Indio<br>Director of Development Services<br>100 Civic Center Mall<br>Indio, CA 92201 |
| City of Indio<br>Manager of Community Services<br>Jim Curtis<br>100 Civic Center Mall<br>Indio, CA 92201 | City of Indio Fire Administration<br>Headquarters<br>Jorge Rodriguez, Division Chief<br>46-990 Jackson Street.<br>Indio, CA 92201 | City of Indio Police Department<br>Mike Washburn, Chief of Police<br>46800 Jackson Street, Indio, CA 92201 |
| Riverside County Transportation Department<br>Attn: Russell Williams<br>Riverside County Administrative Center<br>4080 Lemon Street<br>Riverside, CA 92501 | Coachella Valley Assoc. of Governments<br>Katie Barrows<br><br>Director of Environmental Resources<br>73-710 Fred Waring Drive, Suite. 200<br>Palm Desert, CA 92260 | City of Indio Chamber of Commerce and Visitors Center<br>82-921 Indio Boulevard,<br>Indio, CA 92201 |
| Coachella Valley Mosquito and Vector Control District<br>General Manager<br>Jeremy Wittie, MS<br>43-420 Trader Place<br>Indio, CA 92210 | Coachella Valley Water District<br>Division 4 Board of Director<br>Peter Nelson<br>51501 Tyler Street<br>Coachella, CA 92236 | Greater Coachella Valley Chamber of Commerce<br>Indio Office<br>82-921 Indio Boulevard<br>Indio, CA 92201 |
| Southern California<br>Assoc. of Governments<br>Huasha Liu, Planning & Programs – Land Use and Env't Plng<br>818 W. 7th Street, 12th Floor<br>Los Angeles, CA 90017 | Coachella Valley Water District<br>Steve Bigley, Director of Environmental Services<br>P.O. Box 1058<br>Coachella, CA 92236 | Coachella Valley Recreation & Park District<br>45-305 Oasis Street<br>Indio, CA 92201 |
| So. CA Assoc. of Governments<br>Riverside County Regional Office<br>Attn: Cheryl Leising<br>3403 10th Street,<br>Suite 805<br>Riverside, CA 92501 | SunLine Transit Agency<br>Lauren Skiver, General Manager<br>32-505 Harry Oliver Trail<br>Thousand Palms, CA 92276 | Native American Heritage Commission<br>Gayle Totton, Associate Governmental Project Analyst<br>1550 Harbor Boulevard, Suite 100<br>West Sacramento, CA 95691 |
| U.S. Fish & Wildlife Service<br>Palm Springs Fish and Wildlife Office<br>Attn: Ken Corey<br>777 E. Tahquitz Canyon Way<br>Suite 208<br>Palm Springs, California 92262 | California Department of Transportation<br>Division of Environmental Analysis<br>Attn: Dan McKell<br>1120 "N" Street<br>Sacramento, CA 95814 | CA Air Resources Board<br>Transportation Projects<br>1001 "I" Street<br>Sacramento, CA 95814 |

| | | |
|---|---|---|
| Department of Water Resources<br>Reclamation Board<br>1416 Ninth Street<br>Room 1601<br>Sacramento, CA 95814 | California RWQCB / Colorado River Basin Region 7<br>Kai Dunn<br>Senior Water Resources Control Engineer<br>73-720 Fred Waring Drive<br>Palm Desert, CA 92260 | California Highway Patrol<br>Enforcement & Planning Division<br>Special Programs Section<br>Transportation Planning Unit<br>601 N. 7th Street<br>Sacramento, CA 95811 |
| California Dept. of Water Resources<br>Division of Environmental Services<br>Dean Messer, Division Chief<br>3500 Industrial Blvd.<br>West Sacramento, CA 95691 | SCAQMD<br>Planning, Energy & Environ. Section<br>Attn: Carol Gomez<br>Transportation Manager<br>1865 E. Copley Drive<br>Diamond Bar, CA 91765 | County of Riverside Transportation Department<br>Juan C. Perez, Director of Transportation & Land Management<br>4080 Lemon Street<br>Riverside, CA 92501 |
| CA Dept. of Fish & Wildlife<br>Leslie McNair, Acting Regional Manager<br>3602 Inland Empire Boulevard.<br>Suite C-220<br>Ontario, CA 91764 | California NRCS State Office<br>Carlos Suarez, State Conservationist<br>Richard E. Lyng<br>USDA Service Center<br>430 G Street #4164<br>Davis, CA 95616 | Riverside County Fire Department<br>Office of the Fire Marshal<br>Palm Desert Office<br>77-93 Las Montanas Road, #201<br>Palm Desert, CA 92211 |
| City of Coachella Fire Dept.<br>Bonifacio De La Cruz<br>Battalion Chief<br>1377 Sixth Street<br>Coachella, CA 92236 | U.S. Army Corps of Engineers<br>Los Angeles District<br>Transportation & Special Projects<br>Environmental Protection<br>Veronica Chan<br>915 Wilshire Boulevard.<br>Los Angeles, CA 90015 | Coachella Valley Conservation Commission<br>73-710 Fred Waring Drive, Suite 200<br>Palm Desert, California 92260 |
| Mr. Joseph Tavaglione, Commissioner<br>California Transportation Commission<br>3405 Arlington Avenue<br>Riverside, CA 92506 | Cal Fire – Riverside Unit Riverside County Fire Department<br>Jody Gray, Division Chief, Strategic Planning Division<br>210 West San Jacinto Avenue<br>Perris, CA 92570 | California Department of Conservation<br>Environmental Review<br>801 K Street, MS 24-01<br>Sacramento, CA 95814 |
| Department of Toxic Substances Control<br>Johnson P. Abraham, Project Manager<br>5796 Corporate Avenue<br>Cypress, CA 90630 | Coachella Valley Association of Governments<br>73-710 Fred Waring Drive<br>Palm Desert, CA 92260 | City of Coachella<br>Jonathan Hoy, P.E.<br>City Engineer<br>1515 Sixth Street,<br>Coachella, CA 92236 |
| Riverside County Flood Control and Water Conservation District<br>1995 Market Street<br>Riverside, CA 92501 | Coachella Valley History Museum<br>82616 Miles Avenue,<br>Indio, CA 92201 | Coachella Valley Water District<br>PO Box 1058<br>Coachella, CA 92236 |
| Director<br>Office of Environmental Policy and Compliance, Department of the Interior<br>Main Interior Bldg. MS 2340<br>1849 C Street, NW<br>Washington, DC 20240 | California Highway Patrol Office 630<br>79650 Varner Road,<br>Indio, CA 92203 | |
| **Native American Tribes** | | |
| Augustine Band of Cahuilla Mission Indians<br>Attn: Amanda Vance<br>P.O. Box 849<br>Coachella, CA 92236 | Soboba Band of Luseno Indians<br>Attn: Joseph Ontiveras<br>P.O. Box 487<br>San Jacinto, CA 92581 | Agua Caliente Band of Cahuilla Indians<br>Attn: Patricia Garcia-Plotkin<br>5401 Dinah Shore Drive<br>Palm Springs, CA 92264 |
| Cabazon Band of Mission Indians<br>Attn: Doug Welmas<br>84-245 Indio Springs Parkway<br>Indio, CA 92203 | Agua Caliente Band of Cahuilla Indians<br>Attn: Katie Croft, Tribal Historic Preservation Officer<br>5401 Dinah Shore Drive<br>Palm Springs, CA 92264 | Cabazon Band of Mission Indians<br>Attn: Judy Stapp<br>Director of Cultural Affairs<br>84-245 Indio Springs Parkway<br>Indio, CA 92203 |

| | | |
|---|---|---|
| Torres-Martinez Desert Cahuilla Indians<br>Attn: Michael Mirelez, Cultural Resources Coordinator<br>Torres-Martinez DCI<br>P.O. Box 1160<br>Thermal, CA 92274 | Augustine Band of Cahuilla Mission Indians<br>Attn: Victoria Martin<br>P.O. Box 849<br>Coachella, CA 92236 | Twenty Nine Palms Band of Mission Indians of California<br>Anthony Madrigal Jr., Tribal Historic Preservation Officer<br>46-200 Harrison Place<br>Coachella, CA 92236 |
| Bureau of Indian Affairs<br>1451 Research Park Drive #100<br>Riverside, CA 92507 | | |
| **Elected Officials** | | |
| City of Indio<br>Mayor Lupe Ramos Amith<br>100 Civic Center Mall,<br>Indio, CA 92201 | Riverside County Supervisor<br>V. Manuel Perez, Fourth District<br>73-710 Fred Waring Drive<br>Suite 222<br>Palm Desert, CA 92260 | City of Indio<br>Waymond Fermon<br>Councilmember, Council District 2<br>100 Civic Center Mall<br>Indio, CA 92201 |
| Honorable Kamala Harris<br>United States Senator<br>312 N. Spring Street.<br>Suite 1748<br>Los Angeles, CA 90012 | City of Indio<br>Oscar Ortiz<br>Councilmember<br>Council District 4<br>100 Civic Center Mall<br>Indio, CA 92201 | City of Indio<br>Glenn Miller<br>Mayor Pro Tem<br>Council District 1<br>100 Civic Center Mall<br>Indio, CA 92201 |
| City of Indio<br>Elaine Holmes<br>Councilmember<br>Council District 3<br>100 Civic Center Mall<br>Indio, CA 92201 | Honorable Dianne Feinstein<br>United States Senator<br>11111 Santa Monica Boulevard.<br>Suite 915<br>Los Angeles, CA 90025 | District Office of United States Representative, 36th District<br>Dr. Raul Ruiz<br>43875 Washingt Street, Suite. F<br>Palm Desert, CA 92211 |
| District Office of California State Senator, 28th District<br>Jeff Stone<br>45-125 Smurr Street<br>Indio, CA 92201 | District Office of Assembly Member<br>56th District<br>Eduardo Garcia<br>48220 Jackson Street, Suite. A3<br>Indio, CA 92236 | |
| **Local Residents and Other Interested Parties** | | |
| Shadow Ranch Indio<br>5716 Corsa Avenue<br>Suite 110<br>Westlake Village, CA 91362 | James W and Alexa E Clause<br>79920 Horseshoe Road<br>La Quinta, CA 92253 | Edwin Neumeyer and James W Clause<br>79920 Horseshoe Road<br>La Quinta, CA 92253 |
| Edwin Neumeyer<br>45524 Towne Street<br>Indio, CA 92201 | Coachella Valley County Water District<br>P.O. Box 1058<br>Coachella, CA 92236 | James A. Padova<br>Indio Towne Center<br>P.O. Box 790830<br>San Antonio, TX 78279 |
| Betty L. Ingram<br>Ten Thirty Partners<br>P.O. Box 2420<br>Mills, WY 82644 | City of Indio<br>100 Civic Center Mall<br>Indio, CA 92202 | Timothy and Deborah Ditomaso<br>P.O. Box 272427<br>Anaheim, CA 92806 |
| Rudy Raul Garza<br>43639 Jacson Street<br>Indio, CA 92201 | Aljacks Retail Partners<br>16400 Pacific Coast Highway<br>Huntington Beach, CA 92649 | James Kay Murray<br>P.O. Box 584<br>La Quinta, CA 92247 |
| Garfield Beach CVS INDIO Towne Center<br>1 CVS Drive<br>Woonsocket, RI 02895 | Walmart Real Estate Business<br>8013 SE 10th Street<br>Bentoville, AR 72716 | Indio Towne Center<br>2800 E Lake Street<br>Minneapolis, MN 55403 |
| Chandi and Karan<br>P.O. Box 2817<br>Indio, CA 82202 | TRIN<br>1000 Nicollet Mall TPN 12<br>Minneapolis, MN 55403 | Aljacks<br>16400 PCH No. 2017<br>Huntington Beach, CA 92649 |
| McDonalds USA<br>James J. Femino<br>P.O. 13490<br>Palm Desert, CA 92255 | Panda Express Inc.<br>Sheung Lam Mario Woo<br>1001 L Avenue<br>National City, CA 91950 | Allied Restaurant Management<br>14173 Green Tree Boulevard<br>Victorville, CA 92395 |

| | | |
|---|---|---|
| Winco Holdings Inc.<br>P.O. Box 5756<br>Boise, ID 83705 | Kabir Alliance<br>124644 Lakewood Boulevard<br>Suite 100<br>Downey, CA 90242 | Ronald James Vernetti<br>Taco Bell Corporation<br>1115 F Avenue<br>Coronado, CA 92118 |
| Tanklage Family Partnership<br>1025 Tanklage Road<br>San Carlos, CA 94070 | Kenna IV<br>9731 Orient Express Court<br>Las Vegas, NV 89145 | Heliodora Acosta<br>43514 Smurr Street<br>Indio, CA 92201 |
| Maria Mendivil De Los Angeles<br>P.O. Box 3055<br>Indio, CA 92202 | Rafael and Arminda Rodriguez<br>43551 Smurr Street<br>Indio, CA 92201 | Nina Corona<br>54859 Bodine Drive,<br>Thermal, CA 92274 |
| Elena Maria Cervantes and Lilia B. Vargas<br>3580 Smurr Street<br>Indio, CA 92201 | Pablo Avina<br>43581 Smurr Street<br>Indio, CA 92201 | Jesus Gomez and Salc Antonio<br>43601 Smurr Street<br>Indio, CA 92201 |
| Patricia Ramirez<br>45795 Queen Palm Lane<br>Indio, CA 92201 | Camarena Prop<br>81380 Helen Avenue<br>Indio, CA 92201 | Rondel E. Olivet<br>43632 Smurr Street<br>Indio, CA 92201 |
| Yolanda Gomez<br>82752 Crest Avenue<br>Indio, CA 92201 | Irma Castro Acosta<br>43656 Smurr Street<br>Indio, CA 92201 | J.C. Auto Repair and Towing Inc.<br>43660 Jackson Street<br>Indio, CA 92201 |
| J.C. White<br>82764 Crest Avenue<br>Indio, CA 92201 | Spectrum Grande<br>42545 Showcase Parkway<br>Suite. 104<br>Indio, CA 92203 | Chandi Group USA Inc.<br>42270 Spectrum Street<br>Indio, CA 92203 |
| Aegean Atlantic<br>82750 Atlantic Avenue<br>Indio, CA 92203 | David Alvarado<br>P.O. Box 831<br>Thousand Palns, CA 92276 | Olga Castro<br>P.O. Box 1956<br>Indio, CA 92201 |
| Jose Chavez<br>81315 Green Avenue<br>Indio, CA 92201 | Ramiro Corona<br>37843 Caprice Drive<br>Indio, CA 92203 | Oscar Coronel<br>82785 Crest Avenue,<br>Indio, CA 92201 |
| DeLeon Inocencio<br>43641 West Circle Drive<br>Indio, CA 92201 | Myriam Espinosa<br>P.O. Box 10386<br>Beverly Hills, CA 90213 | Isabel Flores<br>44515 Monrose Street<br>Indio, CA 92201 |
| Sylvia and John Triplett<br>82763 Smoke Tree Avenue<br>Indio, CA 92201 | Juan and Rosa Gonzales<br>82796 Smoke Tree Avenue,<br>Indio, CA 92201 | Richard and Francisca Gonzales<br>82788 Oleander Avenue<br>Indio, CA 92201 |
| Hilda and Humberto Gonzolez<br>82763 Crest Avenue<br>Indio, CA 92201 | Hotcakes Indio<br>4510 E PCH Suite 290<br>Long Beach, CA 90804 | Osburn and Jasper Kinkade<br>74850 Leslie Avenue<br>Palm Desert, CA 92260 |
| Steven and Debra Kirkpatrick<br>P.O. Box 10430<br>Indio, CA 92202 | Lowes HIC Inc.<br>1530 Faraday Avenue Suite 140<br>Carlsbad, CA 92008 | Maria Mendez Del Carmen<br>43655 Smurr Street<br>Indio, CA 92201 |
| Irma and Guadalupe Navaro<br>82786 Crest Avenue<br>Indio, CA 92201 | 43695 Jackson<br>72096 Dunham Way Suite C Thousand Palms, CA 92276 | Jessie and Vera Partlow<br>82785 Smoke Tree Avenue<br>Indio, CA 92201 |
| Maria Ramirez<br>43712 Smurr Street<br>Indio, CA 92201 | Isaias and Michelle Rodriguez<br>82762 Smoke Tree Avenue<br>Indio, CA 92201 | Ricardo Rodriguez<br>82871 Kenner Avenue<br>Indio, CA 92201 |
| Laura and Rafael Sanchez<br>43633 Smurr Street<br>Indio, CA 92201 | Maria Tapia<br>82797 Smoke Tree Avenue<br>Indio, CA 92201 | |

# **Appendix A** Section 4(f) De Minimis Finding

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# I-10/JACKSON STREET INTERCHANGE IMPROVEMENT PROJECT

## SECTION 4(F) DE MINIMIS FINDING

Submitted Pursuant to 49 USC 303 and 23 USC 138

City of Indio, Riverside County, California
08-RIV-10-PM R54.9/R56.5

EA 0M910/PN 0800020208



**June 2020**

**STATE OF CALIFORNIA**
**Department of Transportation**

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated December 23, 2016, and executed by FHWA and Caltrans.

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Renetta Cloud, Senior Environmental Planner, California Department of Transportation, 464 West 4th Street, 6th Floor, MS-823, San Bernardino, CA 92401-1400; (909) 383-6323, or use the California Relay Service 1 (800) 735-2929 (TTY to Voice), 1 (800) 735-2922, 1 (800) 855-3000 (Spanish TTY to Voice and Voice to TTY), 1-800-854-7784 (Spanish and English Speech-to-Speech) or 711.

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# List of Abbreviated Terms

| | |
|---|---|
| BMP | best management practice |
| Caltrans | California Department of Transportation |
| CDFW | California Department of Fish and Wildlife |
| CFR | Code of Federal Regulations |
| County | County of Riverside Transportation Department |
| ESA | environmentally sensitive area |
| FHWA | Federal Highway Administration |
| MSHCP | Multiple Species Habitat Conservation Plan |
| NEPA | National Environmental Policy Act |
| NRHP | National Register of Historic Places |
| P/QP | Public/Quasi-Public |
| RCA | Western Riverside County Regional Conservation Authority |
| RSS | Riversidian sage scrub |
| SJWA | San Jacinto Wildlife Area |
| SWPPP | Storm Water Pollution Prevention Plan |
| TCE | temporary construction easement |
| USC | United States Code |
| WDP | Wolfskill-Driscoll Properties |

# Chapter 1 Introduction

## 1.1 Section 4(f) of the Department of Transportation Act of 1966

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 United States Code (USC) 303, declares that "it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites."

Section 4(f) specifies that the Secretary of Transportation may approve a transportation program or project requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if:

- there is no prudent and feasible alternative to using that land; and
- the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

Section 4(f) further requires consultation with the Department of the Interior and, as appropriate, the involved offices of the Department of Agriculture and the Department of Housing and Urban Development in developing transportation projects and programs that use lands protected by Section 4(f). If historic sites are involved, then coordination with the State Historic Preservation Officer is also needed.

The proposed project is a transportation project that would receive federal funding and/or discretionary approvals through the U.S. Department of Transportation, Federal Highway Administration (FHWA); therefore, documentation of compliance with Section 4(f) is required.

## 1.2 Section 4(f) De Minimis Impact Evaluation Requirements

Section 6009(a) of the Safe, Accountable, Flexible, Efficient Transportation Equity Act amended Section 4(f) legislation at 23 USC 138 and 49 USC 303 to simplify the processing and approval of projects that have only *de minimis* impacts on lands protected by Section 4(f). This revision provides that once the U.S. Department of Transportation determines that a transportation use of Section 4(f) property-after consideration of any impact avoidance, minimization, and mitigation or enhancement measures-results in a *de minimis* impact on that property, an analysis of avoidance alternatives is not required and the Section 4(f) evaluation process is complete.

FHWA's final rule on Section 4(f) *de minimis* findings is codified in 23 Code of Federal Regulations (CFR) 774.3 and CFR 774.17.

Responsibility for compliance with Section 4(f) has been assigned to the California Department of Transportation (Department) pursuant to 23 USC 326 and 327, including determinations and approval of Section 4(f) evaluations, as well as coordination with those agencies that have jurisdiction over a Section 4(f) resource that may be affected by a project action.

## 1.3 Section 4(f) Use

The term "use" is defined in 23 CFR 774.17 in three ways:

- When land is permanently incorporated into a transportation facility;
- When there is a temporary occupancy of land that is adverse in terms of the statute's preservation as determined by the criteria in §774.13(d); or
- When there is a constructive use[1] of a Section 4(f) property as determined by the criteria in §774.15.

[1] A constructive use occurs when the transportation project does not incorporate land from a Section 4(f) property, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the property are substantially diminished.

# Chapter 2 Project Description

The City of Indio (City), in cooperation with the California Department of Transportation (Department) and the County of Riverside (County), propose to improve the operational performance of the existing Interstate 10 (I-10)/Jackson Street Interchange within the City limits. The I-10/Jackson Street interchange is located on I-10 between Monroe Street and Golf Center Parkway. The project limits extend from approximately Post Mile (PM) R54.9 to PM R56.5 along I-10 and from Kenner Avenue (South of I-10) to Atlantic Avenue (North of I-10) along Jackson Street. The project site is centrally located within the City of Indio at the crossroad of Interstate 10 and Jackson Street, and the Coachella Valley Stormwater Channel, in Riverside County, California.

## 2.1 Purpose

The purpose of this project is to:

- Increase capacity and provide operational improvements at the I-10/Jackson Street interchange directly associated with the forecast travel demand for the 2045 design year within the City of Indio.
- Accommodate multimodal travel consistent with the City of Indio's General Plan, regional plans, and preserve the values of the area.
- Improve existing interchange geometry.

The above objectives will be evaluated within the project limits while minimizing right-of-way, environmental, and economic impacts.

## 2.2 Need

The project addresses the following needs, transportation deficiencies, and problems:

- Forecasted traffic volumes, in conjunction with the current capacity of the existing interchange, are expected to result in the interchange ramps and associated intersections operating at unacceptable levels of service by the year 2045;
- Gaps in the pedestrian and bicycle infrastructure impedes the connection between communities and businesses across the interchange;
- The existing ramp alignments, ramp intersections, and Jackson Street contain existing nonstandard geometric features.

## 2.3 Project Alternatives

Three alternatives will be evaluated in the environmental document for the proposed project:

- Alternative 1 - No-Build,
- Alternative 2 - Compact Diamond Interchange, and
- Alternative 4 - Diverging Diamond Interchange.

The proposed project alternatives are described in further detail below.

### 2.3.1 Alternative 1 – No-Build

Under this alternative, no reconstruction or improvements would be made to the existing I-10/Jackson Street interchange other than routine maintenance.

### 2.3.2 Alternative 2 – Compact Diamond Interchange

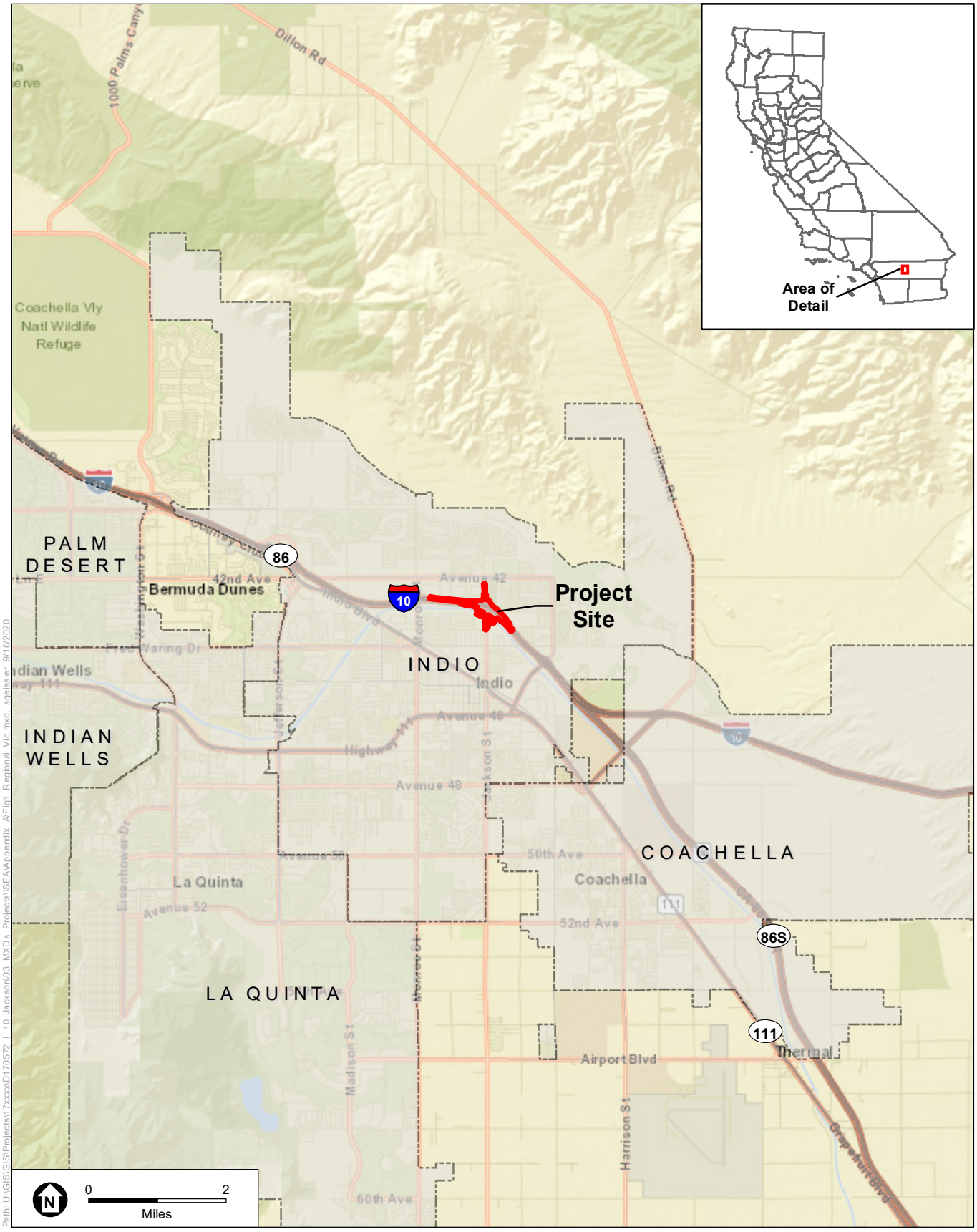
Alternative 2 would maintain the existing compact diamond configuration and reconstruct Jackson Street, I-10 bridge overcrossing, Whitewater River Bridge, and the I-10 on and off ramps. Jackson Street at the I-10 bridge crossing would be reconstructed from one lane to two lanes in each direction, and include two left turn lanes at each ramp intersection for access to eastbound and westbound I-10 on-ramps. The existing Jackson Street bridge at the Whitewater River Bridge would be widened to increase the number of through lanes from one lane to two lanes in each direction. This alternative would include reconstruction and restriping of Jackson Street to transition the additional travel lanes to the existing lane configurations north and south of the interchange. The I-10 westbound (WB) and eastbound (EB) on-ramps would be widened to two lanes and transition to a single lane merging to I-10. Interchange off-ramps would be widened, realigned and restriped to accommodate additional turn lanes to Jackson Street. Auxiliary lanes would be constructed at the I-10 WB and EB ramps to enhance merging and diverging traffic to I-10. Other features of Alternative 2 include the following improvements: construction of retaining walls, access ramps to CV Link facility, utility relocations, ROW acquisitions and installation of ramp meters. The proposed project would not result in any operational noise impacts, and therefore abatement measures are not necessary for operational noise.

### 2.3.3 Alternative 4 – Diverging Diamond Interchange

Alternative 4 would reconstruct the existing I-10/Jackson Street interchange to a DDI configuration utilizing a twin bridge layout spanning over the I-10 freeway and the Whitewater River. Two new parallel bridge structures over the Whitewater River and Jackson Street overcrossing would be constructed to accommodate two lanes, shoulders and sidewalks. The

existing bridges along Jackson Street will be evaluated whether it could accommodate two travel lanes and may be reconstructed. The crossover intersections would gradually transition traffic from the right side of the road to the left side of the road while providing free right and left-turn movements to the I-10 on-ramps before crossing over back to the right-side of the road for through traffic. The DDI configuration requires two cross-over intersections with two-phase traffic signal operation within the interchange; inbound and outbound freeway traffic would cross one intersection compared to two intersections for the diamond interchange configuration. In addition, Alternative 4 would include reconstruction and restriping of Jackson Street to transition the additional travel lanes to the existing lane configurations north and south of the interchange. The I-10 westbound and eastbound on-ramps would be widened to two lanes and transition to a single lane merging to the I-10 freeway. Interchange off-ramps would be widened, realigned and restriped to accommodate additional turn lanes to Jackson Street. Auxiliary lanes would be constructed at the I-10 WB and EB ramps to enhance merging and diverging traffic to I-10. Other features of Alternative 4 include the following improvements: construction of retaining walls, access ramps to CV Link facility, utility relocations, ROW acquisitions and installation of ramp meters. The proposed project would not result in any operational noise impacts, and therefore abatement measures are not necessary for operational noise.

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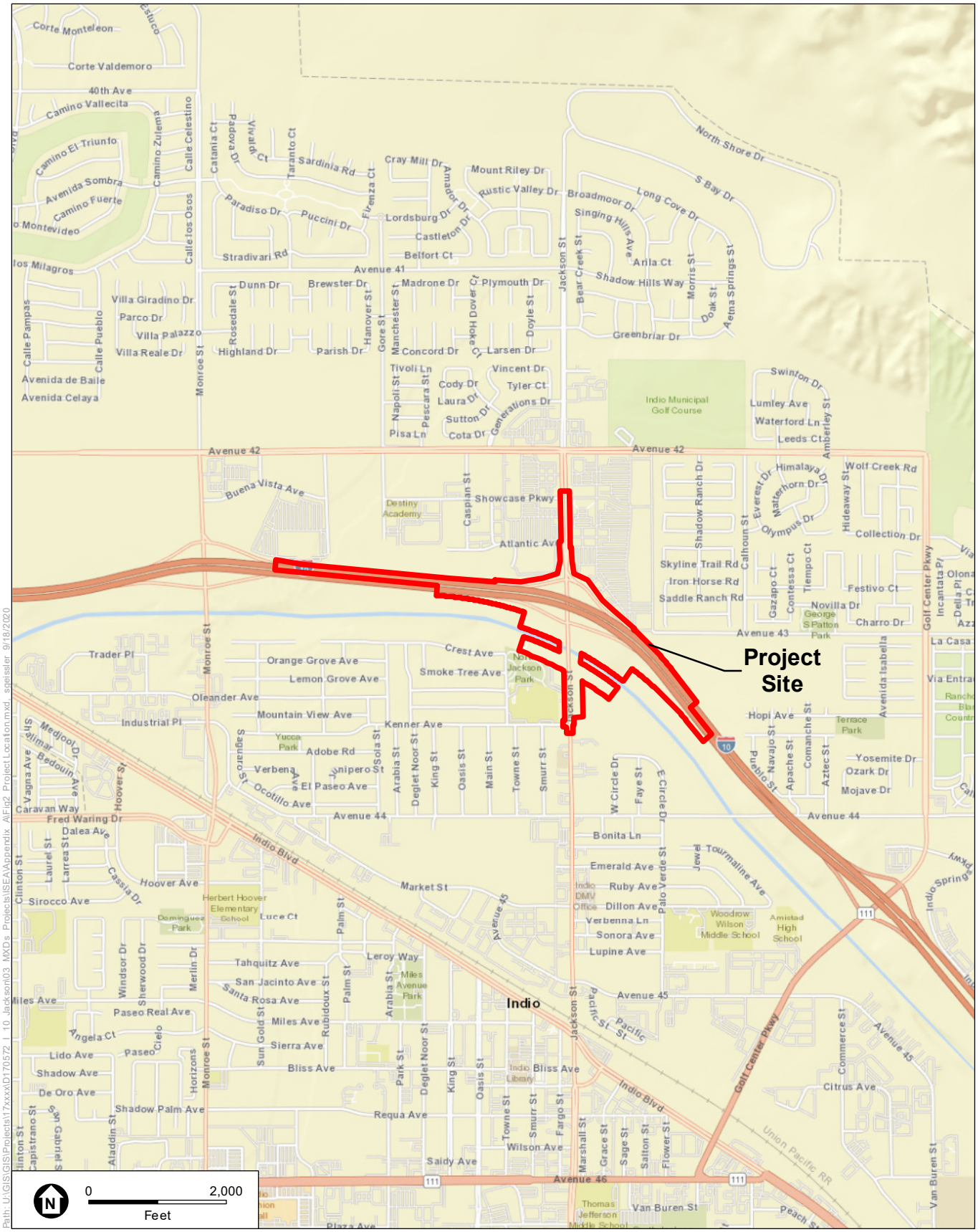



SOURCE: ESRI StreetMap North America.

I-10 / Jackson Street Interchange Project

**Figure 1**
Regional Vicinity

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SOURCE: ESRI StreetMap North America.

I-10 / Jackson Street Interchange Project

**Figure 2**
Project Location

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# Chapter 3 List and Description of Section 4(f) Properties

As noted above, resources subject to Section 4(f) consideration include publicly-owned lands such as public parks; recreational areas of national, state, or local significance; wildlife and waterfowl refuges; and historic sites of national, state, or local significance.

Resources in the project study area were identified if they were:

- Existing publicly owned recreational and park resources, including local, regional, and state resources;
- Publicly owned wildlife and water fowl refuges and conservation areas;
- Existing public bicycle, pedestrian, and equestrian trails;
- National Register of Historic Places (NRHP) listed or eligible historic sites; or
- NRHP listed or eligible archaeological sites.

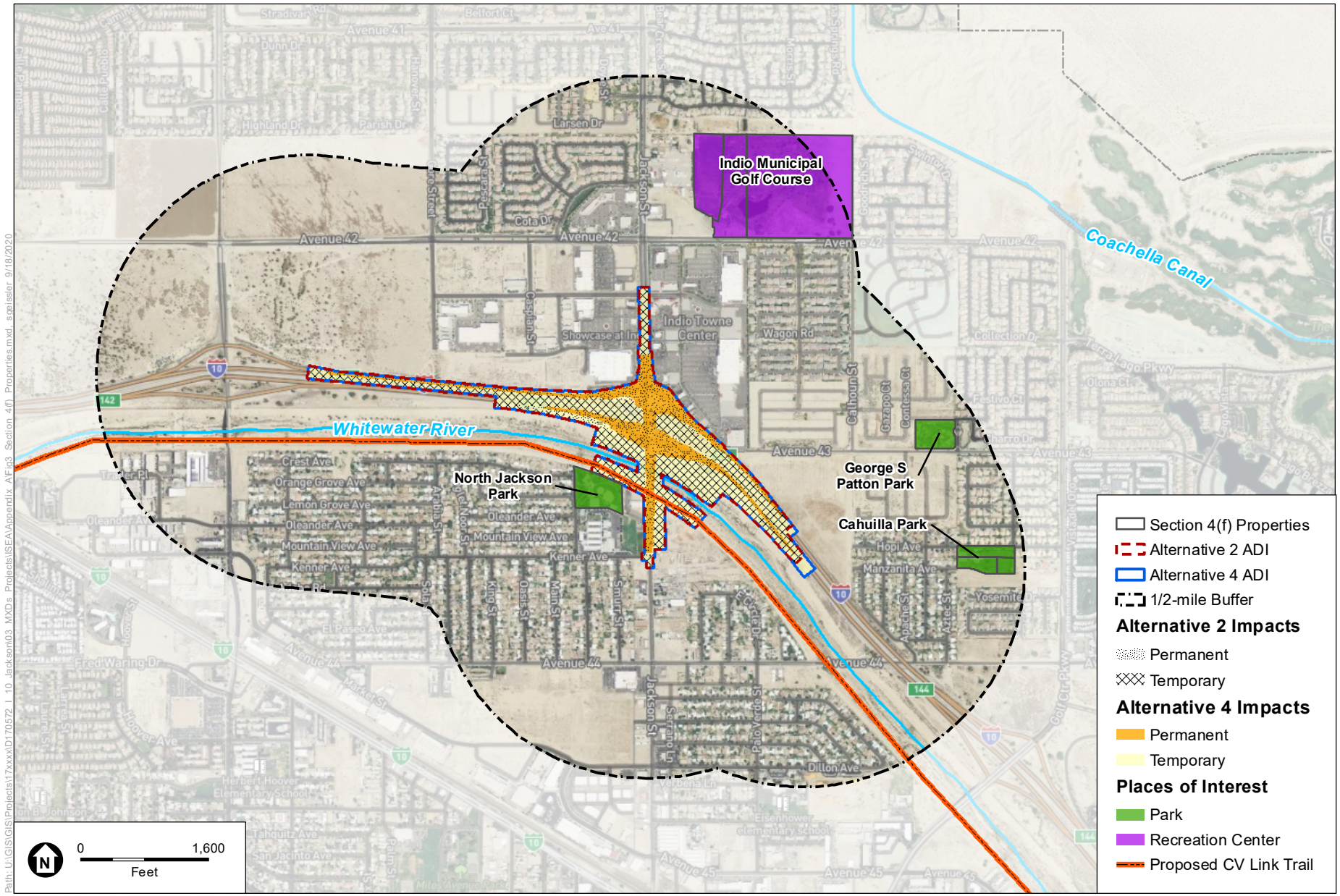
Research was conducted to identify publicly owned parks, public schools, recreational areas, wildlife and waterfowl refuges, and land from historic properties within 0.5 mile of the proposed I-10/Jackson Street Interchange Improvement Project. Based on this research, there are four properties within 0.5 mile of the project corridor that qualify as Section 4(f) resources, and one planned facility (i.e., CV Link multi-use trail) located within 0.5 mile of the project that qualifies as a Section 4(f) resource (five properties total). The CV Link trail is anticipated to be in operation in early 2021, prior to completion of the I-10/Jackson Street Interchange Improvement Project. It is prudent to note that there is a 1.17 acre of land in between the Andrew Jackson School and Jackson Street south of the interchange that is considered greenspace/landscaping that is unsafe for children to use as recreation because of its proximity to the roadway (610-230-004); therefore, it does not qualify as a Section 4(f) property. Although the elimination of a narrow portion of the parcel with the landscaping (approximately 0.2 acres) would move the roadway closer to the school, the school grounds and classrooms would be impacted only an infinitesimal amount more than they are currently experiencing.

There are no NRHP-eligible historic or archaeological sites located within 0.5 mile of the proposed interchange improvement project; therefore, there would be no impacts on NRHP-eligible historic or archaeological sites. Additionally, there are no wildlife or waterfowl refuges within the 0.5-mile buffer, and as such, there would be no impacts on refuges.

A summary of the Section 4(f) resources within 0.5 mile of the proposed I-10/Jackson Street Interchange Improvement Project is provided in Table 3-1, whereas Figure 3 identifies the Section 4(f) properties within the project study area.

**Table 3-1. Parks, Schools, and Recreational Facilities Within 0.5 mile of the Project Site**

| Facility Type | Name | Address | Distance from Project (miles) |
|---|---|---|---|
| Planned Multi-use trail | CV Link – This will be a publicly-owned recreational facility used for bicycles, pedestrians and LSEVs | Coachella Valley Stormwater Channel | 0.0 mile. Within the project's southern limits along the Coachella Valley Stormwater Channel |
| Park | North Jackson Park – Playground Equipment, Softball Fields, Tennis Courts, Basketball Courts, Walking Paths, Shaded Areas w/Tables, Barbecue Areas | 43200 Towne Street, Indio, CA 92203 | 0.0 mile. Immediately adjacent to southwestern portion of project alternatives |
| Golf Course | Indio Municipal Golf Course (also known as The Lights at Indio) | 86040 Avenue 42, Indio, CA 92203 | 0.2 mile |
| Park | George S. Patton Park- Swings, playground equipment, paths, open greenspace, walking paths, tables and benches | 83700 Avenue 43, Indio, CA 92203 | 0.35 mile |
| Park | Cahuilla Park- Open greenspace, children's playground, basketball courts, BBQ areas, softball fields | 83787 Hopi Avenue, Indio, CA 92203 | 0.39 mile |
| Source:<br>The Lights at Indio Golf Course, 2019. The Lights at Indio Golf Course. Accessed: http://www.indiogolf.com. Date Accessed: 5/9/2019<br>City of Indio. 2019. City Parks. Accessed: https://www.indio.org/your_government/community_services/city_parks.htm. Date Accessed: 4/11/2019<br>GIS | | | |




SOURCE: Riverside County GIS; National Hydrography Dataset; Google Earth 2019

I-10 / Jackson Street Interchange Project

**Figure 3**
Section 4(f) Properties
within 1/2-mile of Project Area

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# Chapter 4 Impacts on Section 4(f) Properties

This section describes the Section 4(f) resources, and the potential use of these resources, within 0.5 mile of the proposed project.

## 4.1 Resources Evaluated Relative to the Requirements of Section 4(f): De Minimis Determination

A summary of potential effects is provided in Table 4-1. Later in this chapter, additional analysis follows for the resource with the potential to be affected by the proposed project. An assessment has been made as to whether any permanent or temporary occupation of the property would occur, and whether the proximity of the project would cause any access, visual, air quality, noise, vibration, biological, or water quality effects that would substantially impair the features or attributes that qualify the resource for protection under Section 4(f).

Based on current design plans for the proposed I-10/Jackson Street Interchange Improvement Project, the proposed CV Link trail would be going through the project area; however, no adverse effects on this resource is anticipated because the trail will not be closed during construction and the uses of the trail that qualify this resource under Section 4(f) will not be adversely affected during or after construction. Therefore, a *de minimis* finding is appropriate for the trail.

**Table 4-1. Section 4(f) Impact Summary for Build Alternatives**

| Property Name | Direct Use? | Temporary Use? | Constructive Use? | Comments |
|---|---|---|---|---|
| Planned CV Link Trail | No | No | No | No direct or temporary use of the trail is expected, however, given the close proximity of construction, trail users will experience increased noise, dust, and visual impacts (among others) during construction. These impacts are anticipated to be de minimis in nature. |
| North Jackson Park | No | No | No | No direct or temporary use of the park is expected, however, given the close proximity of construction, park users will experience increased noise, dust, and visual impacts (among others) during construction. These impacts are anticipated to be de minimis in nature. |

| Property Name | Direct Use? | Temporary Use? | Constructive Use? | Comments |
|---|---|---|---|---|
| Indio Municipal Golf Course (also known as The Lights at Indio) | No | No | No | No temporary use of the golf course is expected. Given the distance and location of the project from the park, park users may experience a temporary minor increase in noise, dust, and visual impacts during construction. These impacts are anticipated to be de minimis in nature. |
| George S. Patton Park | No | No | No | No temporary use of the park is expected. Given the distance and location of the project from the park, park users may experience a temporary minor increase in noise, dust, and visual impacts during construction. These impacts are anticipated to be de minimis in nature. |
| Cahuilla Park | No | No | No | No temporary use of the park is expected. Given the distance and location of the project from the park, park users may experience a temporary minor increase in noise, dust, and visual impacts during construction. These impacts are anticipated to be de minimis in nature. |

*Source: ESA, 2019*

The analysis of potential effects on the Section 4(f) resource that follows includes discussion of how the proposed project would affect the planned trail and whether the effects would result in a use of the Section 4(f) resource.

### 4.1.1 Planned CV Link Trail

#### Description of the Planned CV Link Trail

The planned CV Link trail will be owned and operated by the Coachella Valley Association of Governments (CVAG). The trail is a proposed 50-mile alternative transportation corridor for bicycles, pedestrians and low-speed (up to 25 miles per hour) electric vehicles. The purpose of the path is to connect Palm Springs to Coachella, with future connections to reach the Desert Hot Springs and the Salton Sea. The path will allow for pedestrians, bicyclists and persons using low speed electric vehicles to connect to parks, shopping areas and schools. Restrooms, drinking fountains, benches, and electric vehicle charging stations will be available throughout the 50-mile route. The path will be ADA compliant, will utilize solar lighting and drought tolerant landscaping, and allow for public art spaces and future event space for activities such as

organized walks and races. Figure 4 shows the CV Link conception that is available on its website.

The trail in the project location crosses the proposed project on its southern limits, as can be seen in Figure 2. The project would not alter the Jackson Street Bridge, which crosses over the trail.

### Project Effects to the Planned CV Link Trail

The portion of this trail that will be located in the project area for the proposed project will be constructed in 2020 (and be in operation 2021), prior to construction of the proposed project, with anticipated completion/operation of the trail in the summer of 2021. As part of project design for both Build Alternatives, access ramps will be constructed to accommodate the CV Link Trail. Access to and from the trail would be increased by implementation of this project. During construction, there would be no change in access (i.e. there would be no change in access when comparing trail conditions prior to and after the proposed project is completed).

The proposed project would not adversely affect the activities, features, or attributes of the trail that afford it protection under Section 4(f). However, during construction, trail users would be exposed to indirect construction activities, such as increased noise through the project area, visual changes from construction equipment, and potential increases in dust and air quality concerns during construction. These indirect impacts to the trail are temporary in nature, lasting only through the duration of construction in the area, and do not constitute a use under Section 4(f), as none of the attributes that qualify the resource for protection under Section 4(f) would be impacted.

### Applicability of Section 4(f)

The proposed project would not result in any direct impacts to the proposed CV Link trail. According to the FHWA guidance provided in the Environmental Review Toolkit for Section 4(f) Evaluations, to be considered a *de minimis* impact, the amount of land to be acquired from any Section 4(f) site must not exceed 10 percent of the site. The proposed project would not acquire any land from the resource. For the reasons outlined above, the impacts on the proposed CV Link Trail are considered to be *de minimis*.

## 4.1.2 North Jackson Park

### Description of North Jackson Park

North Jackson Park is located immediately adjacent to the project limits and is shown on Figure 3. The park contains playground equipment, softball fields, tennis courts, basketball courts, walking paths, shaded areas with tables, and barbecue areas.

### Project Effects on North Jackson Park

The proposed project would not adversely affect the activities, features, or attributes of the park that afford it protection under Section 4(f). The project will not require acquisition or temporary construction easements on any of these resources, nor will the project result in temporary access impacts due available detour routes. A "use" of this park would not occur as a result of the project and provisions of Section 4(f) are not triggered.

The proposed project would not adversely affect the activities, features, or attributes of the park that afford it protection under Section 4(f). However, during construction, park users would be exposed to indirect construction activities, such as increased noise through the project area, visual changes from construction equipment, and potential increases in dust and air quality concerns during construction. These indirect impacts to the park are temporary in nature, lasting only through the duration of construction in the area, and do not constitute a use under Section 4(f), as none of the attributes that qualify the resource for protection under Section 4(f) would be impacted.

### Applicability of Section 4(f)

The proposed project would not result in any direct impacts to North Jackson Park. According to the FHWA guidance provided in the Environmental Review Toolkit for Section 4(f) Evaluations, to be considered a *de minimis* impact, the amount of land to be acquired from any Section 4(f) site must not exceed 10 percent of the site. The proposed project would not acquire any land from the resource. For the reasons outlined above, the impacts on the park are considered to be *de minimis*.

## 4.1.3 Indio Municipal Golf Course

### Description of Indio Municipal Golf Course

The Indio Municipal Golf Course, also known as The Lights of Indio Golf Course, is a public municipal course located 0.2 mile northeast of the northern project limits east of Jackson Street and is shown on Figure 3. The golf course is owned by the City of Indio and managed by Landmark Golf Management, and is a par 3 golf course. It is the only night-lighted golf course in Coachella Valley and contains a full-length driving range, short game practice area, and a fully stocked golf shop.

### Project Effects on Indio Municipal Golf Course

The proposed project would not adversely affect the activities, features, or attributes of the golf course that afford it protection under Section 4(f). The project will not require acquisition or temporary construction easements on any of these resources, nor will the project result in

temporary access impacts due available detour routes. A "use" of this golf course would not occur as a result of the project and provisions of Section 4(f) are not triggered.

Due to the distance and location from the project site, it is not anticipated that golfers would be exposed to indirect construction activity impacts, such as increased noise through the project area, visual changes from construction equipment, and potential increases in dust and air quality concerns. In addition, these indirect construction impacts would be temporary in nature, lasting only through the duration of construction in the area, and do not constitute a use under Section 4(f), as none of the attributes that qualify the resource for protection under Section 4(f) would be affected.

#### Applicability of Section 4(f)

The property is a Section 4(f) property, but no "use" will occur. Therefore, the provisions of Section 4(f) do not apply.

### 4.1.4 George S. Patton Park

#### Description of George S. Patton Park

George S. Patton Park is located 0.35 mile east of the project limits and is shown on Figure 3. The park contains swings, playground equipment, paths, open greenspace, walking paths, tables and benches.

#### Project Effects on George S. Patton Park

The proposed project would not adversely affect the activities, features, or attributes of the park that afford it protection under Section 4(f). The project will not require acquisition or temporary construction easements on any of these resources, nor will the project result in temporary access impacts due available detour routes. A "use" of this park would not occur as a result of the project and provisions of Section 4(f) are not triggered.

Due to the distance and location from the project site, it is not anticipated that golfers would be exposed to indirect construction activity impacts, such as increased noise through the project area, visual changes from construction equipment, and potential increases in dust and air quality concerns. In addition, these indirect cosnstruction impacts would be temporary in nature, lasting only through the duration of construction in the area, and do not constitute a use under Section 4(f), as none of the attributes that qualify the resource for protection under Section 4(f) would be affected.

#### Applicability of Section 4(f)

The property is a Section 4(f) property, but no "use" will occur. Therefore, the provisions of Section 4(f) do not apply.

### 4.1.5 Cahuilla Park

#### Description of Cahuilla Park

Cahuilla Park is located 0.39 mile east of the project limits and is shown on Figure 3. The park contains open greenspace, children's playground, basketball courts, BBQ areas, softball fields.

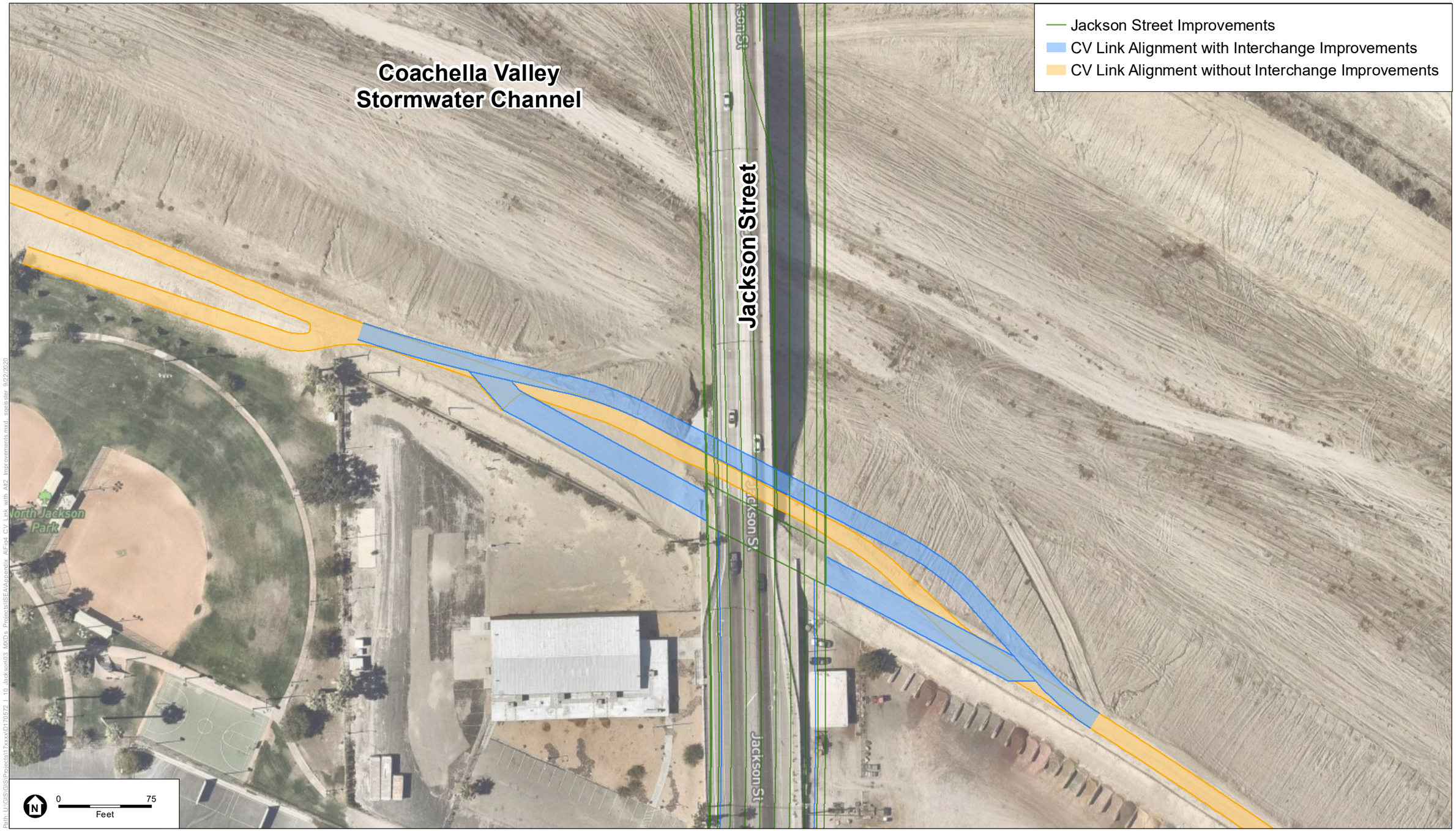
#### Project Effects on Cahuilla Park

The proposed project would not adversely affect the activities, features, or attributes of the park that afford it protection under Section 4(f). The project will not require acquisition or temporary construction easements on any of these resources, nor will the project result in temporary access impacts due available detour routes. A "use" of this park would not occur as a result of the project and provisions of Section 4(f) are not triggered.

Due to the distance and location from the project site, it is not anticipated that golfers would be exposed to indirect construction activity impacts, such as increased noise through the project area, visual changes from construction equipment, and potential increases in dust and air quality concerns. In addition, these indirect construction impacts would be temporary in nature, lasting only through the duration of construction in the area, and do not constitute a use under Section 4(f), as none of the attributes that qualify the resource for protection under Section 4(f) would be affected.

#### Applicability of Section 4(f)

The property is a Section 4(f) property, but no "use" will occur. Therefore, the provisions of Section 4(f) do not apply.

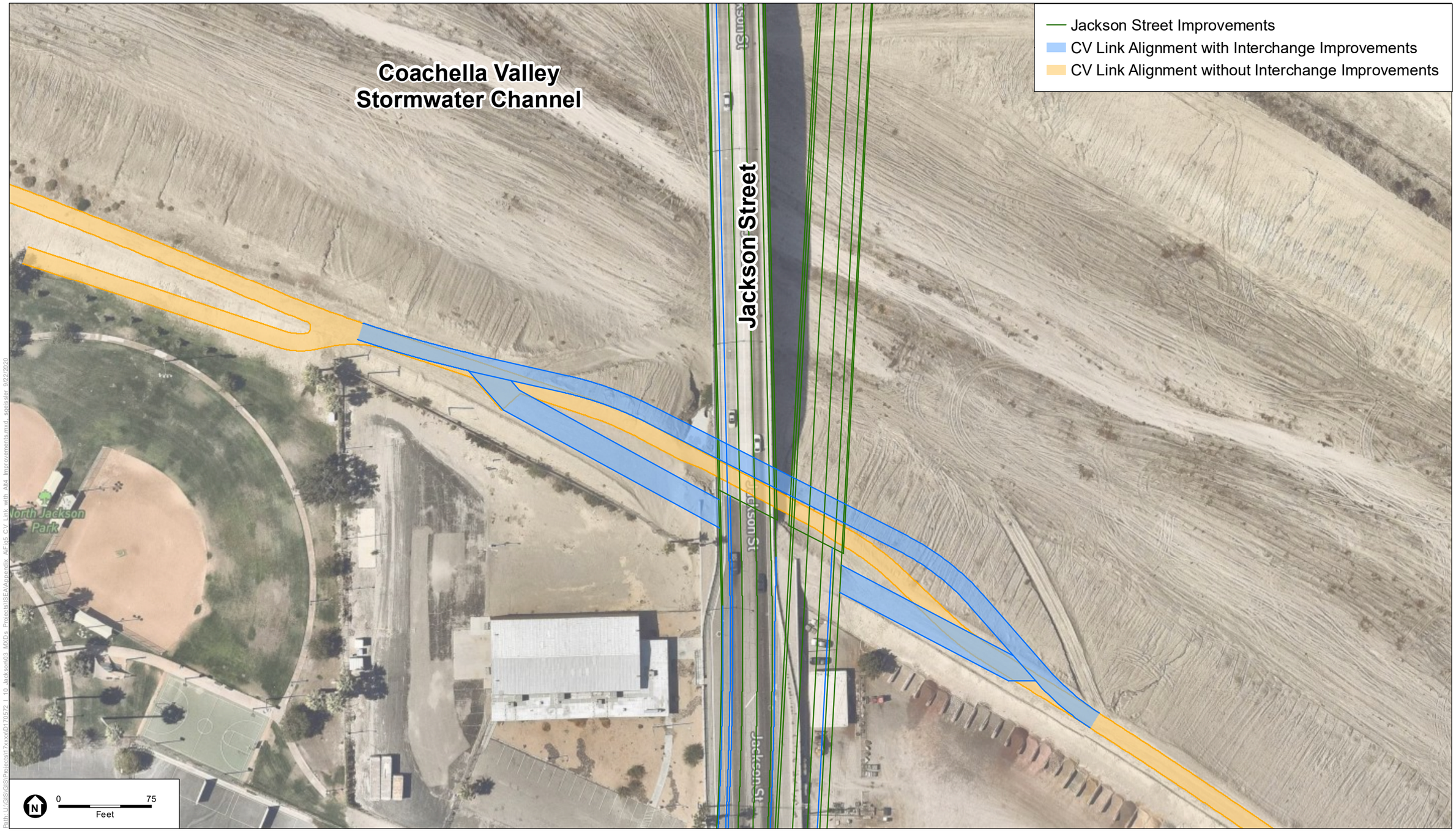



SOURCE: Mapbox, 2020.

I-10 / Jackson Street Interchange Project

**Figure 4**
CV Link Alignment with and without Interchange Improvements, Alternative 2

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SOURCE: Mapbox, 2020.

I-10 / Jackson Street Interchange Project

**Figure 5**
CV Link Alignment with and without Interchange Improvements, Alternative 4

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# Chapter 5 Avoidance, Minimization, and/or Mitigation Measures

## 5.1 Measures to Minimize Harm

Measures have been identified during development of the technical studies and the Draft IS/EA to minimize potential temporary project-related impacts on Section 4(f) properties (i.e., CV Link trail, North Jackson Park). The following minimization measures would be implemented during construction of the proposed project:

**AQ-1:** The construction contractor must comply with Caltrans Standard Specifications in Section 14-9 (Caltrans, 2018):

- Section 14-9.02 includes specifications relating to compliance with air pollution control rules, regulations, ordinances, and statutes of the local ordinances and air quality management district.
- Section 14-9.03 includes specifications relating to preventing and alleviating dust by applying water, dust palliative, or both and by covering active and inactive stockpiles.

**AQ-2:** The construction contractor must comply with the SCAQMD Rule 403 (Fugitive Dust) specifies actions or control measures to prevent or reduce PM emissions generated from construction, demolition, excavation, extraction, and other earthmoving activities.

**AQ-3:** Water or dust palliative will be applied to the site and equipment as frequently as necessary to control fugitive dust emissions.

**AQ-4:** Soil binder will be spread on any unpaved roads used for construction purposes and all project construction parking areas.

**AQ-5:** Trucks will be washed off as they leave the ROW as necessary to control fugitive dust emissions.

**AQ-6:** Construction equipment and vehicles shall be properly tuned and maintained. Low-sulfur fuel shall be used in all construction equipment as provided in California Code of Regulations Title 17, Section 93114.

**AQ-7:** Locate equipment and materials storage sites as far away from residential and park uses as practical. Keep construction areas clean and orderly.

**AQ-8:** Use track-out reduction measures such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic.

**AQ-9:** Cover all transported loads of soils and wet materials prior to transport or provide adequate freeboard (i.e., space from the top of the material to the top of the truck) to reduce PM10 and deposition of particulate during transportation.

**AQ-10:** Remove dust and mud that are deposited on paved, public roads due to construction activity and traffic to decrease PM.

**NOI-1:** To minimize potential construction noise effects, the construction contractor will adhere to BMPs to minimize construction noise levels, including the following:

a) All equipment will have sound-control devices no less effective than those provided on the original equipment. Each internal combustion engine used for any purpose on the job or related to the job will be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine should be operated on the job site without an appropriate muffler.

b) Construction methods or equipment that will provide the lowest level of noise impact (e.g., avoid impact pile driving near residences and consider alternative methods that are also suitable for the soil condition) should be used to the greatest possible extent.

c) Idling equipment will be turned off.

d) Truck loading, unloading, and hauling operations will be restricted so that noise and vibration are kept to a minimum through residential neighborhoods to the greatest possible extent.

e) Temporary noise barriers will be used and relocated, as needed, to protect sensitive receivers against excessive noise from construction activities involving large equipment and by small items such as compressors, generators, pneumatic tools, and jackhammers. Noise barriers can be made of heavy plywood, moveable insulated sound blankets, or other best available control techniques.

f) Newer equipment with improved noise muffling will be used, and all equipment items will have the manufacturer recommended noise-abatement measures (e.g., mufflers, engine covers, and engine vibration isolators) intact and operational. Newer equipment will generally be quieter in operation than older equipment. All construction equipment will be inspected at periodic intervals to ensure proper maintenance and presence of noise-control devices (e.g., mufflers and shrouding).

g) Construction activities will be minimized in residential areas during evening, nighttime, weekend, and holiday periods. Noise impacts are typically minimized when construction activities are performed during daytime hours; however, nighttime construction may be desirable (e.g., in commercial areas where businesses may be disrupted during daytime hours) or necessary to avoid major traffic disruption. Coordination with the City of Indio will occur before construction can be performed in noise-sensitive areas. Per Section 95C.09 of the City of Indio's Municipal Code, construction noise is exempted from the Noise Control provisions of the City of Indio's Municipal Code (City of Indio 2018a).

h) Construction lay-down or staging areas will be selected in industrially zoned districts. If industrially zoned areas are not available, commercially zoned areas may be used, or locations that are at least 100 feet from any noise-sensitive land use (e.g., residences).

**NOI-2:** It is possible that certain construction activities could cause intermittent localized concern from vibration in the project area. Processes such as earth moving with bulldozers, the use of vibratory compaction rollers, impact pile driving, demolitions, or pavement braking may cause construction-related vibration impacts such as human annoyance or, in some cases, building damage. There are cases where it may be necessary to use this type of equipment in proximity to residential buildings. The following are some procedures that will be used to minimize the potential impacts from construction vibration:

a) Restrict the hours of vibration-intensive equipment or activities such as vibratory rollers so that impacts on residents are minimal (e.g., weekdays during daytime hours only when as many residents as possible are away from home).

b) For a building within 50 feet of a construction vibration source where damage to that structure due to vibration is possible, provide the owner with a preconstruction building inspection to document the preconstruction condition of that structure.

c) Conduct vibration monitoring during vibration-intensive activities.

**NOI-3:** The project will comply with sound control provisions as included in Section 14-8.02, "Noise Control," of the Department's Standard Specifications and Special Provisions. The contractor will not exceed 86 dBA at 50 feet from the job site from 9:00 p.m. to 6:00 a.m.

**TRA-1:** To minimize potential impacts to traffic during construction, the Traffic Management Plan (TMP) prepared for this project will include the following components: public information communications; information for motorists from changeable message signs or temporary signs; incident management plan that would define parameters and responsibilities to respond to incidents on and adjacent to the construction corridor; construction strategies, such as traffic plans; and information regarding construction staging, lane modifications (e.g., reduced lane widths or lane closures); demand management plan to remove traffic from existing routes by using this such as expanded park and ride lots, transit service or transit and ride share incentives; and the use of alternate routes/detours. In particular, the TMP shall ensure that emergency responders have adequate access during all phases of construction, and shall provide for emergency contact points between the construction engineer and all emergency responders.

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# **Appendix B** Title VI Policy Statement

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**DEPARTMENT OF TRANSPORTATION**
OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-6130
FAX (916) 653-5776
TTY 711
www.dot.ca.gov

*Making Conservation a California Way of Life.*

November 2019

**NON-DISCRIMINATION POLICY STATEMENT**

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures "*No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.*"

Related federal statutes, remedies, and state law further those protections to include sex, disability, religion, sexual orientation, and age.

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 324-8379 or visit the following web page: https://dot.ca.gov/programs/business-and-economic-opportunity/title-vi.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, at 1823 14th Street, MS-79, Sacramento, CA 95811; (916) 324-8379 (TTY 711); or at Title.VI@dot.ca.gov.

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Director

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# Appendix C Environmental Commitments Record

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# Environmental Commitments Record (ECR)

**DIST-CO-RTE:** 8–RIV–10 **PM/PM:** (PM R54.9/R56.5) **EA/Project ID.:** EA 08-0M910
**Project Description:** I-10/Jackson Interchange Improvement Project
**Date (Last modification):** TBD
**Environmental Planner:** Adrian Castillo **Phone No.:** (909) 388-7068
**Construction Liaison:** TBD **Phone No.:** TBD
**Resident Engineer:** TBD **Phone No.:** TBD

In order to be sure that all of the environmental measures identified in this document are executed at the appropriate times, the following mitigation program (as articulated on the proposed Environmental Commitments Record [ECR] which follows) would be implemented. During project design, avoidance, minimization, and /or mitigation measures will be incorporated into the project's final plans, specifications, and cost estimates, as appropriate. All permits will be obtained prior to implementation of the project. During construction, environmental and construction/engineering staff will ensure that the commitments contained in this ECR are fulfilled. Following construction and appropriate phases of project delivery, long-term mitigation maintenance and monitoring will take place, as applicable. As the following ECR is a draft, some fields have not been completed, and will be filled out as each of the measures is implemented. Note: Some measures may apply to more than one resource area. Duplicative or redundant measures have not been included in this ECR.

## PERMITS

| Permit | Agency | Application Submitted | Permit Received | Permit Expiration | Permit Requirement Completed by: | Permit Requirement Completed on: | Comments |
|---|---|---|---|---|---|---|---|
| Section 1602 Streambed Alteration Agreement. | California Department of Fish & Wildlife | Enter date | Enter date | Enter date | Enter Name | Enter date | Enter comments |
| National Pollutant Discharge Elimination System (NPDES) Permit | State Water Resources Control Board | Enter date | Enter date | Enter date | Enter Name | Enter date | Enter comments |
| Porter-Cologne Act and CWA Section 401 Water Quality Certification | Colorado River Regional Water Quality Control Board (RWQCB) | Enter date | Enter date | Enter date | Enter Name | Enter date | Enter comments |
| Clean Water Act (CWA) Section 404 Nationwide Permit | U.S. Army Corps of Engineers (USACE) | Enter date | Enter date | Enter date | Enter Name | Enter date | Enter comments |

## ENVIRONMENTAL COMMITMENTS

### PA&ED

| Category | Task and Brief Description | Source | Included in PS&E package | Responsible Branch/Staff | Action to Comply | Due Date | Task Completed by | Task Completed on | Remarks | Mitigation for significant impacts under CEQA? |
|---|---|---|---|---|---|---|---|---|---|---|
| Cultural Resources | CR-1: If cultural materials are discovered during construction, all earthmoving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find. | District Environmental Cultural Resources (month, day year) | Yes | District Cultural Studies/ District Design/ Resident Engineer/ Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Cultural Resources | CR-2: If human remains are discovered, California Health and Safety Code (H&SC) Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. If the remains are thought by the coroner to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), who, pursuant to PRC Section 5097.98, will then notify the Most Likely Descendent (MLD). The person who discovered the remains will contact the District 8 Division of Environmental Planning; Andrew Walters, DEBC: (909)383-2647 and Gary Jones, DNAC: (909)383-7505. Further provisions of PRC 5097.98 are to be followed as applicable. | District Environmental Cultural Resources (month, day, year) | Yes | District Cultural Studies/ District Design/ Resident Engineer/ Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |

| Category | Task and Brief Description | Source | Included in PS&E package | Responsible Branch/Staff | Action to Comply | Due Date | Task Completed by | Task Completed on | Remarks | Mitigation for significant impacts under CEQA? |
|---|---|---|---|---|---|---|---|---|---|---|
| Other | TRA-1: To minimize potential impacts to traffic during construction, the Traffic Management Plan (TMP) prepared for this project will include the following components: public information communications; information for motorists from changeable message signs or temporary signs; incident management plan that would define parameters and responsibilities to respond to incidents on and adjacent to the construction corridor; construction strategies, such as traffic plans; and information regarding construction staging, lane modifications (e.g., reduced lane widths or lane closures); demand management plan to remove traffic from existing routes by using this such as expanded park and ride lots, transit service or transit and ride share incentives; and the use of alternate routes/detours. In particular, the TMP shall ensure that emergency responders have adequate access during all phases of construction, and shall provide for emergency contact points between the construction engineer and all emergency responders. | Environmental Document: Section 2.1.9.4 | Yes | District Design / District Traffic Management / District Environmental Planning / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Visual Resources | VIS-1: None | Enter source | Yes | District Design / District Landscape Architecture / District Environmental Planning / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Other | HYD-1: None | Enter source | Yes | District Design / District Hydraulics / District Biological Studies / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Water Quality | WQ-1: Implement Stormwater BMPs. The I-10/Jackson Street Interchange Improvement Project would be required to conform to the requirements of the Caltrans Statewide National Pollutant Discharge Elimination System Stormwater Permit, Order No. 2012-0011-DWQ, NPDES No. CAS000003, adopted by the State Water Resources Control Board on July 1, 2013, and any subsequent permit in effect at the time of construction. In addition, the I-10/Jackson Street Interchange Improvement Project would be required to comply with the requirements of Order No. 5-01-130, and the NPDES Permit for Construction Activities, Order No. 2012-006-DWQ, NPES No. CAS000002, as well as implementation of the BMPs specified in Department's Stormwater Management Plan. | Environmental Document: Section 2.2.2.4 | Yes | District Design / District Storm Water / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Water Quality | WQ-2: Prepare and Implement a Stormwater Pollution Prevention Plan. The contractor would be required to develop a SWPPP. The SWPPP shall contain BMPs that have demonstrated effectiveness at reducing stormwater pollution. | Environmental Document: Section 2.2.2.4 | Yes | District Design / District Storm Water / | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |

| Category | Task and Brief Description | Source | Included in PS&E package | Responsible Branch/Staff | Action to Comply | Due Date | Task Completed by | Task Completed on | Remarks | Mitigation for significant impacts under CEQA? |
|---|---|---|---|---|---|---|---|---|---|---|
| | The SWPPP shall address all construction-related activities, equipment, and materials that have the potential to affect water quality. All Construction Site Best Management Practice would follow the latest edition of the Stormwater Quality Handbooks, Construction Site BMPs Manual to control and minimize the impacts of construction-related pollutants. The SWPPP shall include BMPs to control pollutants, sediment from erosion, stormwater runoff, and other construction-related impacts. In addition, the SWPPP shall include implementation of specific stormwater effluent monitoring requirements based on the project's risk level to ensure that the implemented BMPs are effective in preventing the exceedance of any water quality standards. | | | Resident Engineer / Contractor | | | | | | |
| Water Quality | WQ-3: Discharge of Construction Water. If dewatering is determined to be required during PS&E for the preferred alternative, the contractor shall fully conform to the requirements specified in Order No. R5-00-175, General Waste Discharge requirements for Discharges to Surface Water which Pose an Insignificant (De Minimus) Threat to Water Quality, from the Colorado River RWQCB. | Environmental Document: Section 2.2.2.4 | Yes | District Design / District Storm Water / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Water Quality | WQ-4: Discharge of Dredged or Fill Material. A section 404 Permit is will be acquired for the discharge of dredged or fill material into water of the U.S., because the project involves work over the CVSC. | Environmental Document: Section 2.2.2.4 | Yes | District Design / District Storm Water / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Water Quality | WQ-5: Discharge of Pollutants into Waters of the U.S. A Section 401 Certification from the State is most frequently required in tandem with a Section 404 Permit; therefore, a 401 Certification from the State would be required to ensure that the discharge will comply with applicable Federal and State effluent limitations and water quality standards. | Environmental Document: Section 2.2.2.4 | Yes | District Design / District Storm Water / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Water Quality | WQ-6: Bank or Stream Bed Alteration Agreement. Per Section 1602 of the Fish and Game Code, the I-10/Jackson Street Interchange Improvement Project would be required to notify the Department of Fish and Game of any proposed activity that would substantially divert or obstruct the natural flow of any river, stream, or lake; substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. | Environmental Document: Section 2.2.2.4 | Yes | District Design / District Storm Water / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Other | WET-1: Construction activities within the CVSC will be designed and conducted to maintain downstream flow conditions, if water is present. All construction activities will be effectively isolated from water flows to the greatest extent feasible. This may be accomplished by working in the dry season or dewatering the work area in the wet season. When work in standing or flowing water is required, structures for isolating the in-water work area and/or diverting the water flow must not be removed until all disturbed areas are cleaned and stabilized. The diverted water flow must not be contaminated by construction activities. Structures used to isolate the in-water work area and/or diverting the water flow (e.g., coffer | Environmental Document: Section 2.3.2.4 | Yes | Enter name | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |

| Category | Task and Brief Description | Source | Included in PS&E package | Responsible Branch/Staff | Action to Comply | Due Date | Task Completed by | Task Completed on | Remarks | Mitigation for significant impacts under CEQA? |
|---|---|---|---|---|---|---|---|---|---|---|
| | dam, geotextile silt curtain) must not be removed until all disturbed areas are stabilized. | | | | | | | | | |
| Paleontology | PAL-1: If unanticipated discoveries are made all work must halt within 50 feet until a qualified paleontologist can evaluate the find. Work may resume immediately outside of the 50-foot radius. | Environmental Document: Section 2.2.4.4 | Yes | District Design / District Paleontological Studies / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Noise | NOI-1 To minimize potential construction noise effects, the construction contractor will adhere to BMPs to minimize construction noise levels, including the following:<br><br>a) All equipment will have sound-control devices no less effective than those provided on the original equipment. Each internal combustion engine used for any purpose on the job or related to the job will be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine should be operated on the job site without an appropriate muffler.<br>b) Construction methods or equipment that will provide the lowest level of noise impact (e.g., avoid impact pile driving near residences and consider alternative methods that are also suitable for the soil condition) should be used to the greatest possible extent.<br>c) Idling equipment will be turned off.<br>d) Truck loading, unloading, and hauling operations will be restricted so that noise and vibration are kept to a minimum through residential neighborhoods to the greatest possible extent.<br>e) Temporary noise barriers will be used and relocated, as needed, to protect sensitive receivers against excessive noise from construction activities involving large equipment and by small items such as compressors, generators, pneumatic tools, and jackhammers. Noise barriers can be made of heavy plywood, moveable insulated sound blankets, or other best available control techniques.<br>f) Newer equipment with improved noise muffling will be used, and all equipment items will have the manufacturer recommended noise-abatement measures (e.g., mufflers, engine covers, and engine vibration isolators) intact and operational. Newer equipment will generally be quieter in operation than older equipment. All construction equipment will be inspected at periodic intervals to ensure proper maintenance and presence of noise-control devices (e.g., mufflers and shrouding).<br>g) Construction activities will be minimized in residential areas during evening, nighttime, weekend, and holiday periods. Noise impacts are typically minimized when construction activities are performed during daytime hours; however, nighttime construction may be desirable (e.g., in commercial areas where businesses | Environmental Document: Section 2.2.7.4 | Yes | District Design / District Environmental Engineering / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |

| Category | Task and Brief Description | Source | Included in PS&E package | Responsible Branch/Staff | Action to Comply | Due Date | Task Completed by | Task Completed on | Remarks | Mitigation for significant impacts under CEQA? |
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| | may be disrupted during daytime hours) or necessary to avoid major traffic disruption. Coordination with the City of Indio will occur before construction can be performed in noise-sensitive areas. Per Section 95C.09 of the City of Indio's Municipal Code, construction noise is exempted from the Noise Control provisions of the City of Indio's Municipal Code (City of Indio 2018a). Construction lay-down or staging areas will be selected in industrially zoned districts. If industrially zoned areas are not available, commercially zoned areas may be used, or locations that are at least 100 feet from any noise-sensitive land use (e.g., residences). | | | | | | | | | |
| Noise | NOI-2: It is possible that certain construction activities could cause intermittent localized concern from vibration in the project area. Processes such as earth moving with bulldozers, the use of vibratory compaction rollers, impact pile driving, demolitions, or pavement braking may cause construction-related vibration impacts such as human annoyance or, in some cases, building damage. There are cases where it may be necessary to use this type of equipment in proximity to residential buildings. The following are some procedures that will be used to minimize the potential impacts from construction vibration:<br>a) Restrict the hours of vibration-intensive equipment or activities such as vibratory rollers so that impacts on residents are minimal (e.g., weekdays during daytime hours only when as many residents as possible are away from home).<br>b) For a building within 50 feet of a construction vibration source where damage to that structure due to vibration is possible, provide the owner with a preconstruction building inspection to document the preconstruction condition of that structure.<br>c) Conduct vibration monitoring during vibration-intensive activities. | Environmental Document: Section 2.2.7.4 | Yes | District Design / District Environmental Engineering / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Noise | NOI-3: The project will comply with sound control provisions as included in Section 14- 8.02, "Noise Control," of the Department's Standard Specifications and Special Provisions. The contractor will not exceed 86 dBA at 50 feet from the job site from 9:00 p.m. to 6:00 a.m. | Enter source | Yes | District Design / District Environmental Engineering / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Hazardous Waste | HAZ-1 A Phase II/Site Characterization Specialist shall conduct sampling in order to determine whether residual lead contamination exists within areas of proposed right-of-way acquisition for both build alternatives. Results of the sampling shall indicate soil management practices that will be employed, including the reuse of soils on-site, disposal of soils off-site, and worker safety precautions that may be necessary during construction. | Environmental Document: Section 2.2.5.5 | No | District Design / District Environmental Engineering / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Hazardous Waste | HAZ-2 All on-site ACM shall be abated by a licensed asbestos abatement contractor prior to demolition/renovation activities. Any suspect materials found during future field activities that | Environmental Document: Section 2.2.5.5 | Yes | District Design / District Environmental Engineering / | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |

| Category | Task and Brief Description | Source | Included in PS&E package | Responsible Branch/Staff | Action to Comply | Due Date | Task Completed by | Task Completed on | Remarks | Mitigation for significant impacts under CEQA? |
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| | were not previously sampled shall be sampled prior to removal and abated as necessary. | | | Resident Engineer / Contractor | | | | | | |
| Hazardous Waste | HAZ-3 Applicable laws and regulations will be followed, including those provisions requiring notification to building occupants, renovation contractors, and workers of the presence of ACM and LBP. | Environmental Document: Section 2.2.5.5 | Yes | District Design / District Environmental Engineering / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Hazardous Waste | HAZ-4 Although the on-site transformers have not resulted in a REC on the subject site, any transformer to be relocated/removed during site construction/demolition should be conducted under the purview of the local purveyor to identify property-handling procedures regarding PCBs. | Environmental Document: Section 2.2.5.5 | Yes | District Design / District Environmental Engineering / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Hazardous Waste | HAZ-5 The contractor shall conduct work in compliance with the California Department of Transportation's (Caltrans) Unknown Hazards Procedures for Construction. In the event that suspect contamination is discovered during site disturbance/construction activities, work shall cease in the vicinity of the find and the contractor shall retain a qualified Phase II/Site Characterization Specialist to sample/test the suspect materials prior to removal from the site and subsequent disposal. The Specialist shall document the results and recommend further action if necessary, including contacting appropriate regulatory agencies. | Environmental Document: Section 2.2.5.5 | Yes | District Design / District Environmental Engineering / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Air Quality | AQ-1 The construction contractor must comply with Caltrans Standard Specifications in Section 14-9 (Caltrans, 2018):<br>• Section 14-9.02 includes specifications relating to compliance with air pollution control rules, regulations, ordinances, and statutes of the local ordinances and air quality management district.<br>Section 14-9.03 includes specifications relating to preventing and alleviating dust by applying water, dust palliative, or both and by covering active and inactive stockpiles. | Environmental Document: Section 2.2.6.4 | Yes | District Design / District Environmental Engineering / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Air Quality | AQ-2 The construction contractor must comply with the SCAQMD Rule 403 (Fugitive Dust) specifies actions or control measures to prevent or reduce PM emissions generated from construction, demolition, excavation, extraction, and other earthmoving activities. | Environmental Document: Section 2.2.6.4 | Yes | District Design / District Environmental Engineering / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Air Quality | AQ-3 Water or dust palliative will be applied to the site and equipment as frequently as necessary to control fugitive dust emissions. | Environmental Document: Section 2.2.6.4 | Yes | District Design / District Environmental Engineering / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Air Quality | AQ-4 Soil binder will be spread on any unpaved roads used for construction purposes and all project construction parking areas. | Environmental Document: Section 2.2.6.4 | Yes | District Design / District Environmental | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |

| Category | Task and Brief Description | Source | Included in PS&E package | Responsible Branch/Staff | Action to Comply | Due Date | Task Completed by | Task Completed on | Remarks | Mitigation for significant impacts under CEQA? |
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| | | | | Engineering / Resident Engineer / Contractor | | | | | | |
| Air Quality | AQ-5 Trucks will be washed off as they leave the ROW as necessary to control fugitive dust emissions. | Environmental Document: Section 2.2.6.4 | Yes | District Design / District Environmental Engineering / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Air Quality | AQ-6 Construction equipment and vehicles shall be properly tuned and maintained. Low-sulfur fuel shall be used in all construction equipment as provided in California Code of Regulations Title 17, Section 93114. | Environmental Document: Section 2.2.6.4 | Yes | District Design / District Environmental Engineering / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Air Quality | AQ-7 Locate equipment and materials storage sites as far away from residential and park uses as practical. Keep construction areas clean and orderly. | Environmental Document: Section 2.2.6.4 | Yes | District Design / District Environmental Engineering / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Air Quality | AQ-8 Use track-out reduction measures such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic. | Environmental Document: Section 2.2.6.4 | Yes | District Design / District Environmental Engineering / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Air Quality | AQ-9 Cover all transported loads of soils and wet materials prior to transport or provide adequate freeboard (i.e., space from the top of the material to the top of the truck) to reduce PM10 and deposition of particulate during transportation. | Environmental Document: Section 2.2.6.4 | Yes | District Design / District Environmental Engineering / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Air Quality | AQ-10 Remove dust and mud that are deposited on paved, public roads due to construction activity and traffic to decrease PM. | Environmental Document: Section 2.2.6.4 | Yes | District Design / District Environmental Engineering / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Biology | BIO-1: Project activities within the Whitewater River should be timed to begin immediately after maintenance activities conducted by the CVWD, if possible, to reduce the potential for impacts to special-status species. Alternatively, pre-construction surveys for special-status plant species should be conducted within 7 days of the start of project activities within the Whitewater River. Prior to construction, designating environmentally sensitive areas with ESA fencing should be | Environmental Document: Section 2.3.3.4 | Yes | District Design / District Biological Studies / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |

| Category | Task and Brief Description | Source | Included in PS&E package | Responsible Branch/Staff | Action to Comply | Due Date | Task Completed by | Task Completed on | Remarks | Mitigation for significant impacts under CEQA? |
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| | used to mark the boundary of the work area within the Whitewater River. If a special-status plant species is observed within the work area, ESA fencing will be installed and the area avoided. If unavoidable, the Resource Agencies shall be consulted to discuss the appropriate method for relocation. Specific measures to protect Little San Bernardino Mountains linanthus are included in the CVMSHCP. | | | | | | | | | |
| Biology | BIO-2: Project activities within the Whitewater River should be timed to begin immediately after maintenance activities conducted by the CVWD, if possible, to reduce the potential for impacts to special-status amphibian species. Alternatively, pre-construction surveys for special-status amphibian species should be conducted within 48 hours of the start of project activities within the Whitewater River. Prior to construction, designating environmentally sensitive areas with ESA fencing should be used to mark the boundary of the work area within the Whitewater River. In addition, agency-approved fencing should be installed around the work area to prevent special-status amphibian species from entering the work area. Fencing should be checked on a weekly basis and maintained to agency standards. If a special-status amphibian species is observed within the work area, it should be avoided and all activities should stop within the immediate area until the individual moves out of the work area. If the individual needs to be relocated, the Resource Agencies shall be consulted to discuss the appropriate method for relocation. | Environmental Document: Section 2.3.4.4 | Yes | District Design / District Biological Studies / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Biology | BIO-3: Project activities within the Whitewater River should be timed to begin immediately after maintenance activities conducted by the CVWD, if possible, to reduce the potential for impacts to desert tortoise. Alternatively, pre-construction surveys for desert tortoise should be conducted within 48 hours of the start of project activities within the Whitewater River. Prior to construction, designating environmentally sensitive areas with ESA fencing should be used to mark the boundary of the work area within the Whitewater River. If a desert tortoise is observed within the work area, it should be avoided and all activities should stop until the individual moves out of harm's way or out of the work area. If the individual needs to be relocated, the Resource Agencies shall be consulted to discuss the appropriate method for relocation. Specific measures to protect desert tortoise are included in the CVMSHCP. | Environmental Document: Section 2.3.4.4 | Yes | District Design / District Biological Studies / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Biology | BIO-4: Burrowing Owl. Environmental awareness training is recommended for all staff and construction crews to indicate the local sensitivity of the area relative to the burrowing owl and other special-status species with potential to occur. The training should include a description of the species and its habitat, identification, regulatory status, penalties for harming the owl, and protocols to follow if burrowing owl are detected on-site. Training should be carried out by a qualified biologist who is familiar with the life history of the burrowing owl. In addition, pre-construction surveys following the 2012 CDFW Staff Report on Burrowing Owl Mitigation should be conducted to identify owls in or within close proximity to project activities. Should owls be observed, measures to avoid or minimize impacts including non-disturbance buffers and/or burrow exclusion | Environmental Document: Section 2.3.4.4 | Yes | District Design / District Biological Studies / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |

| Category | Task and Brief Description | Source | Included in PS&E package | Responsible Branch/Staff | Action to Comply | Due Date | Task Completed by | Task Completed on | Remarks | Mitigation for significant impacts under CEQA? |
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| | should be implemented and should follow the 2012 Staff Report setback distances by level of disturbance. Specific measures to protect burrowing owl are included in the CVMSHCP. | | | | | | | | | |
| Biology | BIO-5: Migratory Bird and Raptors. Since construction of the project may potentially impact nesting resident and migratory birds, avoidance and minimization measures are recommended to decrease potential impacts to nesting birds. It is recommended that construction activity occur outside of the nesting season, which typically extends from February 1 through September 30, but can vary based on seasonal conditions. If construction activity must proceed during the nesting season, a preconstruction nesting bird survey must be conducted within 3 days prior to ground-disturbing activities. If an active nest is observed, a qualified biologist will determine an appropriate buffer size to avoid impacts to the nest. Buffer size would be dependent upon such factors as species of bird, existing disturbances, and level of disturbance of project activity. If no active nests are observed during the preconstruction survey, construction activity would have no effect on nesting resident and migratory birds and no further measures are required. Specific measures to protect Crissal thrasher and LeConte's thrasher are included in the CVMSHCP. | Environmental Document: Section 2.3.4.4 | Yes | District Design / District Biological Studies / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Biology | BIO-6: It is recommended that construction activities occur outside of the bat maternity roosting season, which typically extends from April 1 through August 30, but can vary based on seasonal conditions. If construction activity must proceed during the maternity roosting season, a pre-construction roosting bat survey must be conducted by a qualified biologist within 3 days of ground-disturbing activities. If an active roost is observed or detected, a qualified biologist should determine an appropriate buffer size and delineate the buffer using ESA fencing. If no active bat roosts are observed, construction activity would have no effect on roosting bats and no further measures are required. | Environmental Document: Section 2.3.4.4 | Yes | District Design / District Biological Studies / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Biology | BIO-7: Project activities within the Whitewater River should be timed to begin immediately after maintenance activities conducted by the CVWD, if possible, to reduce the potential for impacts to special-status mammal species. Alternatively, pre-construction surveys for special-status mammal species should be conducted within 3 days of the start of project activities within the Whitewater River. Prior to construction, ESA fencing should be used to mark the boundary of the work area within the Whitewater River. If a special-status mammal species is observed within the work area, it should be avoided and all activities should stop within the immediate area until the individual moves out of the work area. If the individual needs to be relocated, the Resource Agencies shall be consulted to discuss the appropriate method for relocation. Specific measures to protect Palm Springs pocket mouse are included in the CVMSHCP. | Environmental Document: Section 2.3.4.4 | Yes | District Design / District Biological Studies / Resident Engineer / Contractor | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Biology | BIO-8: All construction equipment will be inspected and cleaned prior to use in the project footprint to minimize the importation of non-native plant material. All mulch, topsoil, and | Environmental Document: Section 2.3.6.3 | Yes | District Design / District Biological | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |

| Category | Task and Brief Description | Source | Included in PS&E package | Responsible Branch/Staff | Action to Comply | Due Date | Task Completed by | Task Completed on | Remarks | Mitigation for significant impacts under CEQA? |
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| | seed mixes used during post-construction landscaping activities and erosion control BMPs will be free of invasive plant species propagules. A weed abatement program will be implemented should invasive plant species colonize the area within the project footprint post-construction. | | | Studies / Resident Engineer / Contractor | | | | | | |
| Community Impact Assessment | COM-1: Right of way will be acquired in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as Amended, and property owners will receive just compensation and fair market value for their property. | Environmental Document: Section 2.1.6.4 | Yes | Enter name | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Other | GHG-1: The contractor must comply with SCAQMD's rules, ordinances, and regulations regarding air quality restrictions. | Environmental Document: Section 3.3 | Yes | Enter name | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Other | GHG-2: The project will incorporate the use of energy efficient lighting. | Environmental Document: Section 3.3 | Yes | Enter name | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Other | GHG-3: Bids will be solicited that include use of energy and fuel-efficient fleets in accordance with current practices. | Environmental Document: Section 3.3 | Yes | Enter name | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Other | GHG-4: The project will incorporate complete streets components, specifically pedestrian sidewalks, and bicycle and LSEV paths in the shoulder. | Environmental Document: Section 3.3 | Yes | Enter name | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Other | GHG-5: The project will maintain equipment in proper tune and working condition. | Environmental Document: Section 3.3 | Yes | Enter name | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |
| Other | GHG-6: Idling is limited to 5 minutes for delivery and dump trucks and other diesel-powered equipment (with some exceptions). | Environmental Document: Section 3.3 | Yes | Enter name | Enter action | Enter date | Enter Name | Enter date | Enter remarks | No |

**PS&E/BEFORE RTL**

| Category | Task and Brief Description | Source | Included in PS&E package | Responsible Branch/Staff | Action to Comply | Due Date | Task Completed by | Task Completed on | Remarks | Mitigation for significant impacts under CEQA? |
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**ROW/PURCHASING**

| Category | Task and Brief Description | Source | Included in PS&E package | Responsible Branch/Staff | Action to Comply | Due Date | Task Completed by | Task Completed on | Remarks | Mitigation for significant impacts under CEQA? |
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| Category | Task and Brief Description | Source | Included in PS&E package | Responsible Branch/Staff | Action to Comply | Due Date | Task Completed by | Task Completed on | Remarks | Mitigation for significant impacts under CEQA? |
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## PRE-CONSTRUCTION

| Category | Task and Brief Description | Source | Included in PS&E package | Responsible Branch/Staff | Action to Comply | Due Date | Task Completed by | Task Completed on | Remarks | Mitigation for significant impacts under CEQA? |
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## CONSTRUCTION

| Category | Task and Brief Description | Source | Included in PS&E package | Responsible Branch/Staff | Action to Comply | Due Date | Task Completed by | Task Completed on | Remarks | Mitigation for significant impacts under CEQA? |
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## POST-CONSTRUCTION

| Category | Task and Brief Description | Source | Included in PS&E package | Responsible Branch/Staff | Action to Comply | Due Date | Task Completed by | Task Completed on | Remarks | Mitigation for significant impacts under CEQA? |
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## ENVIRONMENTAL COMPLIANCE REVIEW

| Category | Task and Brief Description | Source | Included in PS&E package | Responsible Branch/Staff | Action to Comply | Due Date | Task Completed by | Task Completed on | Remarks | Mitigation for significant impacts under CEQA? |
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# **Appendix D** Acronyms and Abbreviations

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# Appendix D Acronyms and Abbreviations

| | |
|---|---|
| °F | Degrees Fahrenheit |
| AB | Assembly Bill |
| ACM | Asbestos-containing materials |
| ACCM | Asbestos-containing construction materials |
| ADA | Americans with Disabilities Act |
| ADI | Area of Direct Impact |
| ADL | Aerially Deposited Lead |
| ADT | Average Daily Traffic |
| AFY | Acre-foot per year |
| APE | Area of Potential Effects |
| AQMP | Air Quality Management Plan |
| ARB | Air Resources Board |
| ARNG | Department of the Army National Guard |
| AST | Aboveground Storage Tank |
| BLM | Bureau of Land Management |
| BMP | Best Management Practice |
| BSA | Biological Study Area |
| CAA | Clean Air Act |
| CARB | California Air Resources Control Board |
| CAFE | Corporate Average Fuel Economy |
| Caltrans | California Department of Transportation |
| CCAA | California Clean Air Act |
| CDCA | California Desert Conservation Area |
| CEC | California Energy Commission |
| CEQ | Council on Environmental Quality |
| CEQA | California Environmental Quality Act |
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act |
| CERFA | Community Environmental Response Facilitation Act |
| CESA | California Endangered Species Act |
| CDCA | California Desert Conservation Area |
| CDFW | California Department of Fish and Wildlife |
| cf | Cubic feet |
| CFC | chlorofluorocarbons |
| CFR | Code of Federal Regulations |

| | |
|---|---|
| $CH_4$ | Methane |
| CHP | California Highway Patrol |
| City | City of Indio |
| CNDDB | California Natural Diversity Database |
| CNPS | California Native Plant Society |
| CO | Carbon Monoxide |
| County | County of Riverside |
| CREC | Controlled Recognized Environmental Condition |
| CRHR | California Register of Historic Resources |
| CTP | California Transportation Plan |
| CVAG | Coachella Valley Association of Governments |
| CVMSHCP | Coachella Valley Multiple Species Habitat Conservation Plan |
| CVSC | Coachella Valley Stormwater Channel, also known as Whitewater |
| CVWD | Coachella Valley Water District |
| CV Link | Coachella Valley Link |
| CWA | Clean Water Act |
| dB | Decibel |
| dBA | A-Weighted Decibel |
| DPPIA | Design Pollution Prevention Infiltration Areas |
| DSA | Disturbed surface area |
| DWA | Desert Water Agency |
| EB | eastbound |
| EIC | Eastern Information Center |
| EIR | Environmental Impact Report |
| EIS | Environmental Impact Statement |
| EO | Executive Order |
| F&E | State Freeway and Express |
| FCAA | Federal Clean Air Act |
| FEMA | Federal Emergency Management Agency |
| FESA | Federal Endangered Species Act |
| FHWA | Federal Highway Administration |
| FIE | Final Inventory and Evaluation |
| FIFRA | Federal Insecticide, Fungicide, and Rodenticide Act |
| FMMP | Farmland Monitoring and Mitigation Program |
| FONSI | Finding of No Significant Impact |
| FPPA | Farmland Protection Policy Act |
| FTA | Federal Transit Administration |

| | |
|---|---|
| FTIP | Federal Transportation Improvement Program |
| FY | Fiscal Year |
| GHG | Greenhouse gases |
| $H_2S$ | Hydrogen sulfide |
| HCFC | hydro chlorofluorocarbons |
| HCM | Highway Capacity Manual |
| HHS | Department of Health and Human Services |
| HOV | High occupancy vehicle |
| Hr. | Hour |
| HREC | Historical Recognized Environmental Condition |
| HSA | Hydrologic Sub-area |
| I-10 | Interstate 10 b |
| ICE | Intersection Control Evaluation |
| IPCC | Intergovernmental Panel on Climate Change |
| ISA | Initial Site Assessment |
| IRRS | State Interregional Road System |
| IS/EA | Initial Study/Environmental Assessment |
| LBP | Lead-based paint |
| LCP | Lead-containing paint |
| LED | Light-emitting diode |
| LEDPA | Least environmentally damaging practical alternative |
| LOS | Level of Service |
| Leq | Equivalent sound level |
| LPA | Locally Preferred Alternative |
| LRA | Local Responsibility Area |
| LST | Localized Significance Threshold |
| LUST | Leaking Underground Storage Tank |
| LSEV | Low-speed electric bicycles |
| MOE | Measures of effectiveness |
| MMBtu | Millions of British Thermal Units |
| MOU | Memorandum of Understanding |
| MGD | Millions of gallons per day |
| mph | Miles per hour |
| MS4 | Multiple separate storm sewer systems |
| MPO | Metropolitan Planning Organization |
| MSAT | Mobile-source air toxics |
| $MTCO_2e$ | Metric tons of carbon dioxide equivalent |

| | |
|---|---|
| MUN | Municipal and Domestic Supply |
| NAC | Noise abatement criteria |
| NB | northbound |
| NAAQS | National Ambient Air Quality Standards |
| NAHC | Native American Heritage Commission |
| NCHRP | National Cooperative Highway Research Program Report |
| ND | Negative Declaration |
| NEPA | National Environmental Policy Act |
| NESHAP | National Emissions Standards for Hazardous Air Pollutants |
| NFIP | National Flood Insurance Program |
| NHS | National Highway System |
| NHTSA | National Highway Traffic Safety Administration |
| NMFS | National Marine Fisheries Service |
| No. | Number |
| $NO_x$ | Nitrous Oxides |
| $NO_2$ | Nitrous Dioxide |
| NOA | Naturally occurring asbestos |
| NOAA | National Oceanic and Atmospheric Administration |
| NPDES | National Pollution Discharge Elimination System |
| NPHA | National Historic Preservation Act |
| NRCS | National Resources Conservation Service |
| NRHP | National Register of Historic Places |
| NSR | Noise Study Report |
| NWI | National Wetland Inventory |
| NZE | Net-zero emissions |
| $O_3$ | Ozone |
| OC | Overcrossing |
| OHWM | Ordinary High Water Mark |
| OPR | Governor's Office of Planning and Research |
| OSHA | Occupational Safety and Health Act |
| PB | lead |
| PCB | polychlorinated biphenyls |
| PDT | Project Development Team |
| PA | Preferred Alternative |
| Pilot Program | Surface Transportation Project Delivery Pilot Program |
| PeMS | Caltrans' Freeway Performance Measurement System |
| PLM | Polarized Light Microscopy |

| | |
|---|---|
| PM | Post Mile |
| PM | Particulate Matter |
| PRC | Public Resources Code |
| RAC | Replenishment Assessment Recharge |
| RAP | Relocation Assistance Program |
| RARE | Rare, threatened, or endangered species |
| RCRA | Resource Conservation and Recovery Act |
| REC | Recognized Environmental Condition |
| RivTAM | Riverside County Traffic Analysis Model |
| ROG | Reactive Organic Gases |
| ROW | Right-of-way |
| RTP | Regional Transportation Plan |
| RSIS | Rural and Single Interstate Routing System |
| RWQCB | Colorado River Regional Water Quality Control Board |
| SB | Southbound |
| SB | Senate Bill |
| SCAG | Southern California Association of Governments |
| SCAQMD | South Coast Air Quality Management District |
| SCE | Southern California Edison |
| SCS | Sustainable Communities Strategy |
| SDC | Seismic Design Criteria |
| SED | Socio-Economic Data |
| $SF_6$ | Sulfur hexaflouride |
| SHPO | State Historic Preservation Officer |
| SIP | State Implementation Plan |
| SLF | Sacred lands file |
| SMARTS | Stormwater Multi-Application Tracking System |
| $SO_2$ | Sulfur dioxide |
| SoCalGas | Southern California Gas Company |
| SPUI | Single Point Interchange |
| SR-60 | State Route 60 |
| SRA | Source Receptor Area |
| SRA | State Responsibility Area |
| STAA | Surface Transportation Assistance Act |
| STRAHNET | Strategic Highway Corridor Network |
| SWMP | State Storm Water Management Plan |
| SWPPP | Stormwater Pollution Prevention Plan |

| | |
|---|---|
| SWRCB | California State Water Resources Control Board |
| TAC | Toxic Air Contaminant |
| TCE | Temporary construction easement |
| TCR | Transportation Concept Report |
| TCWG | Transportation Conformity Working Group |
| TMDL | Total Maximum Daily Loads |
| TMP | Traffic Management Plan |
| TeNS | Technical Noise Supplement |
| TNM | Traffic Noise Model |
| TOAR | Traffic Operations Analysis Report |
| TOPD | Traffic Operations Policy Directive |
| TRB | Transportation Research Board |
| TSCA | Toxic Substances Control Act |
| TSM | Transportation system management |
| UCMPDB | University of California Museum of Paleontology database |
| USACE | United States Army Corps of Engineers |
| USC | United States Code |
| USDOT | United States Department of Transportation |
| USEPA | United States Environmental Protection Agency |
| USFWS | United States Fish and Wildlife Service |
| USGCRP | United States Global Change Research Program |
| USGS | United States Geological Survey |
| UST | Underground Storage Tank |
| VA | Value analysis |
| WHD | Vehicle-hours-delay |
| VHFHSZ | Very high Fire Hazard Severity Zone |
| vplpm | Vehicles per lane per mile |
| VMT | Vehicle miles traveled |
| WARM | Warm Freshwater Habitat |
| WB | Westbound |
| WDID | Waste Discharge Identification |
| WDR | Waste discharge requirements |
| WILD | Wildlife Habitat |
| WPCP | Water Pollution Control Program |
| WQPT | Water Quality Planning Tool |
| WUI | Wildland-Urban Interface |

# **Appendix E** References

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# Appendix E References


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# **Appendix F** List of Technical Studies

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# Appendix F List of Technical Studies

The technical studies listed below were used as supporting documentation in the preparation of this Initial Study/Environmental Assessment. All of the technical studies listed were prepared specifically for the proposed I-10/Jackson Street Interchange Improvement Project.

- *Aerially Deposited Lead Report for Interstate 10/Jackson Interchange Project* (April 2019)
- *Asbestos and Lead Survey Report for Interstate 10/Jackson Interchange Project* (May 2019)
- *Air Quality Report for the Interstate 10/Jackson Street Interchange Project* (August 2019)
- *Combined Paleontological Identification Report and Paleontological Evaluation Report (PIR/PER) for the Interstate 10/Jackson Street Interchange Improvement Project* (November 2018)
- *District Preliminary Geotechnical Report, Interstate 10/Jackson Street Interchange Improvement Project* (April 2019)
- *Energy Analysis Report for the Interstate 10/Jackson Street Interchange Project* (April 2020)
- *Hazardous Material Assessment for the Interstate 10/Jackson Street Interchange Project* (May 2019)
- *Interstate 10/Jackson Street Interchange Project Natural Environment Study (Minimal Impacts)* (August 2019)
- *Interstate 10/Jackson Street Interchange Project Preliminary Jurisdictional Delineation Report* (February 2019)
- *Interstate 10/Jackson Street Interchange Project Historic Property Survey Report* (August 2019)
- *Interstate 10/Jackson Street Interchange Project Archaeological Survey Report* (August 2019)
- *Interstate 10/Jackson Street Interchange Project Historical Resources Evaluation Report* (August 2019)
- *Interstate 10/Jackson Street Interchange Project Area of Potential Effects Map* (August 2019)
- *Initial Site Assessment for the Interstate 10/Jackson Street Interchange Project* (September 2020)
- *Interstate 10/Jackson Street Interchange Project Noise Study Report* (June 2020)
- *Interstate 10/Jackson Street Interchange Project Location Hydraulic Study* (February 2019)
- *Interstate 10/Jackson Street Interchange Project Traffic Operations Report* (September 2019)

- *Scenic Resource Evaluation and Visual Impact Assessment for the Interstate 10/Jackson Street Interchange Project* (February 2019)

- *Water Quality Assessment Report for the Interstate 10/Jackson Street Interchange Project* (April 2019)