Interstate 10/Portola Avenue New Interchange

PALM DESERT, RIVERSIDE COUNTY, CALIFORNIA
DISTRICT 08 – RIV – 10 (PM 44.8/46.6)
EA 08-0F1200
PN 0800000112

Initial Study with Negative Declaration/Environmental Assessment with Finding of No Significant Impact

Prepared by the
State of California Department of Transportation and
the County of Riverside and the City of Palm Desert

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.

Caltrans

April 2018

General Information about This Document

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), and in cooperation with the County of Riverside (County) and the City of Palm Desert (City), has prepared this Initial Study with Negative Declaration/Environmental Assessment (IS/EA) for the proposed project located in Riverside County and the City of Palm Desert, California. Caltrans is the lead agency under both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). The document describes why the project is being proposed, which alternatives were 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. The Draft IS/EA circulated to the public for 30 days between December 4, 2017 and January 4, 2018. Comments received during this period are included in Appendix I. Elsewhere throughout this document, a vertical line in the margin indicates a change made since the draft document circulation. Minor editorial changes and clarifications have not been so indicated. Additional copies of this document and the related technical studies are available for review at the following locations and the document may be downloaded at the following website - http://rcprojects.org/portola/

City of Palm Desert
Public Works Department
Palm Desert Civic Center
73-510 Fred Waring Drive
Palm Desert, CA 92260

County of Riverside
Transportation Department
3525 14th Street
Riverside, CA 92501

Alternative Formats:
For individuals with sensory disabilities, this document can be made available in Braille, large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call 1 (951) 955-6880 or write to Riverside County, Attn: John Marcinek, County Project Manager—Riverside County Transportation Department, 3525 14th Street, Riverside, CA 92501, or use the California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice) or 711.

SCH# 2017121004
District 08-RIV-10-PM 44.8/46.6
EA 08-0F1200
PN 0800000112

Construct a new interchange on Interstate 10 (postmile 44.8 to postmile 46.6) in the City of Palm Desert in Riverside County, California

INITIAL STUDY with Negative Declaration / Environmental Assessment with Finding of No Significant Impact

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

THE STATE OF CALIFORNIA
Department of Transportation

RESPONSIBLE AGENCIES:
County of Riverside
City of Palm Desert

4/17/18
Date of Approval

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

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CALIFORNIA DEPARTMENT OF TRANSPORTATION

FINDING OF NO SIGIFICANT IMPACT

FOR

Interstate 10/Portola Avenue New Interchange Project

08-RIV-010 PM44.8/46.6

The California Department of Transportation (Caltrans) has determined that Alternative 2-Modified Partial Cloverleaf will have no significant impact on the human environment. Alternative 2 includes the construction of a modified Type L-9 partial cloverleaf on the north side of Interstate 10 (I-10) and a Type L-1 compact diamond interchange on the south side of Interstate-10. Additionally, the realignment of Varner Road near the project and the construction of a six through-lane bridge that would span the ultimate configuration of I-10 and the Union Pacific Railroad (UPRR) right of way. As part of this alternative, auxiliary lanes will be constructed between the proposed Portola Avenue interchange and the two adjacent interchanges at Monterey Avenue and Cook Street. A permanent easement would be required from UPRR to accommodate the eastbound on- and off-ramps. Four retaining walls and three structures along the eastbound ramps would be required to minimize impacts to the UPRR right of way.

This Finding of No Significant Impact (FONSI) is based on the attached Environmental Assessment (EA) and the associated Technical Studies and design documents. Which have been independently evaluated by Caltrans and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. Caltrans takes full responsibility for the accuracy, scope, and content of the attached and the associated Technical Studies and design documents.

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.

4/17/18
Date

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

SCH: 2017121004

Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The County of Riverside (County), in cooperation with the California Department of Transportation (Caltrans) and the City of Palm Desert (City), proposes to construct a new interchange on Interstate 10 (I-10) at Portola Avenue. The limits of work for this project are along I-10, approximately from post mile (PM) 44.8 to PM 46.6. The project includes the construction of a new structure crossing I-10 and the Union Pacific Railroad (UPRR), construction of associated on- and off-ramps, and the realignment of the adjacent frontage road, Varner Road. Auxiliary lanes in each direction of I-10 between the new Portola Avenue ramps and the adjacent interchanges at Cook Street and Monterey Avenue would also be constructed.

Determination

Caltrans has prepared an Initial Study for this project, and following public review, has determined from this study that the proposed project would not have a significant effect on the environment for the following reasons:

The project would have no effect on farmlands, timberlands, cultural resources, paleontological resources or wetlands.

In addition, the project would have less than significant effects to land use, recreational facilities, visual resources, floodplains, water quality, air quality, noise, natural communities, plant species, animal species, and threatened and endangered species.

David Bricker
Deputy District Director
District 8, Division of Environmental Planning
California Department of Transportation

4/17/18
Date

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Chapter 1 – Proposed Project

NEPA Assignment

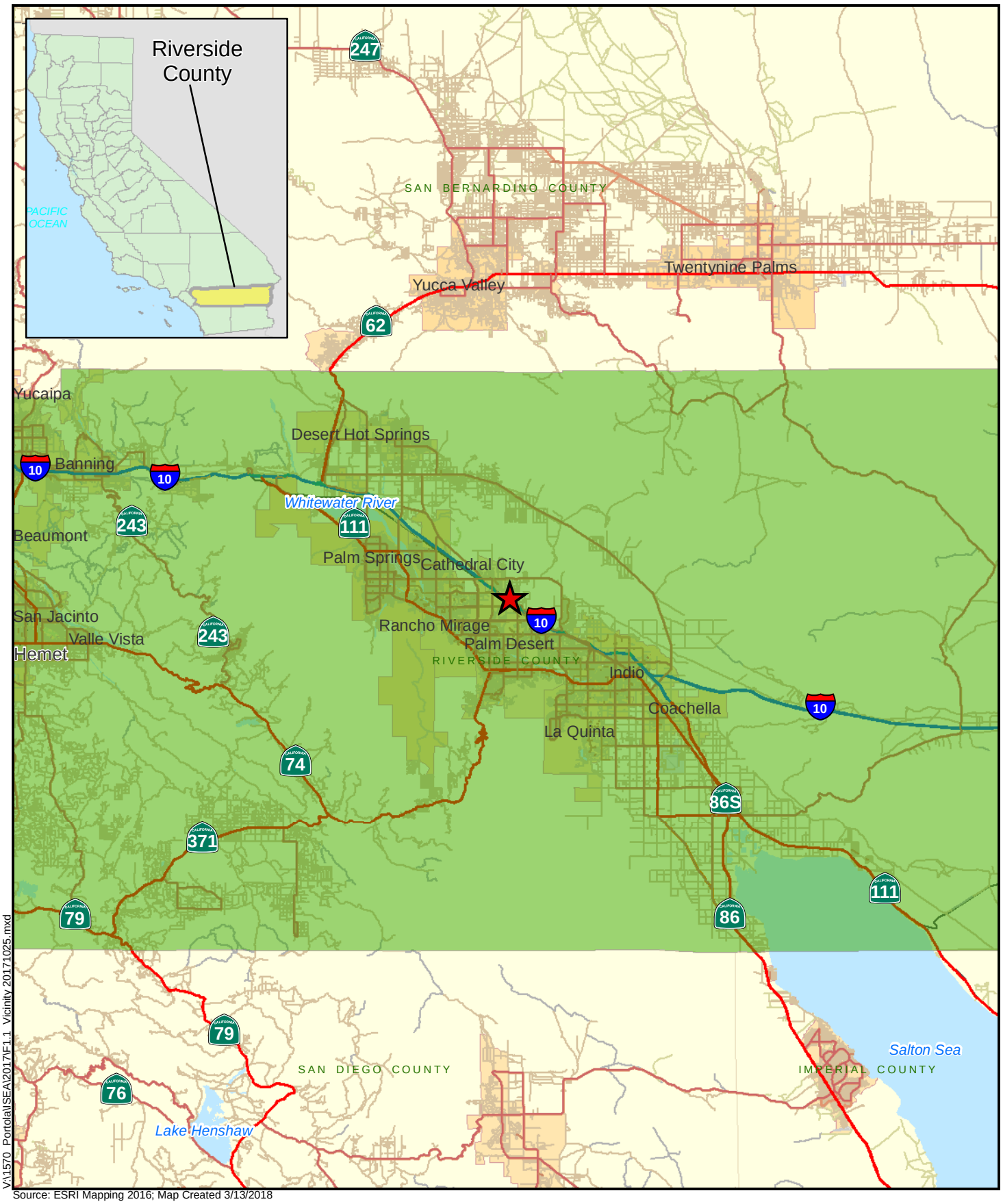
California participated in the "Surface Transportation Project Delivery Pilot Program" (Pilot Program) pursuant to 23 USC 327, for more than five years, beginning July 1, 2007, and ending September 30, 2012. MAP-21 (P.L. 112-141), signed by President Obama on July 6, 2012, amended 23 USC 327 to establish 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.

1.1 Introduction

The County of Riverside (County), in cooperation with the California Department of Transportation (Caltrans) and the City of Palm Desert (City), proposes to construct a new interchange on Interstate 10 (I-10) at Portola Avenue. The limits of work for this project are along I-10 from post mile (PM) 44.8 to PM 46.6 and include the construction of a new structure crossing I-10 and the Union Pacific Railroad (UPRR), associated on- and off-ramps, and the realignment of the adjacent frontage road, Varner Road. Figures 1.1 and 1.2 show the project vicinity and location, respectively.

I-10 is a major east-west freeway that begins at State Route 1 in Santa Monica, CA and terminates at Interstate 95 in Jacksonville, FL. The route varies from two to four lanes in each direction within Riverside County. I- 10 provides interstate and interregional movement of people and goods within the Counties of Los Angeles, San Bernardino, and Riverside. Travelers using the route typically consists of commuter, commercial, and recreational vehicles. Considerable development and the resulting increase in traffic in the Coachella Valley and in the City of Palm Desert led to the initiation of a new connection to I-10. Portola Avenue is classified as an arterial within the General Plan of the City of Palm Desert. The City's General plan also identifies Portola Avenue as the location for a new connection.

The existing facilities within the project area include transportation facilities such as I-10, the UPRR tracks, Varner Road, and Dinah Shore Drive. In the project area, I-10 is a six-lane divided freeway with three twelve-foot lanes in the eastbound and westbound directions. Varner Road is a local County maintained two-lane collector on the north side of I-10, with connections to the Monterey Avenue and Cook Street Interchanges, west and east of Portola Avenue respectively. Portola Avenue is an existing north-south four-lane roadway that currently ends at Dinah Shore Drive in the City of Palm Desert. Dinah Shore Drive is an existing east-west four-lane roadway just south of I-10. There is also commercial development between I-10 and Dinah Shore Drive with office buildings and a mix of retail and service businesses. A new mixed use development

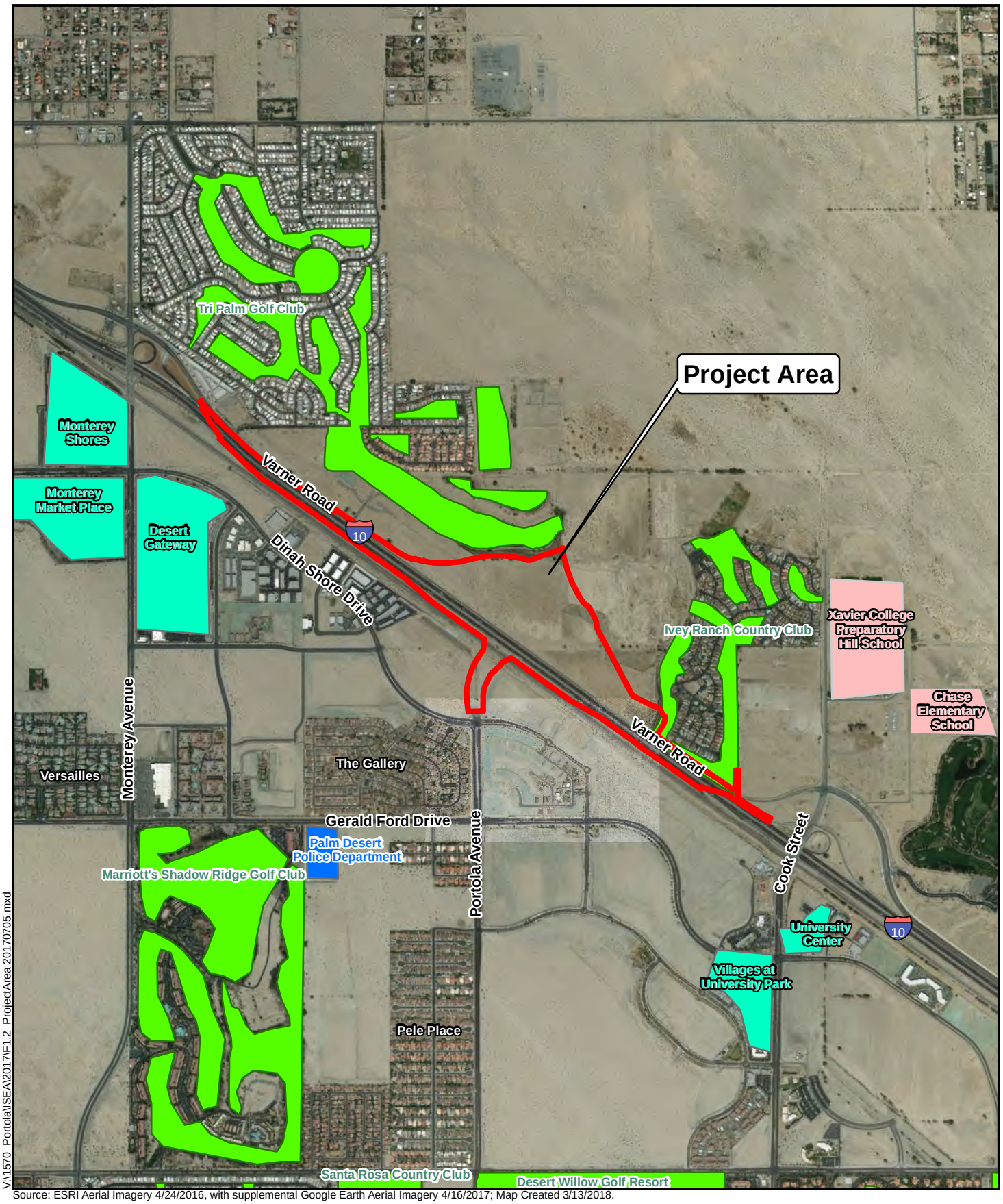


V:\11570_Portola\SEA\2017\F1.1_Vicinity 20171025.mxd

Source: ESRI Mapping 2016; Map Created 3/13/2018

0 10 20 Miles

FIGURE 1.1
Project Vicinity



V:\1570_Portola\SEA\2017\F1.2_ProjectArea 20170705.mxd

Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

0 0.25 0.5 0.75 1 Miles

FIGURE 1.2
Project Area

is underway south of I-10 and east of Portola Avenue in the City of Palm Desert. Several golf courses are located outside of, but nearby the project area.

This project is included in the Southern California Association of Governments (SCAG) 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016-2040 RTP/SCS), and the 2017 Federal Transportation Improvement Program (2017 FTIP). In both documents the project is identified by its project number RIV031209.

Caltrans is the lead agency under the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). The City and County are the project proponents.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the project is to:

- Reduce existing and forecasted traffic congestion on Monterey Avenue and Cook Street intersections near I-10.
- Improve traffic operations at the I-10/Monterey Avenue Interchange and the I-10/Cook Street Interchange.
- Provide a balanced circulation system and reduce out of direction travel.
- Help achieve the goals of the SCAG RTP.
- Accommodate planned infrastructure improvements within the project vicinity and provide a facility consistent with existing and planned local development, the County of Riverside General Plan Circulation Element and the City of Palm Desert Comprehensive General Plan Circulation Element.

1.2.2 Need

The project is needed because the existing I-10/Monterey Avenue Interchange and I-10/Cook Street Interchange cannot accommodate forecasted travel demand without additional I-10 access. Currently, the I-10/Monterey Avenue and I-10/Cook Street Interchanges provide the primary access from I-10 to the City of Palm Desert and the unincorporated community of Thousand Palms in Riverside County, as well as portions of the cities of Rancho Mirage and Indian Wells. As traffic demands in the region increase, level of service on local roads as well as the I-10 freeway, are expected to decline to levels below acceptable according to City, County, and Caltrans standards. The interchanges at I-10/Monterey Avenue and I-10/Cook Street would be the most affected by growing congestion.

Capacity, Transportation Demand and Safety

According to the US Census Records, the City of Palm Desert along with the Coachella Valley region is one of the fastest-growing regions in California. The existing I-10 interchanges at Monterey Avenue and at Cook Street cannot accommodate forecasted travel demand and meet level of service goals without additional I-10 access. Without such additional access, travel demand is focused onto the two arterials with direct freeway access, and the capacity of those

arterials would be exceeded (Traffic Operations Analysis, 2009, Traffic Volume Validation Report, 2015).

The forecast deficiencies at the Monterey Avenue and Cook Street interchanges would have adverse impacts to I-10 and to regional traffic flow. If the off-ramp interchanges fail, traffic exiting the freeway would extend the length of the off-ramps, and ultimately block through travel lanes (Traffic Operations Analysis, 2009, Traffic Volume Validation Report, 2015). These types of operational failures are expected to occur by 2020.

The following table and discussion of the existing and future traffic conditions is from the Traffic Operations Analysis Report prepared for the project in 2009 and revised in 2015. The study indicates that both the existing interchanges and approaching roadways are reaching their design capacity and will exceed their capacity within the next 20 years. Table 1.1 shows the AM and PM peak hour forecast and level of service (LOS) for the mixed flow lanes along the I-10 in the vicinity of the interchange.

As shown in Tables 1.1 and 1.2, traffic studies prepared for this project indicate that both the existing interchanges and approaching roadways are reaching their design capacity, and they would exceed their capacity within the next 20 years. Without the proposed project, the following intersections would operate at an unacceptable LOS in the year 2020:

- Monterey Avenue/Gerald Ford Drive (LOS F in the PM Peak Hour)
- Cook Street/Varner Road (LOS F in PM Peak Hour)

By the design year 2040, the situation is forecast to worsen with the following intersections operating at an unacceptable LOS:

- Monterey Avenue/Varner Road (LOS F in both the AM and PM Peak Hour)
- Monterey Avenue/Dinah Shore Drive (LOS F in both the AM and PM Peak Hour)
- Monterey Avenue/Eastbound I-10 ramps (LOS F in PM Peak Hour)
- Monterey Avenue/Gerald Ford Drive (LOS F in both the AM and PM Peak Hour)
- Cook Street/Varner Road (LOS F in both the AM and PM Peak Hour)

Table 1.1: I-10 Mainline Peak Hour Volumes and LOS

	Freeway Segment	Peak Hour	2015	2020			2040		
			Baseline Conditions	No Build	Alt 2	Alt 3	No Build	Alt 2	Alt 3
			LOS/Volume	LOS/Volume*			LOS/Volume*		
Westbound	East of Cook Street Off-Ramp	AM	D/5,495	D/5,830	D/5,830	D/5,830	**F/9,732**	**F/9,732**	**F/9,732**
		PM	D/5,879	**F/6,564**	**F/6,564**	**F/6,564**	E/8,344	E/8,344	E/8,344
	Cook Street Off-Ramp to Cook Street Loop On Ramp (Lane Addition)	AM	C/4,956	D/4,975	D/5,468	D/5,468	**F/8,688**	**F/9,538**	**F/9,538**
		PM	D/5,471	D/5,684	E/6,172	E/6,172	D/7,168	E/7,911	E/7,911
	Cook Street Loop On-Ramp (Lane Addition) to Cook Street Slip On-Ramp	AM	C/5,850	C/5,224	C/5,802	C/5,802	D/9,043	E/9,893	E/9,893
		PM	C/6,027	C/6,199	D/6,687	D/6,687	C/7,697	D/8,440	D/8,440
	Cook Street Slip On-Ramp to Lane Drop	AM	C/4,874	C/5,558	NA	NA	D/9,485	NA	NA
		PM	C/6,057	C/6,239	NA	NA	C/7,750	NA	NA
	Lane Drop to Monterey Avenue Off-Ramp	AM	D/5,874	D/5,558	NA	NA	**F/9,485**	NA	NA
		PM	E/6,057	E/6,239	NA	NA	D/7,750	NA	NA
	Cook Street Slip On-Ramp to Portola Avenue Off-Ramp	AM	NA	NA	C/6,052	C/6,052	NA	E/10,335	E/10,335
		PM	NA	NA	C/6,727	C/6,727	NA	D/8,493	D/8,493
	Portola Avenue Off-Ramp to Portola Avenue Loop On-Ramp (Lane Addition)	AM	NA	NA	D/5,360	D/5,360	NA	**F/9,085**	**F/9,085**
		PM	NA	NA	E/6,039	E/6,039	NA	D/7,251	D/7,251
	Portola Avenue On-Ramp to Monterey Avenue Off-Ramp	AM	NA	NA	C/5,526	NA	NA	D/9,389	NA
		PM	NA	NA	C/6,261	NA	NA	C/7,652	NA
	Portola Avenue Loop On-Ramp (lane addition) to Monterey Avenue Off-Ramp	AM	NA	NA	C/5,576	C/5,576	NA	D/9,478	D/9,478
		PM	NA	NA	C/6,339	C/6,339	NA	C/7,791	C/7,791
	Monterey Avenue Off-Ramp to Monterey Avenue On-Ramp	AM	C/4,117	C/4,749	D/4,967	D/4,967	E/8,529	**F/8,913**	**F/8,913**
		PM	D/5,469	D/5,347	D/5,645	D/5,645	D/6,516	D/7,057	D/7,057
	Monterey Avenue On-ramp to Monterey Avenue Slip On-Ramp	AM	NA	C/5,549	C/5,549	C/5,549	**F/9,749**	**F/9,749**	**F/9,749**
		PM	NA	D/6,474	D/6,474	D/6,474	E/8,052	E/8,055	E/8,055
	West of Monterey Avenue Slip On-Ramp	AM	NA	NA	C/5,596	C/5,596	NA	**F/9,801**	**F/9,801**
		PM	NA	NA	D/6,539	D/6,539	NA	E/8,109	E/8,109
	West of Monterey Avenue On-Ramp	AM	C/4,507	C/5,596	NA	NA	F/9,801	NA	NA
		PM	C/6,320	D/6,539	NA	NA	E/8,109	NA	NA

Table 1.1: I-10 Mainline Peak Hour Volumes and LOS (continued)

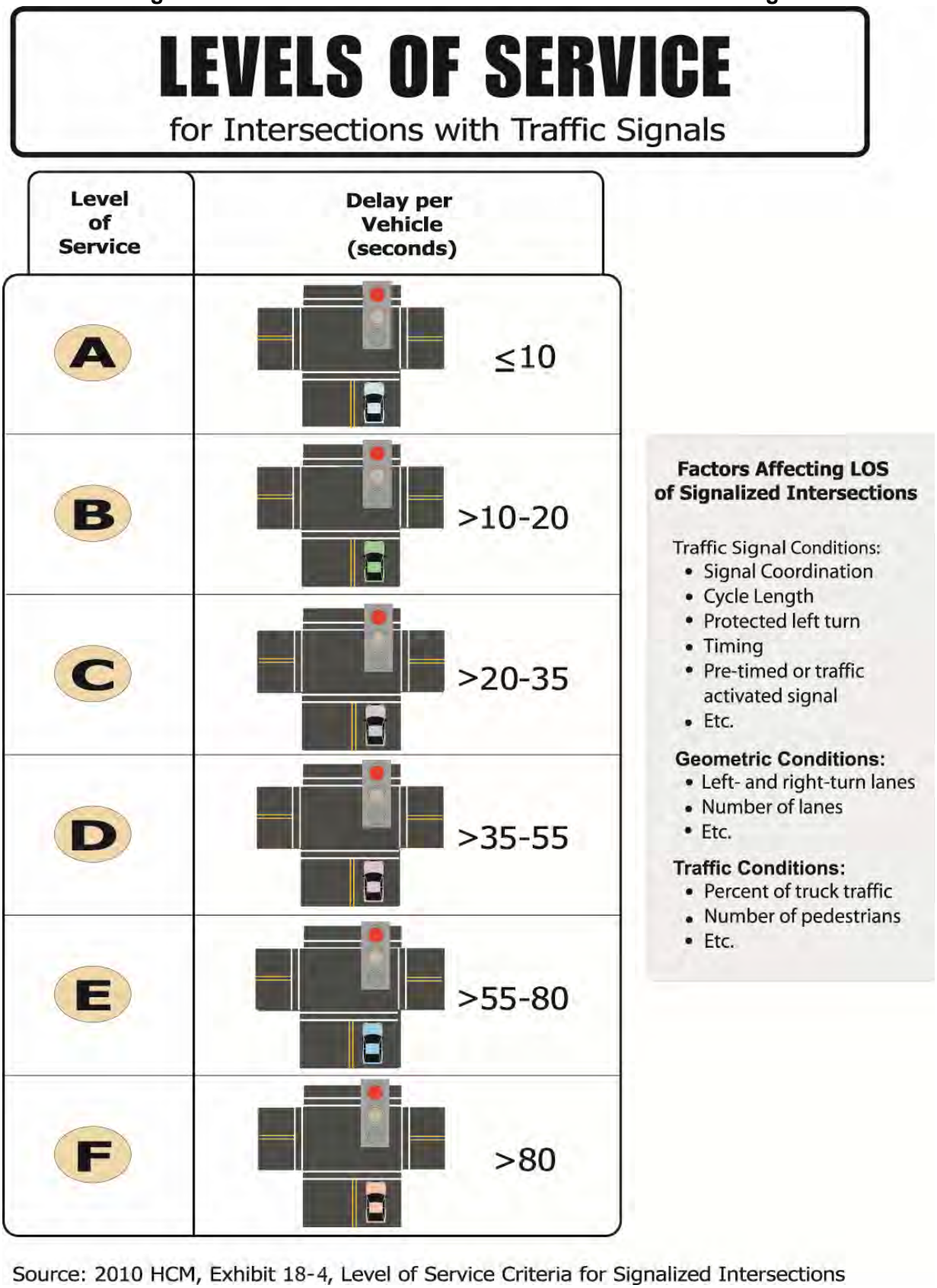
	Freeway Segment	Peak Hour	2015	2020			2040		
			Baseline Conditions	No Build	Alt 2	Alt 3	No Build	Alt 2	Alt 3
			LOS/Volume	LOS/Volume*			LOS/Volume*		
Eastbound	West of Monterey Avenue Off-Ramp	AM	C/6,101	C/6,663	D/6,663	D/6,663	D/7,204	D/7,204	D/7,204
		PM	B/4,289	C/5,720	C/5,720	C/5,720	**F/8,896**	**F/8,896**	**F/8,896**
	Monterey Avenue Off-Ramp to Lane Drop	AM	C/4,875	C/5,963	C/6,106	C/6,106	D/6,493	D/6,760	D/6,760
		PM	B/3,487	C/4,842	C/5,051	C/5,051	D/7,728	E/8,090	E/8,090
	Lane Drop to Monterey Avenue On-Ramp	AM	D/4,875	E/4,963	E/6,106	E/6,106	NA	D/6,760	D/6,760
		PM	C/3,487	D/4,842	D/5,051	D/5,051	NA	E/8,090	E/8,090
	Monterey Avenue On-Ramp (Lane Addition) to Portola Avenue Off-Ramp	AM	D/5,739	**F/7,173**	D/7,008	D/7,008	E/8,078	C/7,943	C/7,943
		PM	D/4,863	E/6,244	C/6,142	C/6,142	F/9,699	D/9,560	D/9,560
	Portola Avenue Off-Ramp to Portola Avenue On-Ramp	AM	NA	NA	**F/6,797**	**F/6,797**	NA	D/7,561	D/7,561
		PM	NA	NA	D/5,842	D/5,842	NA	**F/9,019**	**F/9,019**
	Portola Avenue On-Ramp to Cook Street Off-Ramp	AM	NA	NA	D/7,158	D/7,158	NA	D/8,211	D/8,211
		PM	NA	NA	C/6,199	C/6,199	NA	D/9,665	D/9,665
	Cook Street Off-Ramp to Cook Street On Ramp	AM	D/5,104	E/6,410	E/6,463	E/6,463	D/7,272	D/7,490	D/7,490
		PM	C/4,406	D/5,438	D/5,484	D/5,484	E/8,643	F/8,788	F/8,788
	East of Cook Street On-Ramp	AM	D/5,478	**F/6,828**	**F/6,828**	**F/6,828**	E/7,887	E/7,887	E/7,887
		PM	D/4,966	E/5,963	E/5,963	E/5,963	**F/9,281**	**F/9,281**	**F/9,281**

Source: Traffic Operations Analysis, 2009, Traffic Volume Validation Report, revised 2015
*Volumes are shown as "Peak Hour Passenger Car Equivalent"
Notes: 1) Source is the 2009 Traffic Operations Analysis, updated 2015. Table shows 2020 construction and 2040 design year, revalidated from the original 2015 and 2035 analysis respectively.

The existing I-10 interchanges at Monterey Avenue and Cook Street currently have high Average Daily Traffic (ADT) volumes that are projected to more than double by the year 2030. By the year 2040, nearly every facility in the project area would operate unacceptably at LOS F if proposed improvements are not implemented.

The City of Palm Desert strives to provide optimum roadway operating conditions while controlling the costs of building and maintaining infrastructure to assure those conditions. As shown in Figures 1.3 and 1.4, LOS C is considered the desirable and optimal level of traffic volume on any local street, and continues to be the goal in Palm Desert. However, as traffic volumes increase, LOS C represents a standard that is progressively more difficult and costly to achieve in urban areas. For peak operating periods, LOS D is considered the generally acceptable service level. Exceedance of the City's LOS C goal is only acceptable where maximum feasible intersection improvements have been implemented. Implementation of the proposed new interchange at Portola Avenue would redirect trips away from the already constrained interchanges at Monterey Avenue and Cook Street and would improve LOS on local Palm Desert and County Roads in and around the project area (Traffic Operations Analysis, 2009, Traffic Volume Validation Report, 2015).

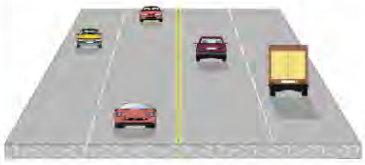
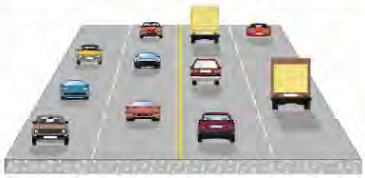
Figure 1.3: Levels of Service for Intersections with Traffic Signals



Source: 2010 HCM, Exhibit 18-4, Level of Service Criteria for Signalized Intersections

Figure 1.4: Levels of Service for Multi-Lane Highways

LEVELS OF SERVICE
for Multi-Lane Highways

Level of Service	Flow Conditions	Operating Speed (mph)	Technical Descriptions
A		60	Highest level of service. Traffic flows freely with little or no restrictions on maneuverability. **No delays**
B		60	Traffic flows freely, but drivers have slightly less freedom to maneuver. **No delays**
C		60	Density becomes noticeable with ability to maneuver limited by other vehicles. **Minimal delays**
D		57	Speed and ability to maneuver is severely restricted by increasing density of vehicles. **Minimal delays**
E		55	Unstable traffic flow. Speeds vary greatly and are unpredictable. **Minimal delays**
F		<55	Traffic flow is unstable, with brief periods of movement followed by forced stops. **Significant delays**

Source: 2000 HCM, Exhibit 21-3, Speed-Flow Curves with LOS Criteria for Multi-Lane Highways

Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State Highway facilities. Caltrans acknowledges that this may not always be feasible and accordingly reviews on a project level basis the applicable target LOS. The I-10 District System Management Plan (Caltrans, 2017) indicates that a minimum target of LOS E should be maintained for the urbanized and urbanizing areas in Segments 1-14. The proposed Portola Avenue New Interchange Project is located in Segment 10. Caltrans generally accepts LOS E as acceptable for peak hour freeway operations in urban areas at ramp merge/diverge points. Implementation of the proposed new interchange at Portola Avenue would redirect trips away from the already congested interchanges at Monterey Avenue and Cook Street and would improve LOS on I-10 (Traffic Operations Analysis, 2009, Traffic Volume Validation Report, 2015).

The 2009 Traffic Operations Analysis and 2015 Traffic Volume Validation Report analyzed the following project alternatives:

- Alternative 1 – No Build
- Alternative 2 – Modified Partial Cloverleaf
- Alternative 3 – Modified Single Quadrant Cloverleaf

As depicted in Table 1.2, for the baseline conditions, all of the existing intersections operate at an acceptable LOS for peak hour freeway operations in urban areas at ramp merge/diverge points, as measured in time of delay which is the average seconds per vehicle at each intersection.

In 2020, the year the project is scheduled to be completed, if the project is not built, all intersections would still operate at an acceptable LOS for peak hour freeway operations in urban areas at ramp merge/diverge points with the exception of the Monterey Avenue/Gerald Ford Drive intersection during PM peak hour and the Cook Street/Varner Road intersection during PM peak hour.

In 2040, the design horizon year for the project, if the project is not built, five of the existing intersections would operate at an unacceptable LOS F. Monterey Avenue/Varner Road, Monterey Avenue/Dinah Shore Drive, Monterey Avenue/Gerald Ford Drive, and Cook Street/Varner Road would operate at LOS F in both the AM and PM peak hours. The Monterey Avenue/I-10 EB Ramps intersection would operate at LOS F in the PM peak hours. Regarding the duration of delays, all of the vehicles would experience an average delay in excess of two minutes at each of the above identified intersections. Further, as indicated in Table 1.2 Monterey Avenue/Varner Road, Monterey Avenue/Dinah Shore Drive, Monterey Avenue/Gerald Ford, and Cook Street/Varner Road intersections all of the vehicles would experience an average delay approaching or exceeding four minutes in the PM peak hour. The delay per vehicle at the Cook Street/Varner Road intersection in the PM peak hour would exceed 5 minutes.

Table 1.2: Intersection Operations Without Project

Intersection	Peak Hour	2015	2020			2040		
		Baseline Conditions	No Build	Alt 2	Alt 3	No Build	Alt 2	Alt 3
		LOS-Delay	LOS-Delay	LOS-Delay	LOS-Delay	LOS-Delay	LOS-Delay	LOS-Delay
Monterey Avenue/ Varner Road	AM PM	B/16.9 B/17.3	D/45.4 D/41.5	C/33.2 D/46.3	C/33.2 D/46.3	**F/121.6** **F/231.5**	D/43.8 **F/96.8**	D/43.8 **F/96.8**
Monterey Avenue/ I-10 WB Ramps	AM PM	C/25.2 C/29.1	***Intersection Removed***					
Monterey Avenue/ I-10 EB Ramps	AM PM	C/30.3 B/19.6	C/21.7 C/26.5	B/14.8 B/13.7	B/14.8 B/13.7	D/43.6 **F/124.6**	B/12.8 C/23.6	B/12.8 C/23.6
Monterey Avenue/ Dinah Shore Drive	AM PM	C/23.0 E/77.3	D/39.6 E/77.4	C/32.5 E/51.2	C/32.5 E/51.2	**F/135.5** **F/217.9**	**F/83.7** **F/150.2**	**F/83.7** **F/150.2**
Monterey Avenue/ Gerald Ford Drive	AM PM	C/26.2 C/26.8	D/53.2 **F/88.8**	D/40.6 E/51.5	D/40.6 E/51.5	**F/161.3** **F/267.5**	**F/80.4** **F/124.5**	**F/80.4** **F/124.5**
Portola Avenue/ Varner Road	AM PM	N/A	N/A	B/15.5 B/18.4	B/15.5 B/18.4	N/A	B/19.9 C/25.0	B/19.9 C/25.0
Portola Avenue/I-10 WB Ramps	AM PM	N/A	N/A	B/11.0 A/9.7	B/16.5 B/12.5	N/A	B/10.7 A/9.8	B/18.3 B/19.4
Portola Avenue/I-10 EB Ramps	AM PM	N/A	N/A	A/7.6 A/9.2	B/11.1 A/9.8	N/A	B/14.4 B/19.3	B/16.5 C/20.0
Portola Avenue/ Dinah Shore Drive	AM PM	N/A	B/15.8 B/17.4	C/29.6 D/37.9	C/27.4 D/40.1	B/16.6 B/17.7	D/39.6 D/39.7	D/35.2 D/40.6
Portola Avenue/ Gerald Ford Drive	AM PM	C/32.8 C/30.8	C/27.4 C/25.5	C/26.4 C/25.9	C/26.4 C/25.9	C/28.5 D/46.3	D/45.7 D/43.0	D/45.7 D/43.0
Dinah Shore Drive/ Gerald Ford Drive	AM PM	N/A	C/26.9 C/24.6	C/20.6 C/20.7	C/20.6 C/20.7	C/24.9 C/20.9	C/20.6 B/19.4	C/20.6 B/19.4
Cook Street/ Varner Road	AM PM	B/12.8 B/14.3	E/70.2 **F/92.1**	D/47.1 E/72.6	D/47.1 E/72.6	**F/235.8** **F/316.3**	**F/167.9** **F/251.2**	**F/167.9** **F/251.2**
Cook Street/I-10 WB Ramps	AM PM	D/47.8 B/15.4	B/15.4 B/16.9	B/14.5 B/14.0	B14.5 B/14.0	B/14.8 B/14.2	A/6.4 B/11.8	A/6.4 B/11.9
Cook Street/I-10 EB Ramps	AM PM	B/17.9 B/10.8	C/21.1 B/19.6	B/19.6 B/19.4	B/19.6 B/19.4	C/23.0 C/31.1	B/19.9 C/25.9	B/19.9 C/25.9
Cook Street/ Gerald Ford Drive	AM PM	C/27.9 B/19.7	C/26.6 C/33.6	C/26.7 C/31.7	C/26.7 C/31.7	C/33.2 D/54.9	C/31.0 D/40.0	C/31.0 D/40.0
I-10 WB Ramps/ Varner Road at Monterey Avenue	AM PM	N/A	B/16.8 C/30.4	B/17.1 C/20.3	B/17.1 C/20.3	D/42.0 C/23.2	B/18.4 C/26.2	B/18.4 C/26.2

Source: Traffic Operations Analysis, 2009, Traffic Volume Validation Report, 2015

Notes: 1) Source is the 2009 Traffic Operations Analysis, Revalidated 2015. Table shows 2020 construction and 2040 design year, revalidated from the original 2015 and 2035 analysis respectively.
2) Delay is provided in average seconds per vehicle at each intersection.

In the 2020 and 2040 analysis (shown in Table 1.2), the delay and LOS for Alternative 2 and Alternative 3 are similar. In 2020, with one of the build alternatives, 13 of the 16 intersections would operate at an acceptable LOS D or better, with only two intersections at LOS E in the peak hour. The intersections at Monterey Avenue/Gerald Ford Drive and Cook Street/Varner Road would be improved from a LOS F under the No-Build Alternative. In 2040, with either build alternative, 11 of the 16 intersections would operate at an acceptable LOS D or better with five intersections operating at LOS F. In spite of the projected low level of service, these five intersections would operate substantially better with this project when operations are considered in terms of actual delay. For example, the intersection at Monterey Avenue/Gerald Ford Drive would be improved from about four minutes of delay per vehicles to only two minutes of delay per

vehicle. Although the delay still warrants a LOS F rating, vehicles moving through these key intersections would realize a substantial improvement with the project compared to without it in the 2040 design year conditions.

The analysis for the “No Build” scenario includes the improvements to Varner Road and Monterey Avenue, which are not a part of this project. Even with these improvements, five of the intersections are projected to operate at an unsatisfactory LOS by 2040. Both of the proposed Build Alternatives show improvement over the 2040 “No Build” scenario, with four of the intersections failing rather than five. Even though these four intersections are failing, either build alternative vastly improves the intersection delay times, which are about half of the delay times of the failing intersections of the “No Build” scenario. The project, regardless of build alternative, reduces delays at almost all of the studied intersections.

Generally, the inclusion of the I-10/Portola Avenue New Interchange Project improves the mainline LOS. More than 80% of the mainline would benefit in capacity and decreased trip times with Build Alternatives 2 and 3. There are three segments, in each direction, which show minor degradation of the LOS. These segments are; the three WB segments from the Cook Street off-ramp to the lane drop west of the Cook Street slip on-ramp, the two EB segments from the Monterey Avenue off-ramp to the Monterey Avenue on-ramp, and the EB segment from the Cook Street off-ramp to the Cook Street on-ramp. These segments experience increases in mainline volumes in the “With Project” alternatives due to the redistribution of traffic from the adjacent interchanges. Westbound I-10 traffic with a trip destination near or along Portola would not exit at Cook in the “With Project” alternatives. Instead, drivers would remain on the freeway to exit at Portola, nearer to their destination. Likewise, eastbound I-10 traffic would remain on the freeway beyond Monterey to exit at Portola, nearer to their intended destination. These segments account for less than 20% of the mainline affected by the project, while the remaining segments would benefit in the “With Project” alternatives.

For Alternatives 2 and 3, six freeway segments during the AM peak hour and six freeway segments during the PM peak hour in 2040 will operate at an unsatisfactory LOS. However, in comparison with the “No Build” freeway segment analysis, the proposed project, regardless of the alternative, improves the operation of the freeway segments between Monterey Avenue and Cook Street. The 2040 analysis assumes that the freeway would be widened to the ultimate cross-section as described above. In 2040, all the segments would operate at a satisfactory level of service regardless of alternative selected. Due to the similarity in configuration between the alternatives, there is very little difference in level of service of the freeway segments. In comparison with the “No Build” freeway segment analysis, the proposed project, regardless of alternative, does not substantially impact freeway operations at the adjacent interchanges.

For the 2040 calculations, it was assumed that the freeway was widened to the ultimate cross section as presented in the District System Management Plan for I-10, dated June 2017. This report indicated that the route concept for I-10 through 2035 is to maintain LOS D for all segments of I-10 within District 8. Currently, I-10 through the project area is a six-lane freeway with LOS E or better. The I-10 District System Management Plan designates the ultimate transportation corridor as a 10-lane freeway consisting of eight mixed flow and two high-occupancy vehicle lanes/managed lanes. The I-10 District System Management Plan states that the improvements necessary to maintain LOS D through 2035 require that one mixed-flow lane be added in each direction in the area of the proposed project. The proposed project is compatible with future planning for this interstate.

Additional results of the analysis show that in 2040 for all segments in common between Alternative 2 and Alternative 3, the LOS would be identical. As shown in Table 1.2, for Alternatives 2 and 3, six freeway segments during the AM peak hour and six freeway segments during the PM peak hour in 2040 would operate at an unsatisfactory LOS. However, in comparison with the "No Build" freeway segment analysis, the proposed project, regardless of the alternative, improves the operation of the freeway segments between Monterey Avenue and Cook Street.

The existing and future 20-year traffic forecasts in the project study area have concluded that a new interchange on I-10 at the extension of Portola Avenue is essential to reduce congestion at the existing adjacent Monterey and Cook interchanges and would not impact freeway operations.

Traffic Accident Analysis

An accident analysis was performed based on the Traffic Accident Surveillance and Analysis System (TASAS) records on file at Caltrans for the segments I-10 PM 44.20/44.80 (I-10/Monterey Avenue Interchange), I-10 PM 44.80/46.60 (proposed I-10/Portola Avenue New Interchange), and I-10 PM 46.68/47.20 (I-10/Cook Street Interchange). The TASAS accident data was reviewed for a 3-year period, from September 1, 2012 through August 31, 2015. Table 1.3, provides a summary of these accidents.

At the existing Monterey Avenue Interchange, five out of the six ramp movements have accident rates that are higher than the statewide average for similar types of facilities.

Within the immediate vicinity of the proposed Portola Avenue New Interchange, accident rates for the eastbound I-10 are slightly lower than the state average for similar types of facilities and slightly higher on the westbound I-10.

At the existing Cook Street Interchange, two out of the five ramp movements have accident rates that are higher than the statewide average for similar types of facilities.

Both the Cook Street Interchange and the Monterey Avenue Interchange currently have some ramps which have higher accident rates than the statewide average.

Social Demands or Economic Development

<u>City of Palm Desert</u>

The City's November 2016 General Plan includes land use designations in this area that are largely consistent with those of Riverside County, with limited exceptions along Interstate-10 and the eastern portion of Thousand Palms. According to the Land Use Element of the City of Palm Deserts' current General Plan, most of the area south of the project vicinity within the City of Palm Desert includes Planned Residential-Planned Community Development, Service Industrial, and Planned Commercial as identified in Section 2.1.1.1 Existing and Future Land Use, Figure 2.1 City of Palm Desert Planned Land Uses. Most of the vacant land within the City corporate limits is comprised of small to moderate size holdings, where in-fill development has been occurring over the past two decades. The City's business park development area, which has also provided service commercial and light industrial uses, is located primarily along the Cook Street Corridor, extending from the Whitewater River to Hovley Lane.

Table 1.3: TASAS Accident Rates (September 2012 to August 2015)

Segment		Actual			Average		
		Fatal	Fatal + Injury	Actual Total	Fatal	Fatal + Injury	Average Total
Monterey Ave	I-10 EB in the vicinity of Monterey Ave (PM 44.20 to 44.80)	0.000	0.18	0.72	0.003	0.17	0.52
	I-10 WB in the vicinity of Monterey Ave (PM 44.20 to 44.80)	0.000	0.18	0.50	0.003	0.17	0.52
	WB On-ramp from Monterey Ave (PM 44.277)	0.000	0.23	1.27	0.002	0.22	0.63
	EB Off-ramp to Monterey Ave (PM 44.345)	0.000	0.56	4.24	0.003	0.35	1.01
	WB Off-ramp to Monterey Ave (PM 44.699)	0.000	0.56	2.01	0.003	0.35	1.01
	EB On-Ramp from Monterey Ave (PM 44.745)	0.114	0.46	2.29	0.002	0.22	0.63
Portola Ave	I-10 EB in the vicinity of Portola Ave (PM 44.80 to 46.60)	0.013	0.11	0.45	0.004	0.18	0.55
	I-10 WB in the vicinity of Portola Ave (PM 44.80 to 46.60)	0.000	0.20	0.63	0.004	0.18	0.55
Cook St	I-10 EB in the vicinity of Cook St (PM 46.68 to 47.20)	0.000	0.15	0.48	0.008	0.21	0.58
	I-10 WB in the vicinity of Cook St (PM 46.68 to 47.20)	0.000	0.15	0.37	0.008	0.21	0.58
	EB Off-Ramp to Cook St (PM 46.708)	0.000	0.37	1.34	0.007	0.34	1.04
	WB On-ramp from SB Cook St (PM 46.736)	0.000	0.00	0.00	0.004	0.18	0.53
	WB On-ramp from NB Cook St (PM 46.918)	0.000	0.16	0.16	0.011	0.19	0.65
	EB On-ramp from Cook St (PM 47.082)	0.000	1.02	1.63	0.004	0.17	0.53
	WB Off-ramp to Cook St (PM 47.135)	0.000	0.37	0.93	0.007	0.34	1.04

Note: Accident rates on freeway segments expressed as number of accidents / million vehicle miles.
Accident Rates on ramp segments expressed as number of accidents / million vehicles.
Source: Caltrans TASAS April 2017

Initially, this area included service commercial and light industrial uses, but has evolved into an integrated business parks supporting a wide range of business and development services. Expanses of vacant land within the City and available for coordinated master planning and development are now limited primarily to the northern portions of the City in the University Park planning area. University Park extends south of the US Interstate-10/Union Pacific Railroad corridor and is bounded on the east by Cook Street, on the west by Monterey Avenue and on the south by Frank Sinatra Drive. Major influences on future development include the Palm Desert campus of the California State University, residential resort development to the south, and regional commercial development in the vicinity of the I-10 interchanges. The City's General Plan includes no specific discussion on growth management.

County of Riverside

Riverside County adopted their current General Plan in February of 2012. At present, within the Western Coachella Valley Area Plan the majority of urban development is within the cities, with the exception of several communities and rural enclaves. In proximity to the proposed project, existing residential developments include Thousand Palms and Bermuda Dunes. The Thousand Palms area is located along Interstate 10 at the intersection of Ramon Road. This unincorporated area is characterized by mobile home subdivisions, single-family residential neighborhoods and rural residential development. Commercial and industrial developments are located along Ramon Road and Varner Road. Tourist-oriented commercial uses such as truck stops, motels, and fast-food restaurants are located at the interchanges of Interstate 10 with Ramon Road and, to a lesser extent, Monterey Avenue. The Bermuda Dunes Area includes the area north of Interstate 10 which features Sun City Palm Desert, a senior citizen residential community, mobile home subdivisions, rural residential uses, agricultural areas, a recreational vehicle park, an industrial park, and Fringe-toed Lizard habitat. The Western Coachella Valley Area Plan proposes a mix of lower density residential land uses ranging from Rural Residential to Medium Density Residential uses near urban centers, except along Washington Street and Avenue 42 in Bermuda Dunes, which will continue to provide for areas of High Density Residential development. Ample land exists cumulatively within Coachella Valley cities to accommodate most of the residential and commercial growth through the year 2020. The land use Plan focuses Community Development land uses, including residential, commercial and industrial uses, along Interstate 10 and the Pierson Boulevard and Dillon Road corridors, while maintaining a mix of urban uses in Bermuda Dunes, Thousand Palms, and the area north of Interstate 10 in the vicinity of Sun City Palm Desert.

The County's General Plan and the Western Coachella Valley Area Plan includes no specific discussion on growth management.

Modal Interrelationships and System Linkages

The proposed project will not directly interface with existing airport, port, and mass transit facilities due to a lack of these facilities in the immediate area. The project would bridge over the existing UPRR tracks located just south of I-10 but would not provide any direct connection between the proposed roadway facilities and the rail facility.

- The closest airport is the Palm Springs International Airport approximately 12 miles to the west of the project area so no direct interface would occur.

- The port of Long Beach is the closest port which is located over 100 miles to the west of the proposed project. Due to the distance, no change in interface with port facilities is expected to occur.

- The only mass transit present in the project area is 5 regional bus routes operated by the SunLine Transit Agency. No current bus routes would be affected by the proposed project but the new interchange at Portola Avenue may provide opportunities for new routes, or modifications to existing routes, with respect to service provided by the local transit provider, SunLine Transit Agency.

The proposed project would fit into the existing transportation system by providing a new access point on I-10 for local Palm Desert and Riverside County motorists, as well as providing vehicular, pedestrian, and bicycle access over the freeway and railroad tracks. This project is included in both the City of Palm Desert General Plan (2016) and the County of Riverside General Plan (2012) for regional transportation.

Air Quality Improvements

The proposed project includes transportation control measures, ramp metering and designated HOV lanes on all on-ramps. These design features are anticipated to contribute to air quality improvements.

Independent Utility and Logical Termini

Federal Highway Administration (FHWA) regulations (23 Code of Federal Regulations [CFR] 771.111 [f]) require that a project:

- 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 are expected to encompass an entire project. Cutting a larger project into smaller projects may be considered “improper segmentation” under NEPA. A project must have independent utility; that is, a project must be able to function on its own, without further construction of an adjoining segment.

The proposed I-10/Portola Avenue new interchange project will extend Portola Avenue, an existing major local arterial, from its current terminus, approximately 1,200 feet south of I-10, to cross over and provide direct access to I-10 and terminate at a new intersection with Varner Road, providing residents, business owners, and travelers more direct access to and from the regional highway system. The proposed new connection to existing Portola Avenue south of I-10 and existing Varner Road north of I-10 are logical ending points in relation to the local road network. Likewise, the limits of the auxiliary lanes on eastbound and westbound I-10, are logical ending points in relation to the location of the existing adjacent interchanges, east and west of the new interchange.

The project has been designed so that it would: (1) connect logical termini and be of sufficient length to address environmental matters on a broad scope, (2) have independent utility or independent significance (be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made), and (3) not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

1.3 Project Description

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 2 – Modified Partial Cloverleaf, and Alternative 3 – Modified Single Quadrant Cloverleaf.

The project is located in Riverside County on I-10 from approximately PM 44.8 to PM 46.6. The project covers a distance of approximately 2.25 miles. Within the limits of the proposed project, I-10 consists of three 12-foot lanes with 8-foot left and 10-foot right shoulders in each direction. Varner Road is an adjacent two-lane frontage road north of I-10, and Portola Avenue ends roughly 1,200 feet south of I-10. The purpose of the project is to accommodate future traffic and relieve congestion.

1.4 Alternatives

The following three alternatives have been studied for this project.

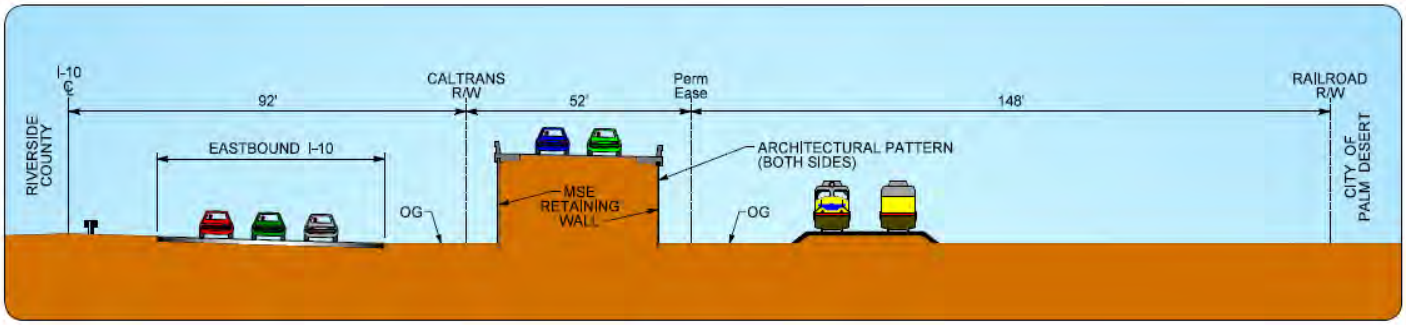
The No-Build Alternative is Alternative 1.

The build alternatives are Alternative 2 – Modified Partial Cloverleaf and Alternative 3 – Modified Single Quadrant Cloverleaf.

1.4.1 Alternative 1: No Build

The “No Build” Alternative is considered the base case scenario and proposes that no improvements be implemented on the mainline facility and no new interchange would be constructed. The No Build Alternative would maintain the existing condition of the project area which includes no connectivity from Portola Avenue to Varner Road across the I-10 freeway, no connectivity from Portola Avenue onto or off of I-10, and no realignment or widening of Varner Road. Without the addition of the Portola Avenue New Interchange, there would be an increase in congestion, specifically focused at the Cook Street and Monterey Avenue Interchanges; LOS in the region would continue to deteriorate which would result in the operational breakdown of the facility.

Figure 1.5: I-10/Portola Avenue Interchange Off-Ramp Cross Section



NO SCALE

Note: OG – Original Ground
MSE – Mechanically Stabilized Earth

1.4.2 Build Alternatives

1.4.2.1 Common Design Features of the Build Alternatives

Both Alternative 2 and Alternative 3 propose to continue Portola Avenue as a six-lane arterial from Dinah Shore Drive to the realigned Varner Road, including a new bridge structure over I-10 and the UPRR and a tight diamond type ramp system for the eastbound on- and off-ramps (Type L-1). Auxiliary lanes on both eastbound and westbound I-10 would be constructed between the proposed Portola Avenue interchange and the adjacent interchanges of Monterey Avenue and Cook Street. A 52 foot wide permanent easement would be required from the UPRR to accommodate the eastbound entrance and exit ramps. Four retaining walls and three structures along the eastbound entrance and exit ramps would be required to minimize impacts to the UPRR right of way. Figure 1.5 provides a cross section of the I-10 right of way, the UPRR right of way, and the permanent easement required in UPRR right of way to construct the Portola Avenue Interchange on- and off-ramps.

Both Build Alternatives propose the realignment and widening of Varner Road to four lanes around the proposed new interchange. To meet minimum design standards for spacing between a freeway interchange ramp intersection and a frontage road intersection, Varner Road would be realigned to be 400 feet away from the westbound off-ramp intersection with Portola Avenue. A large drainage facility and detention basin is proposed on the north and northeast sides of Varner Road to accommodate water flows north of the interchange.

Both Build Alternatives propose construction of new auxiliary lanes on I-10 between the following locations.

- Eastbound I-10 Monterey Avenue on-ramp to the eastbound I-10 Portola Avenue off-ramp
- Eastbound I-10 Portola Avenue on-ramp to the eastbound I-10 Cook Street off-ramp
- Westbound I-10 Cook Street on-ramp to the westbound I-10 Portola Avenue off-ramp
- Westbound I-10 Portola Avenue Loop on-ramp to the westbound I-10 Monterey Avenue off-ramp

Both Build Alternatives propose signalization improvements at the Varner Road/Portola Avenue intersection, the Portola Avenue/I-10 Westbound on- and off-Ramps intersection, and the Portola Avenue/I-10 Eastbound on- and off-Ramps intersection. These signalization improvements are necessary to provide efficient movement of vehicles through the intersections.

A signal at the Portola Avenue/Dinah Shore Drive intersection is not part of this project and is expected to be constructed by the City of Palm Desert as a separate project.

Ramp Metering and High-Occupancy Vehicle (Bus and Carpool) Lanes

Both Build Alternatives have been designed to include ramp metering and HOV lanes on all on-ramps. Each ramp has been designed to include one 12-foot mixed flow lane and one 12-foot HOV lane separated by a solid white stripe.

Union Pacific Railroad Involvement

Both Build Alternatives involve construction directly adjacent to UPRR right of way and will require some permanent easements. All vertical and horizontal clearance requirements by the UPRR will be met with the proposed design.

Non-motorized and Pedestrian Features

Both Build Alternatives include the construction of non-motorized and pedestrian features for safe transportation of individuals to residences and commercial businesses in the area. Standard sidewalks and curb returns would be constructed along Portola Avenue. All electrical cabinets, fire hydrants, signs, and other fixed objects would be located beyond the back of the sidewalk to provide an unobstructed area for pedestrians. Both Build Alternatives have incorporated an 8 foot sidewalk on the west side of Portola Avenue. Both Build Alternatives would provide four to eight foot shoulders which could accommodate bicycle riders on Portola Avenue and Varner Road.

Both Build Alternatives have been designed in accordance with the Americans with Disabilities Act (ADA) for pedestrian accessibility as described in the Caltrans Design Information Bulletin Number 82-04, "Pedestrian Accessibility Guidelines for Highway Projects." ADA compliant crosswalks will be provided to allow for safe pedestrian mobility. Full compliance with ADA standards will include a cross slope of no greater than 2%, an accessible width of at least 8 feet, curb ramp slopes not to exceed 7.5%, an accessible profile grade of no greater than 5%, as well as a detectable warning surface for all ramps along their full widths and depths.

Design Exceptions

Both Build Alternatives share the same proposed design exceptions which include: 1) maintaining the existing inside 5-foot freeway median shoulders, 2) a non-standard separation between the westbound freeway and Varner Road, 3) single ADA curb ramps instead of dual curb ramps along the west side of Portola Avenue, 4) a non-standard merging lane from the Cook Street interchange to the proposed Portola Interchange, 5) a non-standard lane drop location on the I-10 freeway between the westbound off-ramp and the westbound loop on-ramp at Portola Avenue, and 6) a non-standard intersection spacing between Varner Road/Portola Avenue and the Portola Avenue/I-10 Westbound on- and off-Ramps. The above design exceptions have been approved by Caltrans during their review of the project's fact sheets.

1.4.2.2 Unique Features of the Build Alternatives

Build Alternative 2 – Modified Partial Cloverleaf

Alternative 2 would construct a modified Type L-9 partial cloverleaf on the north side of I-10 and a type L-1 compact diamond interchange on the south side of I-10. In comparison to Alternative 3, this alternative eliminates a conflicting left-turn movement (southbound Portola to westbound I-10), and eliminates pedestrian conflict at the same intersection (Figure 1.6).

The estimated cost of Alternative 2 is $79.8 million.

Build Alternative 3 – Modified Single Quadrant Cloverleaf

Alternative 3 consists of a Type L-7 interchange on the north side of I-10 and a type L-1 compact diamond interchange on the south side of I-10. Alternative 3 would utilize a loop on-ramp for both northbound and southbound Portola Avenue traffic to access I-10 traveling westbound. This alternative would result in a design that requires traffic going southbound on Portola to make a left turn to access the westbound I-10 loop on-ramp (Figure 1.7).

The estimated cost of Alternative 3 is $78.1 million.

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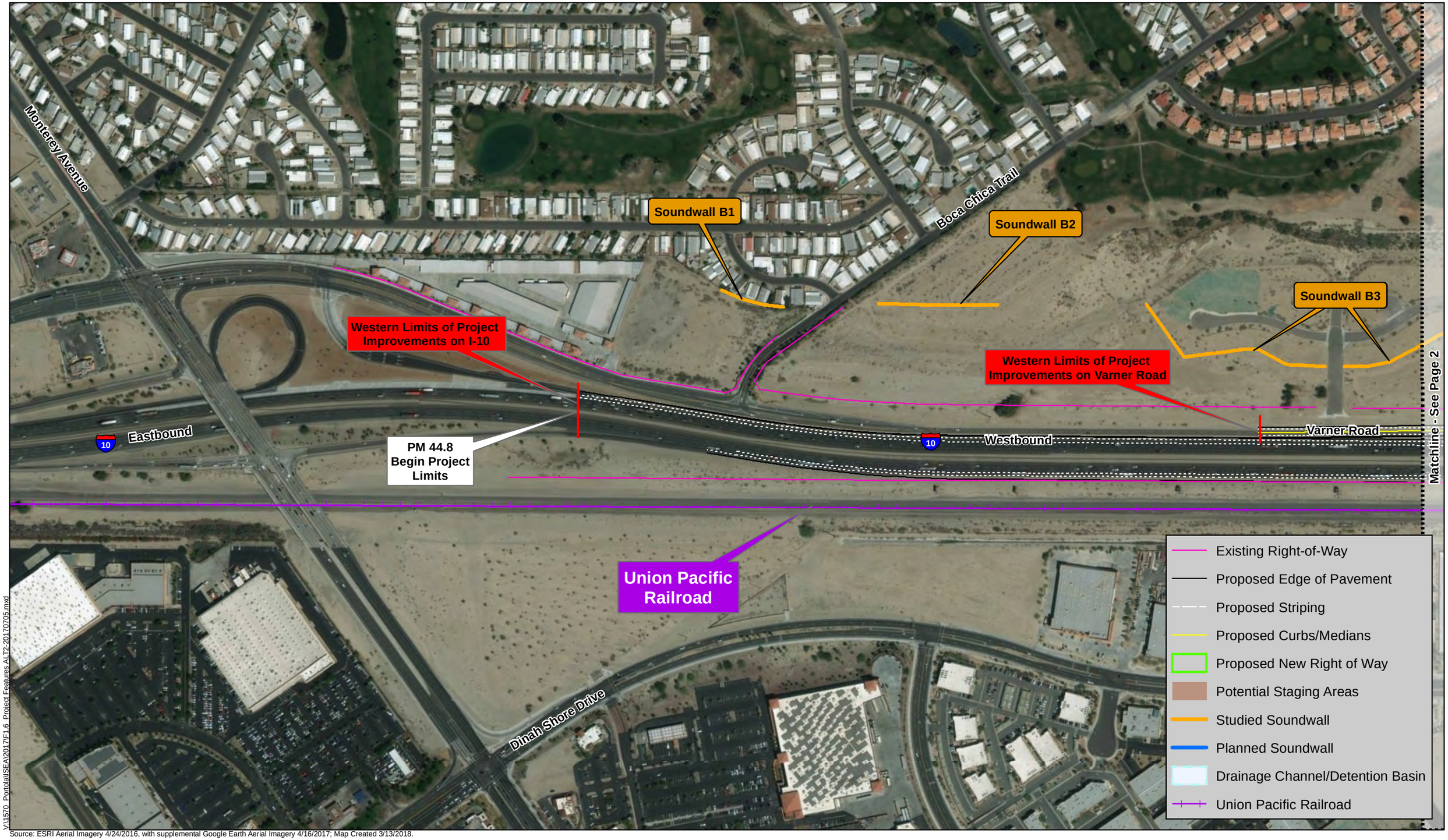

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Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

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FIGURE 1.6
(sheet 1 of 3)
I-10/Portola Avenue New Interchange Alternative 2 (Preferred Alternative)

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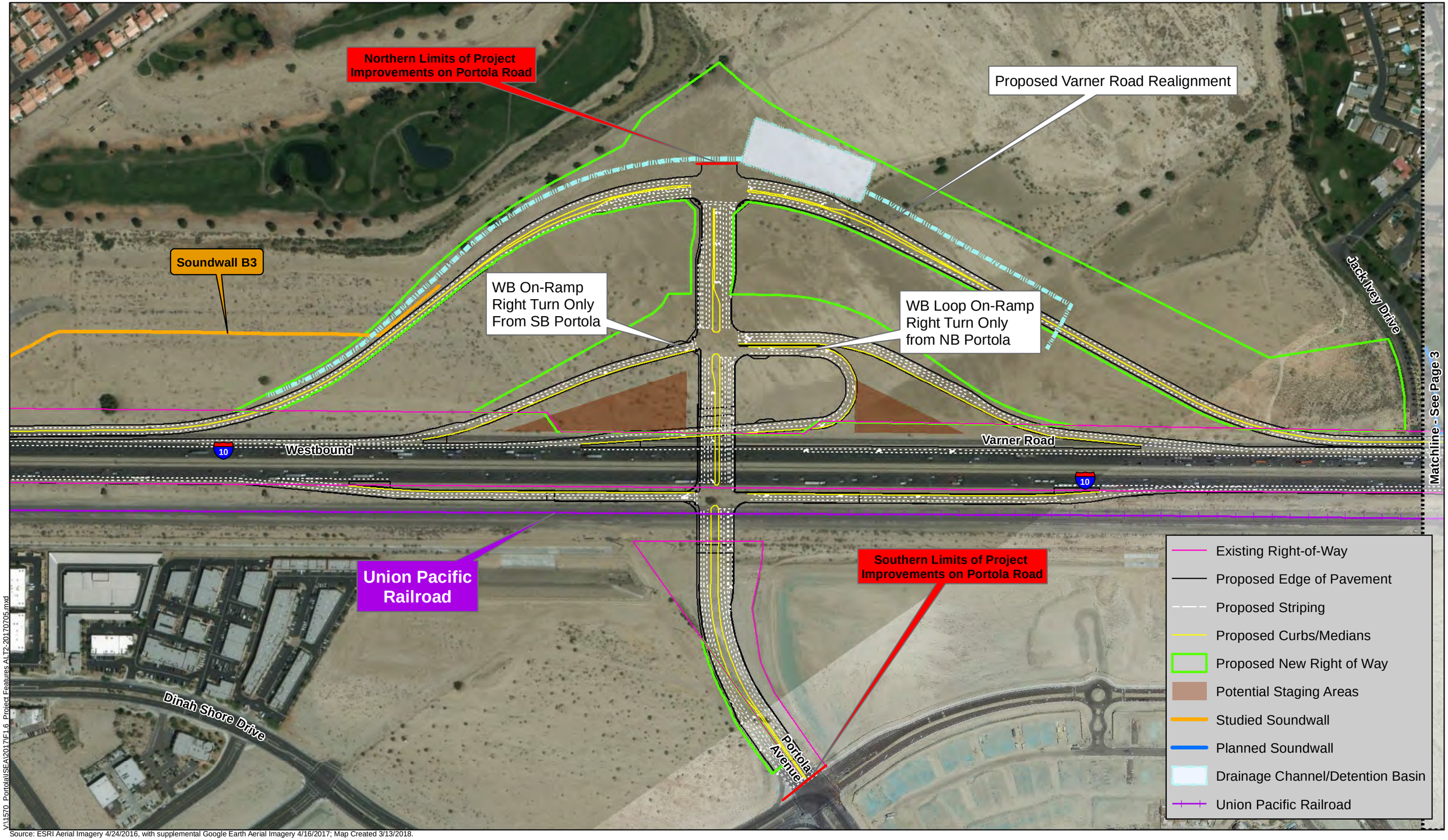

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FIGURE 1.6
(sheet 2 of 3)
I-10/Portola Avenue New Interchange Alternative 2 (Preferred Alternative)

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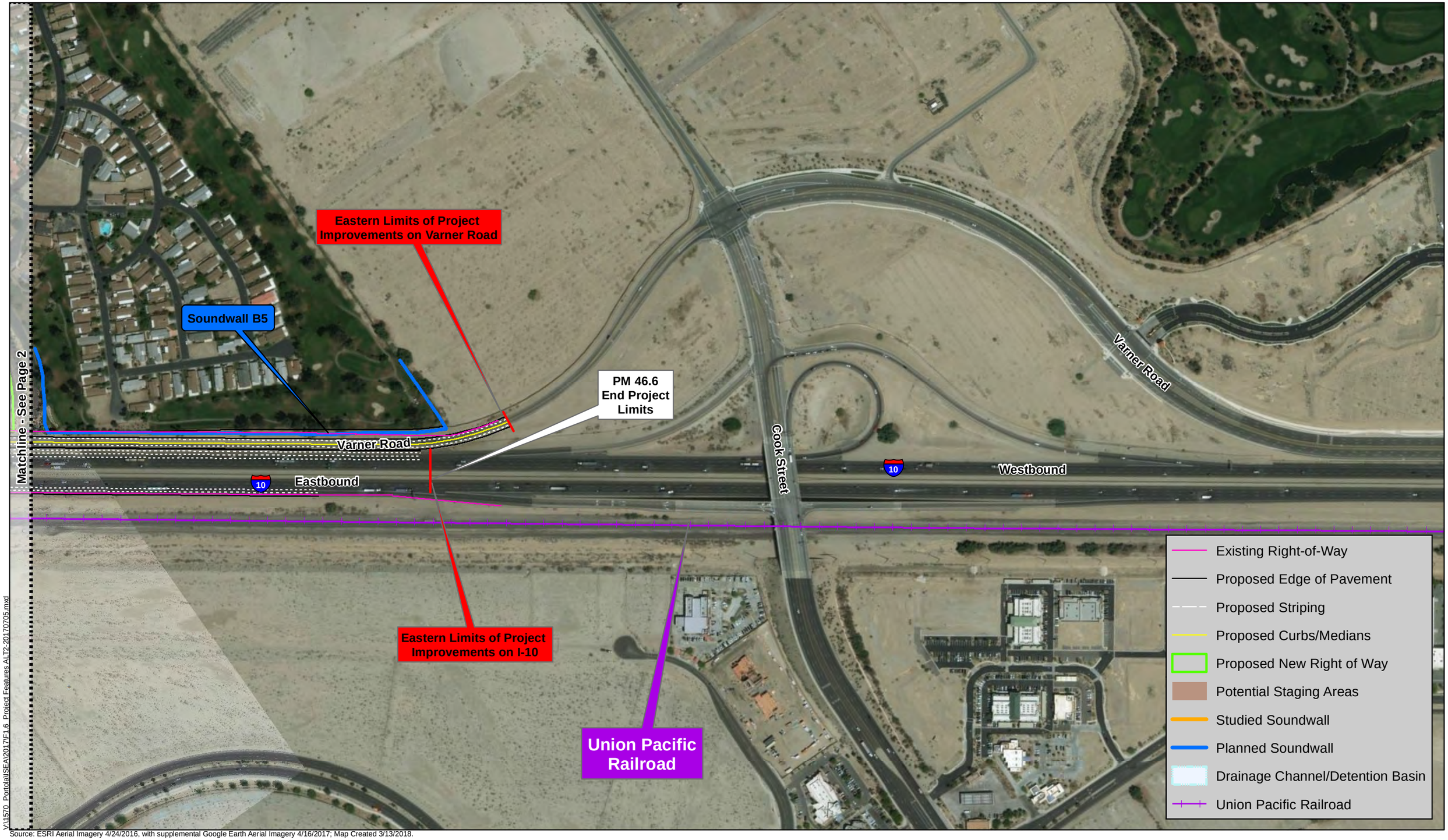

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FIGURE 1.6
(sheet 3 of 3)
I-10/Portola Avenue New Interchange Alternative 2 (Preferred Alternative)

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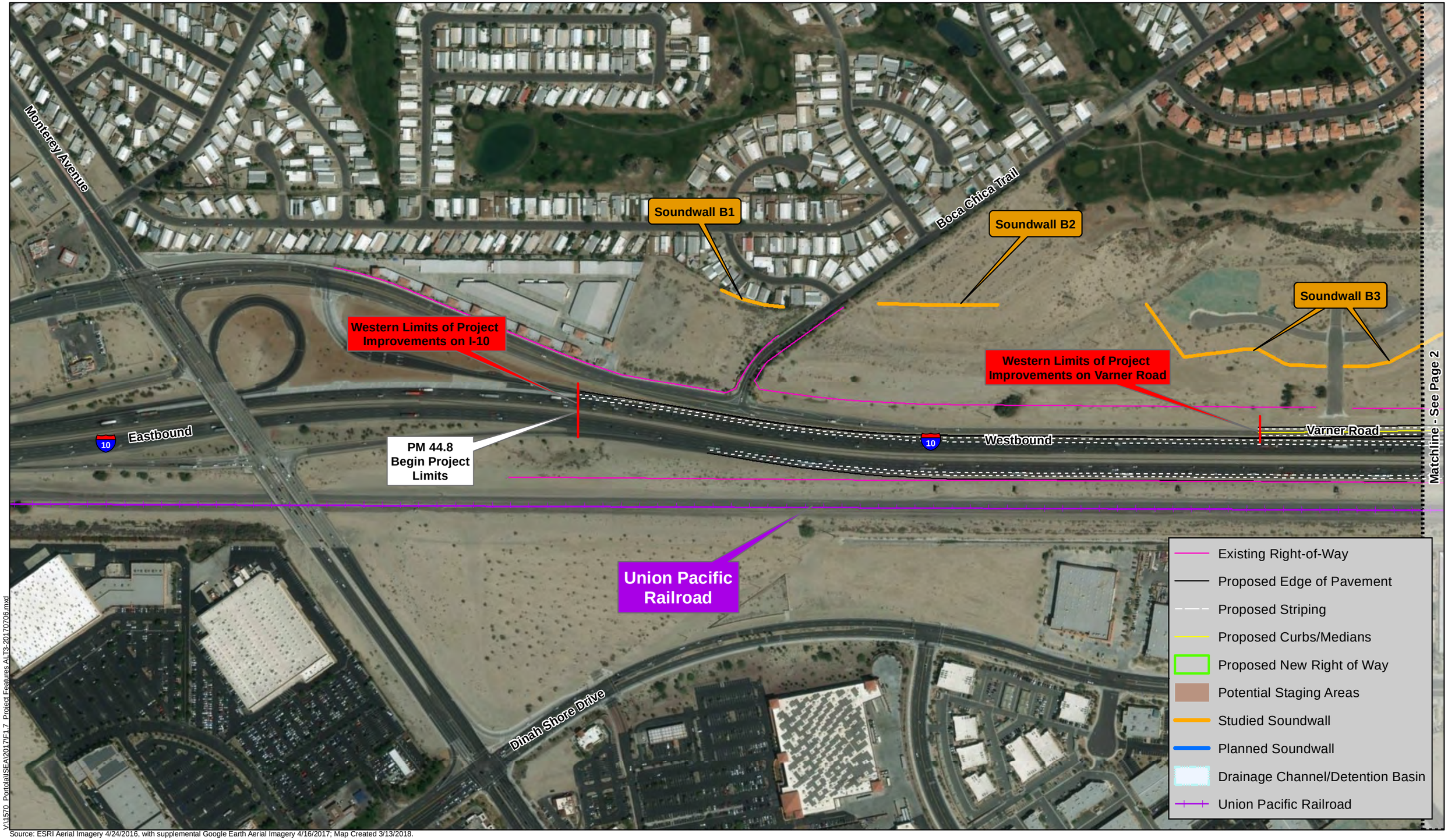

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Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

0 200 400 600 800 1,000 Feet

FIGURE 1.7
(sheet 1 of 3)
I-10/Portola Avenue New Interchange Alternative 3

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Northern Limits of Project Improvements on Portola Road

Proposed Varner Road Realignment

Soundwall B3

WB On-Ramp
Left Turn Only
From SB Portola

WB Loop On-Ramp
Right Turn Only
from NB Portola

Jack Ivey Drive

Matchline - See Page 3

10 Westbound

Varner Road

10 Eastbound

Union Pacific Railroad

Southern Limits of Project Improvements on Portola Road

Dinah Shore Drive

Portola Avenue

Existing Right-of-Way
Proposed Edge of Pavement
Proposed Striping
Proposed Curbs/Medians
Proposed New Right of Way
Potential Staging Areas
Studied Soundwall
Planned Soundwall
Drainage Channel/Detention Basin
Union Pacific Railroad

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Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

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FIGURE 1.7
(sheet 2 of 3)
I-10/Portola Avenue New Interchange Alternative 3

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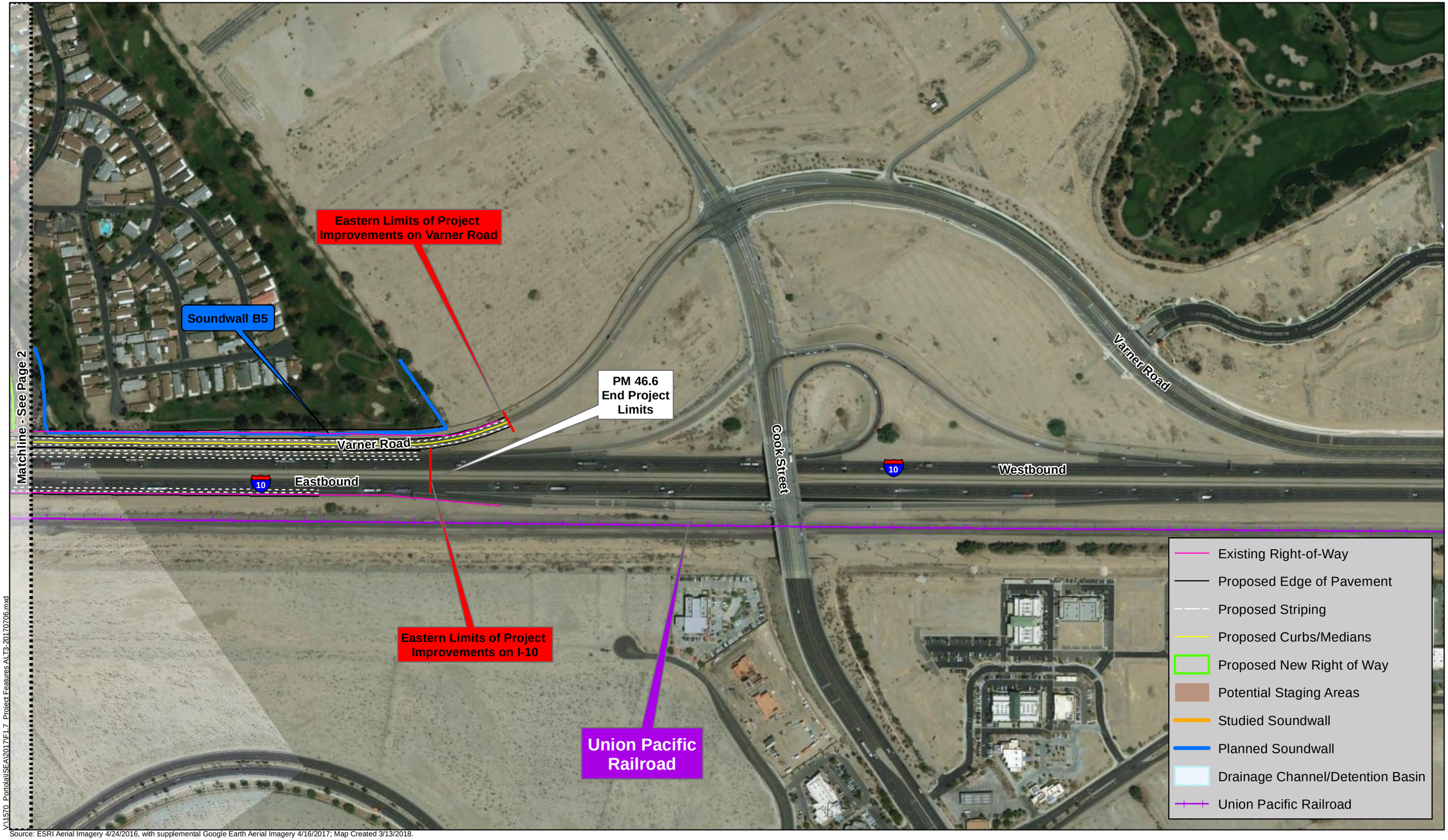

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Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

0 200 400 600 800 1,000 Feet

FIGURE 1.7
(sheet 3 of 3)
I-10/Portola Avenue New Interchange Alternative 3

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1.5 Comparison of Alternatives

This section compares the No-Build Alternative and Build Alternatives against the alternative selection criteria cited in Section 1.4.

Alternatives are evaluated on the basis of both environmental and non-environmental factors, as specified below.

- Satisfies the Purpose of the project
- Provides the best operational performance
- Impacts to environmental resources
- Comparative cost

This alternative evaluation criteria, along with the results of the analyses completed for the proposed "I-10/Portola Avenue New Interchange project," have been utilized by the project development team in conjunction with identifying the Preferred Alternative for the project.

This environmental document evaluated three alternatives that were considered for this project. For this comparison of alternatives, Build Alternatives 2 and 3 were considered full build alternatives and they were compared against the No-Build which would maintain the existing condition. The only difference between Build Alternatives 2 and 3 is that Alternative 2 includes an additional westbound on-ramp in the northwest quadrant of the interchange (see section 1.4). This difference would have a small impact on the operational efficiency of the interchange and would not result in any substantial changes in the environmental impacts between Build Alternatives 2 and 3. Table 1.4 provides a comparison of alternatives.

Table 1.4: Comparison of Alternatives

Comparison Factor	Alternative 1 – No-Build	Build Alternative 2 – Modified Partial Cloverleaf	Build Alternative 3 – Modified Single Quadrant Cloverleaf
Interchange Level of Service	Level of Service in the project vicinity is expected to deteriorate substantially over the next 20 years. The No-Build Alternative would make no improvements to the ongoing worsening traffic conditions. For example in 2040, with the No-Build Alternative, the LOS for the Monterey Avenue/I-10 EB Ramps is estimated to be a D- 40.8 second delay in the AM and a F-119.8 second delay in the PM. LOS for the Cook Street/I-10 WB Ramps is estimated to be a C- 20.4 second delay in the AM and a B-18.7 second delay in the PM. LOS for the I-10. Overall, two intersections would operate at LOS F in 2020 and five intersections would operate at LOS F in 2040.	Level of Service at the new Portola Interchange would function at acceptable levels and would substantially reduce delay at the Cook and Monterey Interchanges. For example in 2040, with Build Alternative 2, the LOS for the Monterey Avenue/I-10 EB Ramps is estimated to be a C-22.5 second delay in the AM and a D- 36.2 second delay in the PM. LOS for the Cook Street/I-10 WB Ramps is estimated to be an A-4.2 second delay in the AM and an A-7.1 second delay in the PM. LOS for the I-10 WB Ramps/Varner Road. Overall, none of the intersections would operate at LOS F in 2020 and four intersections would operate at LOS F in 2040. However, of those four intersections operating at LOS F, each would provide an improvement of over 50 seconds of delay compared with the No-Build Alternative.	Level of Service at the new Portola Interchange would function at acceptable levels and would substantially reduce delay at the Cook and Monterey Interchanges. For example in 2040, with Build Alternative 3, the LOS for the Monterey Avenue/I-10 EB Ramps is estimated to be a C-22.5 second delay in the AM and a D- 36.2 second delay in the PM. LOS for the Cook Street/I-10 WB Ramps is estimated to be an A-4.2 second delay in the AM and an A-7.1 second delay in the PM. LOS for the I-10 WB Ramps/Varner Road. Overall, none of the intersections would operate at LOS F in 2020 and four intersections would operate at LOS F in 2040. However, of those four intersections operating at LOS F, each would provide an improvement of over 50 seconds of delay compared with the No-Build Alternative.

Table 1.4: Comparison of Alternatives (continued)

Comparison Factor	Alternative 1 – No-Build	Build Alternative 2 – Modified Partial Cloverleaf	Build Alternative 3 – Modified Single Quadrant Cloverleaf
Environmental Impacts	No construction would occur resulting in no environmental impacts and no changes to the existing condition. Indirect impacts to the human environment such as increased traffic and impacts to the local economy could occur. In the existing condition, 26 modeled receivers currently experience noise levels that approach or exceed 67 dBA Leq NAC, from noise predominantly generated from I-10. In 2040, 27 modeled receivers would experience noise levels that approach or exceed 67 dBA Leq NAC.	Impacts to the noise and biological environment may occur during or after construction of the new Portola Interchange. **Noise** In the existing condition, 26 modeled receivers currently experience noise levels that approach or exceed 67 dBA Leq NAC, from noise predominantly generated from I-10. In 2040 with Alternative 2, 26 modeled receivers would experience noise levels that approach or exceed 67 dBA Leq NAC without any soundwalls. One soundwall (B5) is proposed to be included in the project that would benefit 16 residences by 5 dBA or more as well as providing a reduction of 7 dBA to at least one receptor. **Biological Resources** Build Alternative 2 would impact areas of disturbed Sonoran creosote bush scrub and disturbed saltbush scrub, neither of which is considered to be a natural community of concern. These areas may provide habitat for species such as migratory birds, the Loggerhead Shrike, Flat Tail Horned Lizard, the Palm Springs Round-Tailed Squirrel and the Burrowing Owl, as well as the plant species Chaparral Sand Verbena. Measures have been incorporated which would minimize and/or avoid impacts to these species during construction. Details on these biological impacts and measures to avoid or minimize those impacts are discussed in Section 2.3.	Impacts to the noise and biological environment may occur during or after construction of the new Portola Interchange. **Noise** In the existing condition, 26 modeled receivers currently experience noise levels that approach or exceed 67 dBA Leq NAC, from noise predominantly generated from I-10. In 2040 with Alternative 2, 26 modeled receivers would experience noise levels that approach or exceed 67 dBA Leq NAC without any soundwalls. One soundwall (B5) is proposed to be included in the project that would benefit 16 residences by 5 dBA or more as well as providing a reduction of 7 dBA to at least one receptor. **Biological Resources** Build Alternative 3 would impact areas of disturbed Sonoran creosote bush scrub and disturbed saltbush scrub, neither of which is considered to be a natural community of concern. These areas may provide habitat for species such as migratory birds, the Loggerhead Shrike, Flat Tail Horned Lizard, the Palm Springs Round-Tailed Squirrel and the Burrowing Owl, as well as the plant species Chaparral Sand Verbena. Measures have been incorporated which would minimize and/or avoid impacts to these species during construction. Details on these biological impacts and measures to avoid or minimize those impacts are discussed in Section 2.3.
Construction and Right of Way Cost Estimate	$0	$79,800,000	$78,100,000

1.6 Value Analysis Study

A Value Analysis (VA) Study was conducted for the project in April of 2007. The purpose of the VA Study was to develop and consider alternatives focusing on operations, safety, and cost. Table 1.5, below, lists the VA Alternatives that were identified during the VA Study and also encapsulates the final decision made on each of the VA Alternatives. The Value Analysis Report for the project was finalized in July of 2007.

VA Alternative 1.0 – Lower the Portola Avenue/Varner Road Intersection

This VA alternative proposed to lower the intersection 10 feet. This change would still meet intersection and stopping sight distance requirements. The advantages of this VA alternative included reducing both construction and right of way costs and also resulting in less imported borrow being needed. No disadvantages to this VA alternative were noted. This VA alternative was accepted and preliminary design for both Build Alternatives 2 and 3 have since been updated to incorporate this VA alternative.

VA Alternative 2.0– Construct a Roundabout at the Portola Avenue/Varner Road Intersection

This VA alternative proposed to construct a roundabout at the Portola Avenue and Varner Road intersection, and move the intersection to the minimum 400-foot intersection spacing requirement. The advantages of this VA alternative included improving traffic flow at the intersection, potentially reducing the severity of intersection accidents; eliminating side impact collisions, savings on structural section, right of way and signal costs, and reducing maintenance costs since there would be no signals to maintain. The disadvantages for this VA Alternative included potentially not being able to handle future traffic volumes and this VA Alternative would also not meet driver expectations which would require changes in driver behavior. VA Alternative 2.0 was rejected because of the potential to not be able to handle future traffic volumes. In addition, it could have resulted in increased future expansion costs.

Table 1.5: Value Analysis Alternatives

Value Analysis Alternative Number	Description	Decision and Reason
1.0	Lower the Portola Avenue/Varner Road Intersection	**Accepted**
2.0	Construct a Roundabout at the Portola Avenue/Varner Road Intersection	**Rejected** This alternative was rejected because it may not handle possible future traffic volumes. In addition, it may increase future expansion costs.
3.0	Move the Portola Avenue/Varner Road Intersection 200 Feet Closer to the Intersection of the Westbound Ramps	**Rejected** The shortened intersection will have a negative effect on operations of the intersection. Also, design standards require minimum 400-foot spacing between intersections. Since the alternative does not meet this requirement and could degrade operations, it was rejected.

Value Analysis Alternative Number	Description	Decision and Reason
4.0	Reduce the Sidewalk Width from 8 Feet to 5 Feet	**Rejected** This alternative was rejected in favor of VA Alternative 8.0.
5.0	Construct a Tight Diamond Interchange; Eliminate the Loop Ramp	**Conditionally Accepted but was not incorporated into either of the Build Alternatives**
6.0	Eliminate One of Three Northbound Through Lanes for the Full Length of Portola Avenue	**Rejected** This alternative was rejected because it [Portola Avenue] was designated as an arterial street in the Palm Desert General Plan. As such, the City standards require three lanes in both directions.
7.0	Eliminate the Sidewalk on the East Side of Portola Avenue	**Rejected** This alternative was rejected in favor of alternative 8.0.
8.0	Construct a Free-Flow Northbound to Westbound Loop On-Ramp and Eliminate the Eastside Sidewalk	**Conditionally Accepted and incorporated into both Build Alternatives**
9.1	Place Concrete Barrier Between Westbound I-10 and Varner Road at the East and West Ends, Next to the Auxiliary Lanes to Protect Opposing Traffic	**Conditionally Accepted incorporated into both Build Alternatives**
9.2	Place Concrete Barrier Between Westbound I-10 and Varner Road at the East End of Varner Road, and Relocate Varner Road to Provide Adequate Spacing from the Proposed Auxiliary Lane	**Conditionally Accepted incorporated into both Build Alternatives**

VA Alternative 3.0 – Move the Portola Avenue/Varner Road Intersection 200 Feet Closer to the Intersection of the Westbound Ramps

This VA alternative proposed to move the intersection to the minimum 400-foot intersection spacing requirement. The advantage to this VA Alternative was the cost savings on the structural section due to the reduction in the length of Portola Avenue and the associated savings in right of way costs. The disadvantage to this VA Alternative was the shorter intersection spacing which would result in less vehicle storage capability. On the whole, the shortened intersection was expected to have a negative effect on operations of the intersection. Also, design standards require minimum 400-foot spacing between intersections. Since this VA Alternative does not meet this requirement and could degrade operations, it was rejected.

VA Alternative 4.0 – Reduce the Sidewalk Width from 8 Feet to 5 Feet

This VA Alternative was rejected in favor of VA Alternative 8.0.

VA Alternative 5.0 – Construct a Tight Diamond Interchange; Eliminate the Loop Ramp

This VA Alternative proposed to eliminate the loop ramp and construct a diamond interchange. The advantage to this VA Alternative was the savings to construction costs because of one less ramp. The disadvantage to this VA Alternative was adding more delay to motorists because of one less access point. This VA Alternative was conditionally accepted in conjunction with the conclusion of the VA Study, however, subsequently, it was not incorporated into either of the Build Alternatives.

VA Alternative 6.0 – Eliminate 1 of 3 Northbound Through Lanes for the Full Length of Portola Avenue

This VA alternative proposed to eliminate one northbound lane on Portola Avenue. The advantage to this VA Alternative was lowering construction cost because of reduced bridge median width and some of the length of roadway median width. The disadvantages to this VA Alternative was that it would make the future addition of more lanes difficult, and this design was also considered potentially inconsistent with City of Palm Desert development guidelines. Portola Avenue is identified as an arterial street in the Palm Desert General Plan and as such, the City standards require three lanes in both directions. For this reason, VA alternative 6.0 was rejected.

VA Alternative 7.0 – Eliminate the Sidewalk on the East Side of Portola Avenue

This VA alternative was rejected in favor of VA alternative 8.0.

VA Alternative 8.0– Construct a Free-Flow Northbound to Westbound Loop On-Ramp and Eliminate the Eastside Sidewalk

This VA Alternative proposed to construct a free flow northbound-to-westbound loop on-ramp and eliminate the east side sidewalk. Advantages of this VA Alternative included improving safety with less potential for a wrong-way movement, improving operations due to a free-flow loop ramp and improving safety of pedestrians because of fewer conflicts and also reducing sidewalk cost and structure cost. No disadvantages were noted for this VA Alternative.

The improvements in the performance of operations and safety as well as reduced construction costs of approximately $2,000,000 are all reasons why VA Alternative 8.0 was conditionally accepted. A free-flow northbound to westbound loop on-ramp was subsequently incorporated into the preliminary design for both Build Alternatives.

VA Alternative 9.1 – Place Concrete Barrier Between Westbound I-10 and Varner Road at the East and West Ends, Next to the Auxiliary Lanes to Protect Opposing Traffic

This VA Alternative proposed to provide adequate protection between the opposing directions of traffic (westbound I-10 and eastbound Varner Road) along the proposed auxiliary lanes by constructing a concrete barrier. Advantages to this VA Alternative included providing barrier protection for motorists on opposing traffic flows and addressed an original design concept omission. The disadvantages to this VA Alternative included additional construction costs and installing a fixed object along the roadway.

This VA Alternative was conditionally accepted and was subsequently incorporated into the preliminary design of both Build Alternatives.

VA Alternative 9.2 – Place Concrete Barrier Between Westbound I-10 and Varner Road at the East End of Varner Road, and Relocate Varner Road to Provide Adequate Spacing from the Proposed Auxiliary Lane

This VA Alternative proposed to relocate Varner Road to the north to maintain adequate clear recovery zone distance. Advantages to this VA Alternative included providing barrier protection for motorists on opposing traffic flows and addressed an original design concept omission. The disadvantages included additional construction costs, installing a fixed object along the roadway, and potential impacts to the project setting as a result of this design approach. This VA Alternative was conditionally accepted and was incorporated into the preliminary design of both Build Alternatives.

A VA Implementation Meeting was held on June 26, 2007, attended by representatives from Palm Desert and Caltrans District Management. VA Alternatives 1, 8, 9.1 and 9.2 have been incorporated into both Build Alternatives for this project.

1.7 Identification of a Preferred Alternative

Caltrans, as the lead agency under CEQA and NEPA (assigned by FHWA), has identified Build Alternative 2 – Modified Partial Cloverleaf as the Preferred Alternative. The Preferred Alternative was voted on by the Project Delivery Team in a regular monthly meeting on January 11, 2018. The team included representatives from Caltrans, the County of Riverside, the City of Palm Desert, and engineering and environmental consultants assisting in project delivery. The decision was made after comparing and weighing the benefits and impacts of the feasible alternatives and taking into account public comments received during the Draft IS/EA public circulation. The identified alternative would construct a new full access modified partial cloverleaf interchange at I-10 and would extend Portola Avenue over the Union Pacific Railroad and I-10 to the realigned Varner Road in the City of Palm Desert and Riverside County. The main factor for selecting Build Alternative 2 over Build Alternative 3 was that, although both alternatives are expected to provide adequate traffic operations over the next 20 years, Build Alternative 2 would provide a longer term solution for operations in the vicinity by providing a free-right turn westbound on-ramp for vehicles traveling south on Portola Avenue rather than requiring them to make a left turn onto the loop on-ramp. The difference in cost between Build Alternative 2 and Build Alternative 3 is approximately $2 Million or a 2.5% cost increase. If the westbound on-ramp were constructed as a separate project at some future date due to increased traffic demand on the interchange, total project costs to complete that project are estimated at $3-4 Million.

1.8 Alternatives Considered but Eliminated from Further Discussion Prior to the “Draft” IS/EA

The following two alternatives were considered but eliminated from further discussion. Accordingly, they were not included in the analysis efforts completed in conjunction with preparation of this Initial Study with Proposed Negative Declaration/Environmental Assessment. A summary description of each alternative and why it was eliminated is provided below.

Alternative 4: Single Point Interchange

Alternative 4 proposed construction of a Single Point Interchange (SPI) at Portola Avenue. This alternative was identified in the April 2005 Project Study Report. It proposed to realign the mainline I-10 approximately 100 feet to the north. In addition, Alternative 4 would have involved constructing four diamond entrance and exit ramps, auxiliary lanes between the new Portola Avenue Interchange and the adjacent interchanges, realignment of Varner Road, and construction of retaining walls along the eastbound ramps to minimize encroachment on the UPRR right of way. Disadvantages regarding the SPI included that it would require a very large structure to provide flares on the single point interchange and any potential future expansion on I-10 where the SPI was located would be more difficult. In consideration of the disadvantages associated with a SPI, this alternative was not considered viable and was not studied beyond the Value Analysis Study in 2007.

Alternative 5: Realigned Modified Partial Cloverleaf Interchange

Alternative 5 proposed construction of a Type L-9 partial cloverleaf on the north side of I-10 and a Type L-1 compact diamond interchange on the south side of I-10. Alternative 5 also proposed shifting I-10 approximately 60 feet through the proposed interchange area to avoid impacting UPRR right of way. This alternative would have also included realignment of Varner Road near the project and the construction of a six through-lane bridge spanning the ultimate configuration of I-10 and the UPRR right of way. Auxiliary lanes would have been constructed between the Portola Avenue Interchange and the adjacent Monterey Avenue and Cook Street Interchanges. A permanent easement would be required from the UPRR to accommodate the eastbound on- and off-ramps. Retaining walls and structures along the eastbound ramps would be required to minimize impact to the UPRR right of way. In addition, on-ramps would be provided with CHP enforcement areas and MVP's, and would be designed to accommodate ramp-metering systems. This alternative was not considered viable due to the difficulties associated with realigning I-10. The difficulties incurred by realigning I-10, including staging, increased construction costs, and further realignment of Varner Road. Alternative 5 was not studied beyond the Value Analysis Study in 2007.

Since this alternative has an identical lane configuration to Alternative 2, its traffic operational analysis is the same. Although they have the same ramp configuration, Alternative 5 is substantially different from Alternative 2 in terms of impact to the surrounding area. The main difference is the additional 60 foot width of right of way that would be required along the westbound ramps. Alternative 5 was rejected and was not studied beyond the Value Analysis Study which is summarized in Section 1.6 above.

1.9 Permits and Approvals Needed

The following permits, reviews, and approvals would be required for project construction:

Table 1.6: Permits and Approvals Needed

Agency	Permit/Approval	Status
Union Pacific Railroad	UPRR License Agreement, Construction and Maintenance Agreement, and Right-of-Entry Permit	Approval will be obtained prior to completion of Final Design of the Project. These agreements will be required in order to construct the Portola Avenue UPRR overhead structure.
California Public Utilities Commission	Complete applicable requirements associated with Sections 1201 through 1205 of the California Public Utilities Code.	Application to CPUC regarding new Portola Avenue bridge over UPRR tracks to occur prior to completion of the Final Design phase of project.
Coachella Valley Multiple Species Habitat Conservation Plan	Consistency with the Coachella Valley Multiple Species Habitat Conservation Plan	As identified in the September 2007 Coachella Valley Multiple Species Habitat Conservation Plan, approved by CDFW on September 9, 2008 and approved by USFWS on October 1, 2008, the proposed project is a Covered Activity.
Coachella Valley Water District (designated Federal Emergency Management Agency)	Conditional Letter of Map Revision (CLOMR)	A CLOMR will be obtained during Final Design and prior to construction.
	Letter of Map Revision (LOMR)	The LOMR will be prepared after construction is completed.
State Water Resources Control Board (SWRCB) Permit	Construction General Permit – Order No. 2009-0009-DWQ, NPDES No. CAS000002	SWRCB Construction General Permit will be obtained prior to the start of construction.
	Caltrans Statewide Stormwater Permit, Order No. 2012-0011-DWQ, NPDES No. CAS000003	SWRCB Caltrans Stormwater Permit will be obtained prior to the start of construction.
Federal Highway Administration (FHWA)	Air Quality Conformity Analysis Determination	FHWA issued an Air Quality Conformity Analysis Determination Letter on March 8, 2018 (see Appendix G).

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

This chapter explains the impacts that the project would have on the human, physical, and biological environments within the project and surrounding areas. It describes the existing environments that could be affected by the project, potential impacts from each of the alternatives, and the avoidance, minimization and/or mitigation measures. Any indirect impacts are included in the general impacts and analysis discussions. The project area is the area studied for both temporary and permanent impacts.

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

- Wild and Scenic Rivers – There are no designated Wild and Scenic Rivers in the vicinity of the project. The nearest Wild and Scenic River is Palm Desert Creek, roughly 10 miles to the west.
- Farmlands/Timberlands – There are no designated farmlands or timberlands within or adjacent to the project area. According to the Land Use Plan map included in the July 2017 County of Riverside Western Coachella Valley Area Plan, the nearest potential farmland is an area designated as Agriculture Land Use, located approximately three miles north-northwest of the project area. No conversion of farmland or any other impacts to farmland or timberlands would occur as a result of the proposed project.
- National Marine Fisheries Service – This project is located outside of NMFS jurisdiction, therefore an NMFS species list is not required and no effects to NMFS species are anticipated.

2.1 Human Environment

Both Build Alternatives for the I-10/Portola Avenue New Interchange would impact approximately the same area. As a result, potential impacts described are the same for both Build Alternatives except where specifically noted.

2.1.1 Land Use

The information contained in this section was gathered largely from the City of Palm Desert Comprehensive General Plan (2016) and the County of Riverside General Plan (established in 2003 and updated in 2008). For this analysis the General Plans were reviewed to understand the development trends, land use related goals, and specific City and County policies that could affect or be affected by the proposed I-10/Portola Avenue New Interchange Project.

2.1.1.1 Existing and Future Land Use

Existing and future land uses in the project vicinity include open space, commercial, industrial, residential resort, and educational. These land uses are within the City of Palm Desert, in the area generally south of I-10; and the unincorporated community of Thousand Palms within Riverside County, in the area generally north of I-10. The project vicinity has experienced rapid development

over the last 10-15 years and additional residential and commercial development is expected to continue based on the City and County's growth estimates.

City of Palm Desert

The northerly boundary of Palm Desert follows the I-10/Union Pacific Railroad (UPRR) corridor from approximately one half mile west of Monterey Avenue to Washington Street. The existing land uses in the area bordering the project are characterized by urbanized development, including commercial and industrial uses. Existing land uses adjacent to the project site are designated by the General Plan as Regional Commercial and Industrial-Business Park. The Regional Commercial designation provides for larger-scale, integrated shopping centers and malls, which may be anchored by several department stores or other large-scale anchors, including "big-box" retailers, a variety of retail outlets, restaurant and entertainment uses. Hotels and motels may also be appropriate on these lands. "Big-box" retailers including Wal-Mart, Sam's Club and Costco dominate this portion of the study area and include a variety of small businesses, including restaurants/fast food establishments, banks and several specialty retail stores.

The Business Park designation provides for a flexible mix of office, service commercial, wholesaling and light manufacturing uses ranging from professional and medical offices to copy and printing shops, business and office supply stores, paint, tile and cabinet shops, and similar uses. Limited retail sales, including restaurants, geared primarily toward park businesses may also be appropriate. Development of Palm Desert around the proposed Portola Interchange began in earnest in the early 2000's and has a mix of commercial services that are concentrated toward the regional commercial area and the Cook Street corridor. Within the Mobility Element of the City of Palm Desert General Plan, the Portola/I-10 Interchange is mentioned as a future interchange to relieve future congestion on surrounding major streets and will serve as an evacuation route (page iii-123).

Urban development in the City has evolved initially from and along Highway 111. Homes, hotels and resorts have developed a short distance north and south of the Highway 111 commercial corridor. Over a five-decade period, the City has evolved from a traditional urban village pattern to one including more expansive master-planned communities. Large-scale tourist and residential resort development has reinforced demand for golf and associated facilities, which now comprise a major part of the City's developed lands. The City's position as the commercial center of the Coachella Valley was established with the development of the Palm Desert Town Center retail shopping mall in the early 1980's. Since that time, commercial land uses have spread to other key locations within the City's roadway network, including lands near the I-10 interchanges.

The City's University Park Planning Area is identified in the City's General Plan Land Use Element as the area in the City where expanses of vacant land is available for coordinated master planning and development. Major influences to this area include the Palm Desert campuses of the California State University, San Bernardino and University of California, Riverside, residential resort development to the south, and regional commercial development in the vicinity of the I-10 interchanges. The University Park Planning Area is shown on Figure 2.1. A list of planned developments within the City of Palm Desert, in the vicinity of the project, is included in Section 2.1.2 on Table 2.2 and these developments are shown geographically on Figure 2.4.

Community of Thousand Palms/County of Riverside

Riverside County is the local governmental body for areas north of I-10. The existing land uses in the study area are characterized by open space and urbanized development, including commercial and residential, as shown on Figure 2.2. The Western Coachella Valley Area Plan

ranges in character from suburban style development, to remote rural areas, to the outlying mountainous and desert terrain typical in the region. The Plan seeks to maintain the character of these areas, while allowing additional urban development in the areas adjacent to the corridor and preserving the character of the Valley's remote desert and mountainous areas. The Plan focuses Community Development land uses, including residential, commercial and industrial uses, along I-10 and the Pierson Boulevard and Dillon Road Corridors (located approximately 15 miles northwest and 7 miles northeast of the project area, respectively), while maintaining a mix of urban uses in Thousand Palms.

The current land use plan for the area shows the majority of the land next to I-10 as planned for commercial retail development. Behind this area, medium density residential (2-5 dwelling units per acre) and medium high density residential (5-8 dwelling units per acre) are indicated. Currently, there is a golf course, the Club at Shenandoah Springs, north of I-10, within half a mile of the project site. Ivey Ranch Country Club is located southeast of the project site, while Tri Palm Estates is located northwest of the project site.

2.1.1.2 Consistency with State, Regional, and Local Plans and Programs

The project is within the following planning and program areas: Southern California Association of Government's Regional Transportation Plan/Sustainable Communities Strategy and Federal Transportation Improvement Program, Coachella Valley Association of Governments, Coachella Valley Multiple Species Habitat Conservation Plan, City of Palm Desert Comprehensive General Plan, Riverside County General Plan Western Coachella Valley Area Plan.

Southern California Association of Governments 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy

Southern California Association of Governments (SCAG) is the metropolitan planning organization for six counties in Southern California: Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) is a long-term (minimum of 20 years) vision document that outlines transportation goals, objectives, and policies for the SCAG region. The 2016–2040 RTP was adopted by SCAG on April 7, 2016, and FHWA and FTA made the required regional conformity determination on June 1, 2016. Within the SCAG 2016–2040 RTP/SCS, the project (Project Number RIV031209 and project identification number RIV031209) is described as follows:

> "*At I-10/Portola Ave (B/W [between Monterey IC [interchange] & Cook IC [interchange]): Construct new 6 thru lane Portola Ave IC [interchange] from Dinah Shore Drive to Varner Road and Ramps EB [eastbound] exit 2 lanes, WB [westbound] exit 3 lanes, EB [eastbound] & WB [westbound] entry 2 lanes, WB [westbound]entry loop ramp 2 lanes, entry including HOV [high occupancy vehicle] lane, widening includes bridge over UPPR [Union Pacific Rail Road] & Relocate/Widen Varner [from] 2 to 4 lanes, add EB [eastbound]/ WB [westbound] auxiliary lanes (Monterey to Portola and Portola to Cook), extend 4th WB [westbound] lane to Cook to Portola."*

Riverside County is in the process of completing coordination requirements to update the RTP/SCS listing for the project in conjunction with Amendment 3, which will incorporate the Opening Year being 2020 instead of 2019 and also include an update to the project cost estimate. The amendment is expected to be approved in early 2019.

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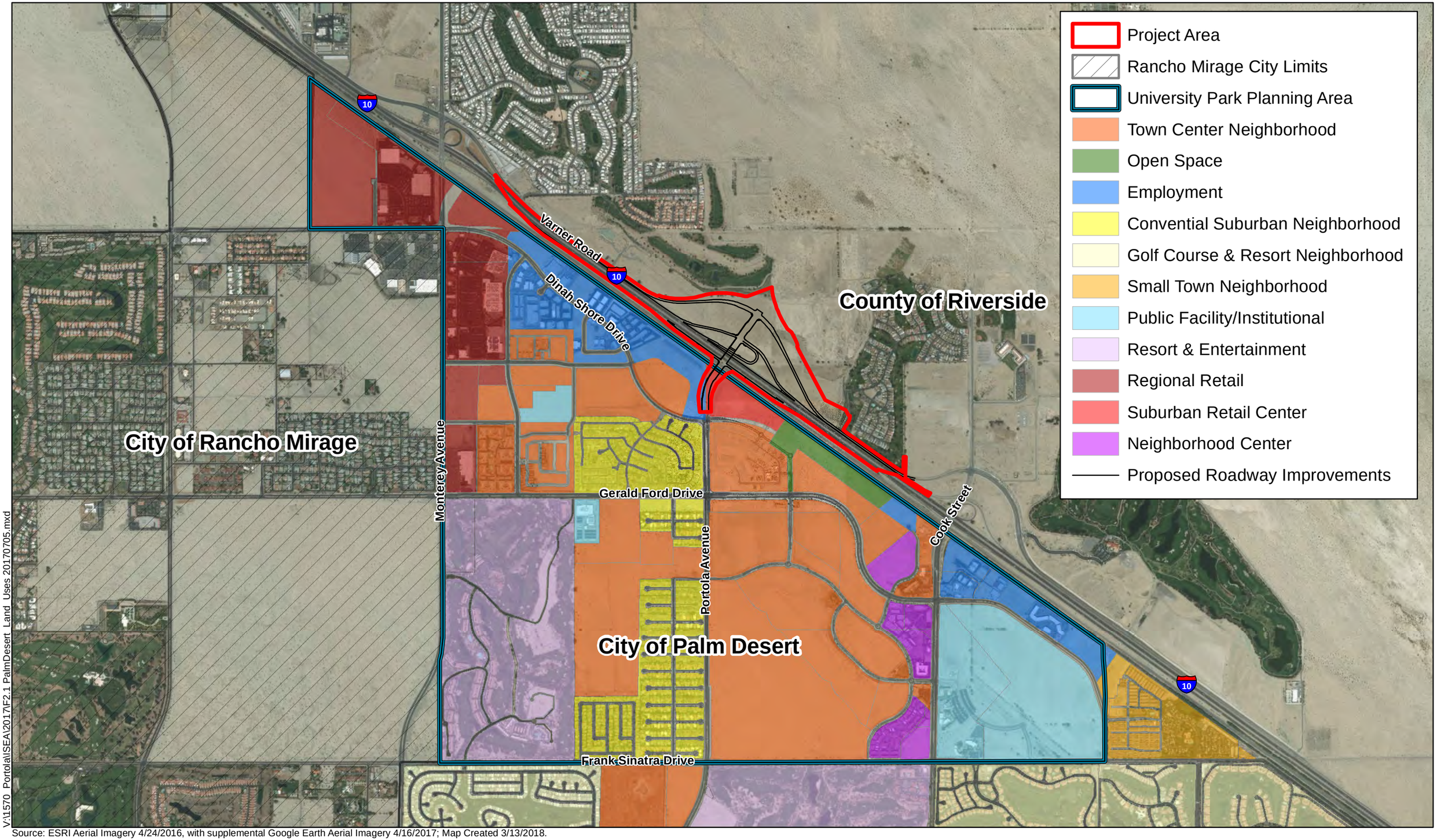

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Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

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FIGURE 2.1
City of Palm Desert Planned Land Uses

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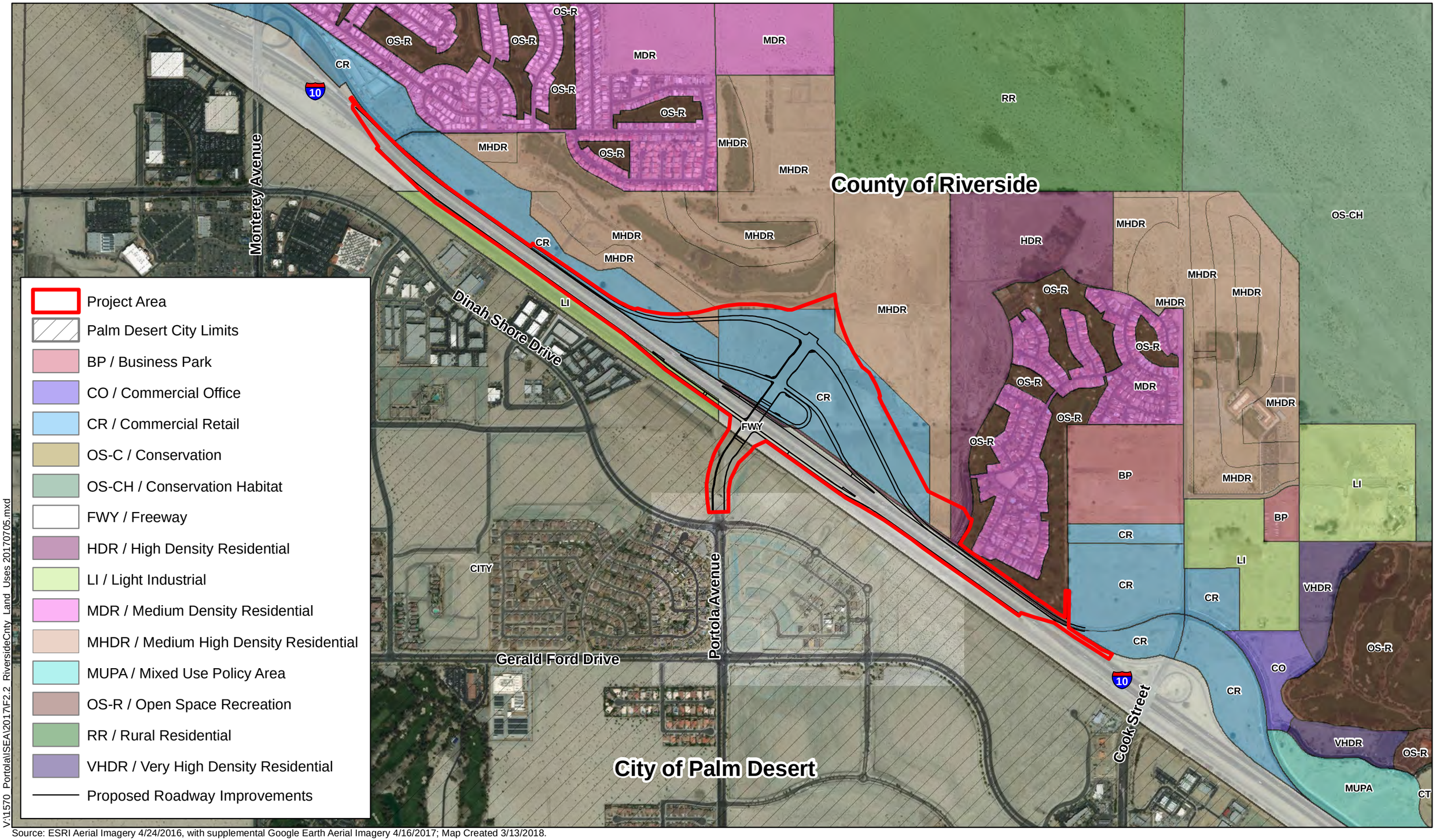

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Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

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FIGURE 2.2
Riverside County Planned Land Uses

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Southern California Association of Governments 2017 Federal Transportation Improvement Program

SCAG's 2017 Federal Transportation Improvement Program (FTIP) lists transportation projects proposed over a six-year period, from fiscal year 2016–2017 to 2021–2022. The FTIP must include all transportation projects that require federal funding as well as all regionally significant transportation projects for which federal approval (by the FHWA or FTA) is required, regardless of funding source. The FTIP is prepared to implement projects and programs listed in the 2016-2040 RTP/SCS and it is developed in compliance with state and federal requirements. The 2017 FTIP was adopted by SCAG on September 1, 2016, and determined to conform by FHWA and FTA on December 16, 2016. The project is described as follows in the SCAG 2017 FTIP (Project Number RIV031209):

> *At I-10/Portola Ave (B/W [between Monterey IC [interchange] & Cook IC [interchange]): Construct new 6 thru lane Portola Ave IC [interchange] from Dinah Shore Drive to Varner Road and Ramps EB [eastbound] exit 2 lanes, WB [westbound] exit 3 lanes, EB [eastbound] & WB [westbound] entry 2 lanes, WB [westbound] entry loop ramp 2 lanes, entry including HOV [high occupancy vehicle] lane, widening includes bridge over UPPR [Union Pacific Rail Road] & Relocate/Widen Varner [from] 2 to 4 lanes, add EB [eastbound]/WB [westbound] auxiliary lanes (Monterey to Portola and Portola to Cook), extend 4th WB [westbound] lane to Cook to Portola.*

The 2017 FTIP has been amended numerous times, most recently with Amendment No. 17-13, an Administrative Modification amendment. Administrative Modification amendments only require SCAG approval. SCAG approved Administrative Modification Amendment 17-13 on September 13, 2017. The project is included in the list of modeled projects in the current, approved 2017 FTIP. Riverside County is in the process of completing coordination requirements to update the FTIP listing for the project to provide current project estimates. The associated FTIP amendment is expected to be approved in the first half of 2018.

Coachella Valley Association of Governments

Coachella Valley Association of Governments (CVAG) is the council of governments and transportation planning agency for Coachella Valley. They are responsible for the cooperative regional planning of local and regional roadway improvements, train and bus transportation, deployment of intelligent transportation systems, and long-term planning studies. CVAG actively participates in the regional planning activities of the SCAG. CVAG coordinates the input of local jurisdictions within Riverside County for inclusion of projects in the 2016-2040 RTP/SCS and FTIP. The project is listed in the Western Coachella Valley Area Plan under the vehicular circulation system and is supported by CVAG as a future interchange project. CVAG has committed to the County of Riverside and City of Palm Desert to help fund construction of this project.

Coachella Valley Multiple Species Habitat Conservation Plan

The Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) is a comprehensive, multi-jurisdictional habitat conservation plan focusing on conservation of species and their associated habitats in the Coachella Valley region of Riverside County. The overall goal of the CVMSHCP is to maintain and enhance biological diversity and ecosystem processes within the region while allowing for future economic growth. The CVMSHCP covers 27 sensitive plant and wildlife species as well as 27 natural communities. The overall provisions of the plan are subdivided according to specific resource conservation goals, and are organized according to

geographic areas defined as Conservation Areas. These areas are identified as Core, Essential, or Other Conserved Habitat for sensitive plant, invertebrate, amphibian, reptile, bird, and mammal species, Essential Ecological Process Areas, and Biological Corridors and Linkages. Each Conservation Area has specific Conservation Objectives that must be satisfied.

The September 2007 CVMSHCP received final approval from CDFW on September 9, 2008 and from USFWS on October 1, 2008. Each Implementing Agency will contribute funds or impose a development mitigation fee for projects within its jurisdiction. The I-10/Portola New Interchange Project is a covered project under the CVMSHCP as indicated in Section 7.2.3 of the CVMSHCP (Table 7-3 CVAG Regional Road Projects). The CVMSHCP does not identify any special status habitat or species within the plan area requiring project specific conservation or mitigation. The City of Palm Desert, County of Riverside, and Caltrans are all signatory Implementing Agencies to the CVMSHCP. Applicable CVMSHCP Policies are included in Table 2.1 below, along with a discussion regarding consistency for each proposed alternative.

City of Palm Desert Comprehensive General Plan

The City of Palm Desert Comprehensive General Plan, adopted November 10, 2016, is the primary planning document for the portion of the project south of I-10 (within the City's jurisdiction). It identifies land use, transportation, environmental, economic, and social goals and policies as they relate to land use. The City's General Plan indicates the project area is located in a desert region in an area designated for commercial and residential development within the City of Palm Desert. The general plan describes Portola Avenue as an existing north south arterial roadway. The general plan transportation element identifies an interchange at Portola Avenue and I-10 in the future condition.

Applicable City of Palm Desert Comprehensive General Plan Goals, Policies, and Programs are included in Table 2.1 below, along with a discussion regarding consistency for each proposed alternative.

Riverside County General Plan Western Coachella Valley Area Plan

A portion of the project (north of I-10) is under the jurisdiction of Riverside County and the Riverside County General Plan Western Coachella Valley Area Plan (July 2017). The Riverside County General Plan Western Coachella Valley Area Plan includes a policy to consider a new interchange at I-10/Portola. The circulation map also shows Portola Avenue as an arterial street with I-10/Portola Avenue as an interchange and as Varner Road as a secondary road.

Applicable Riverside County General Plan Western Coachella Valley Area Plan Goals and Policies are included in Table 2.1 below, along with a discussion regarding consistency for each proposed alternative.

Environmental Consequences

Both Build Alternatives are consistent with the relevant goals, policies, and programs described in the City of Palm Desert Comprehensive General Plan (2016), Riverside County General Plan Western Coachella Valley Area Plan (July 2017), SCAG, and CVAG. Alternatives 2 and 3 address local and regional circulation issues and the project roadways would be consistent with the City and County's roadway standards. Table 2.1 summarizes the project's consistency with pertinent policies from these plans and programs.

Table 2.1: Consistency with State, Regional, and Local Plans and Programs

Agency/Plan Component	No-Build Alternative	Build Alternative 2	Build Alternative 3
Southern California Association of Governments 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy			
The Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) is a long-term (minimum of 20 years) vision document that outlines transportation goals, objectives, and policies for the SCAG region.	**Inconsistent:** The No-Build Alternative would not construct a new interchange at I-10 and Portola Avenue and would be inconsistent with the 2016-2040 RTP/SCS and listed Project No. RIV031209). If the No-Build Alternative was selected, the 2016-2040 RTP/SCS would need to be updated.	**Consistent:** Build Alternative 2 would implement Project No. RIV031209 which is listed as a needed transportation improvement project in the SCAG 2016-2040 RTP/SCS. Construction of a new interchange at I-10 and Portola Avenue is part of the regional transportation planning for the City of Palm Desert and Riverside County.	**Consistent:** Build Alternative 3 would implement Project No. RIV031209 which is listed as a needed transportation improvement project in the SCAG 2016-2040 RTP/SCS. Construction of a new interchange at I-10 and Portola Avenue is part of the regional transportation planning for the City of Palm Desert and Riverside County.
Southern California Association of Governments 2017 Federal Transportation Improvement Program			
SCAG's 2017 Federal Transportation Improvement Program (FTIP) lists transportation projects proposed over a six-year period, from fiscal year 2016–2017 to 2021–2022. The FTIP must include all projects that require federal funding as well as all regionally significant transportation projects for which federal approval (by the FHWA or FTA) is required, regardless of funding source.	**Inconsistent:** The No-Build Alternative would not be consistent with the 2016-2040 RTP/SCS which includes construction of the I-10 Portola Avenue New Interchange Project. If the No-Build Alternative was selected, the 2017 FTIP would need to be updated.	**Consistent:** Build Alternative 2 would be an implementation of Project No. RIV031209 which is listed in the 2017 FTIP as an approved project. Construction of a new interchange at I-10 and Portola Avenue is part of the regional transportation planning for the City of Palm Desert and Riverside County.	**Consistent:** Build Alternative 2 would be an implementation of Project No. RIV031209 which is listed in the 2017 FTIP as an approved project. Construction of a new interchange at I-10 and Portola Avenue is part of the regional transportation planning for the City of Palm Desert and Riverside County.
Coachella Valley Multiple Species Habitat Conservation Plan (2007)			
Section 7.3**:** "The road projects in [the table of Regional Road Projects] will comply with all applicable avoidance, minimization, and mitigation measures described in Section 4.4 [of the CVMSHCP].	**Inconsistent:** "Portola Avenue I-10 Interchange" is listed in the CVMSHCP Regional Road Projects (Table 7-3, page 7-10).	**Consistent:** "Portola Avenue I-10 Interchange" is listed in the CVMSHCP Regional Road Projects (Table 7-3, page 7-10). The project would be consistent with CVMSHCP mitigation.	**Consistent:** "Portola Avenue I-10 Interchange" is listed in the CVMSHCP Regional Road Projects (Table 7-3, page 7-10). The project would be consistent with CVMSHCP mitigation.
City of Palm Desert General Plan, Mobility Element			
Policy 1.1: Complete Streets. Consider all modes of travel in planning, design, and construction of all transportation projects to create safe, livable, and inviting environments for pedestrians bicyclists, motorists and public transit users of all ages and capabilities.	**Inconsistent:** The No-Build Alternative would not construct a new interchange at I-10 and Portola Avenue, which would not meet the current or future traffic and transportation demands of the City from motorists, not develop pedestrian and bicycle facilities, and would not provide opportunities for the local transit agency to provide transit service within the project area.	**Consistent:** A new interchange at I-10 and Portola Avenue would be constructed, which would address current and future traffic and transportation demands of the City from motorists, and which would further develop an inviting environment for pedestrians and bicyclists, and which would provide additional opportunities for the local transit agency to provide transit service within the project area.	**Consistent:** A new interchange at I-10 and Portola Avenue would be constructed, which would address current and future traffic and transportation demands of the City from motorists, and which would further develop an inviting environment for pedestrians and bicyclists, and which would provide additional opportunities for the local transit agency to provide transit service within the project area.

Table 2.1: Consistency with State, Regional, and Local Plans and Programs (continued)

Agency/Plan Component	No-Build Alternative	Build Alternative 2	Build Alternative 3
City of Palm Desert General Plan, Mobility Element			
Policy 1.3: Facility Service Levels. Determine appropriate service levels for all modes of transportation and develop guidelines to evaluate impacts to these modes for all related public and private projects.	**Inconsistent:** The City's analysis of future conditions at the Monterey Avenue and Cook Street/I-10 interchanges demonstrates the need for the Portola Avenue Interchange to reduce delay and poor levels of service at the Cook Street and Monterey Avenue Interchanges..	**Consistent:** The City's analysis of future conditions at the Monterey Avenue and Cook Street/I-10 interchanges demonstrates the need for the Portola Avenue Interchange. Implementation of this project would improve the long term functionality of the I-10 Corridor within the City of Palm Desert.	**Consistent:** The City's analysis of future conditions at the Monterey Avenue and Cook Street/I-10 interchanges demonstrates the need for the Portola Avenue Interchange. Implementation of this project would improve the long term functionality of the I-10 Corridor within the City of Palm Desert.
Policy 1.4: Transportation Improvements. Consider improvements that add roadway or intersection capacity for vehicles only after considering improvements to other modes of travel.	**Inconsistent:** The No-Build Alternative could cause pedestrians and bicyclists to travel farther to cross I-10.	**Consistent:** As the proposed new interchange provides additional pedestrian and bicycle facilities over I-10.	**Consistent:** As the proposed new interchange provides additional pedestrian and bicycle facilities over I-10.
Policy 1.5: Transportation Network Consistency. Perform a formal evaluation of any transportation projects to verify consistency with the goals and policies in the General Plan prior to approving funding for those projects.	**Inconsistent:** The No-Build Alternative would not meet the current or future traffic and transportation demands of the City.	**Consistent:** The proposed new interchange would improve the existing transportation system and would alleviate current and future traffic demand on the Monterey Avenue and Cook Street Interchanges. The project would also provide additional access to I-10.	**Consistent:** The proposed new interchange would improve the existing transportation system and would alleviate current and future traffic demand on the Monterey Avenue and Cook Street Interchanges. The project would also provide additional access to I-10.
Policy 1.6: Emergency Vehicle Access. Evaluate the impacts of transportation network changes on emergency vehicle access and response times.	**Inconsistent:** The No-Build Alternative would cause traffic delays to increase on Monterey Avenue and Cook Street over I-10.	**Consistent:** The proposed new interchange would provide additional access to I-10 as well as additional access over I-10 and would alleviate congestion at the Cook and Monterey Interchanges.	**Consistent:** The proposed new interchange would provide additional access to I-10 as well as additional access over I-10 and would alleviate congestion at the Cook and Monterey Interchanges.

Table 2.1: Consistency with State, Regional, and Local Plans and Programs (continued)

Agency/Plan Component	No-Build Alternative	Build Alternative 2	Build Alternative 3
City of Palm Desert General Plan, Mobility Element			
Goal 3: Pedestrian Facilities. Integrated pedestrian pathways that connect residences, businesses, and education and community uses.	**Consistent:** Existing sidewalks would continue to exist at existing roadways, including Portola Avenue and Dinah Shore Drive.	**Consistent:** Sidewalks are included in the project design on Portola Avenue and Varner Road to provide continuous and convenient pedestrian access over I-10.	**Consistent:** Sidewalks are included in the project design on Portola Avenue and Varner Road to provide continuous and convenient pedestrian access over I-10.
Policy 3.1: Pedestrian Network. Provide a safe and convenient circulation system for pedestrians that include sidewalks, crosswalks, places to sit and gather, appropriate street lighting, buffers from moving vehicles, shading, and amenities for people of all ages.	**Consistent:** Existing sidewalks would continue to exist at existing roadways, including Portola Avenue and Dinah Shore Drive.	**Consistent:** Sidewalks are included in the project design on Portola Avenue and Varner Road to provide continuous and convenient pedestrian access over I-10 and include crosswalks, street lighting, and ADA compliance.	**Consistent:** Sidewalks are included in the project design on Portola Avenue and Varner Road to provide continuous and convenient pedestrian access over I-10 and include crosswalks, street lighting, and ADA compliance.
Policy 3.3: Roadway Sidewalks. Where feasible, provide adequate sidewalks along all public roadways.	**Consistent:** Existing sidewalks would continue to exist at existing roadways, including Portola Avenue and Dinah Shore Drive.	**Consistent:** Sidewalks are included in the project design on Portola Avenue and Varner Road to provide continuous and convenient pedestrian access over I-10.	**Consistent:** Sidewalks are included in the project design on Portola Avenue and Varner Road to provide continuous and convenient pedestrian access over I-10.
Goal 6: Sustainable Transportation. A transportation network that can be built, operated, and maintained within the City's resource limitations.	**Consistent:** The City can maintain the current system within their resource limitations.	**Consistent:** The proposed new interchange would be maintained by the state and a portion of the project north of I-10 outside of Caltrans right-of-way would be operated and maintained by Riverside County. There would be a negligible change in City owned facilities.	**Consistent:** The proposed new interchange would be maintained by the state and a portion of the project north of I-10 outside of Caltrans right-of-way would be operated and maintained by Riverside County. There would be a negligible change in City owned facilities.

Table 2.1: Consistency with State, Regional, and Local Plans and Programs (continued)

Agency/Plan Component	No-Build Alternative	Build Alternative 2	Build Alternative 3
Riverside County General Plan (Western Coachella Valley Area Plan and Circulation Element)			
WCVAP 17.1: Design and develop the vehicular roadway system, Circulation [in the WCVAP], and in accordance with the Functional Classifications section and standards specified in the General Plan Circulation Element.	**Inconsistent:** Without the project, LOS is projected to worsen at the adjacent Monterey Avenue and Cook Street Interchanges.	**Consistent:** The Circulation map from the WCVAP includes an interchange at I-10/Portola Avenue, including realignment of Varner Road. Construction of this project would implement the planned new interchange at I-10 and Portola Avenue.	**Consistent:** The Circulation map from the WCVAP includes an interchange at I-10/Portola Avenue, including realignment of Varner Road. Construction of this project would implement the planned new interchange at I-10 and Portola Avenue.
WCVAP 17.2: Maintain the County's roadway Level of Service standards as described in the General Plan Circulation Element.	**Inconsistent:** Without the project, LOS is projected to worsen at the adjacent Monterey Avenue and Cook Street Interchanges.	**Consistent:** The new interchange would relieve forecast congestion and improve LOS at the adjacent Monterey Avenue and Cook Street Interchanges.	**Consistent:** The new interchange would relieve forecast congestion and improve LOS at the adjacent Monterey Avenue and Cook Street Interchanges.
WCVAP 17.3: Consider the following regional and community wide transportation options when developing transportation improvements in the WCVAP. a. Construct a new interchange on I-10 at Portola Avenue.	**Inconsistent:** No-Build Alternative would not construct a new interchange at I-10.	**Consistent:** Alternative 2 would construct a new interchange at I-10.	**Consistent:** Alternative 3 would construct a new interchange at I-10.
Policy C 1.1: Design the transportation system to respond to concentrations of population and employment activities, as designated by the Land Use Element and in accordance with the Circulation Plan.	**Inconsistent:** The No-Build Alternative would not provide needed improvements to the County's access to I-10 and would not support designated land uses in the vicinity of the project area.	**Consistent:** The project responds to planned development and land uses in the area by providing improved access and levels of service on the regional roadway system.	**Consistent:** The project responds to planned development and land uses in the area by providing improved access and levels of service on the regional roadway system.
Policy C 1.5: Evaluate the planned circulation system as needed to enhance the highway network to respond to anticipated growth and mobility needs.	**Inconsistent:** The No-Build Alternative would not provide needed improvements to the County's access to I-10.	**Consistent:** The data in the traffic analysis demonstrates a need for additional access to I-10 and to improve regional traffic operations. Implementation of the proposed project is consistent with this policy.	**Consistent:** The data in the traffic analysis demonstrates a need for additional access to I-10 and to improve regional traffic operations. Implementation of the proposed project is consistent with this policy.
Policy C 1.6: Cooperate with local, regional, state, and federal agencies to establish an efficient circulation system.	**Consistent:** In conjunction with development of the proposed new interchange project on I-10, the County has cooperated with all applicable local, regional, state, and federal agencies.	**Consistent:** In conjunction with development of the proposed new interchange project on I-10, the County has cooperated with all applicable local, regional, state, and federal agencies. Implementation of the project is part of the effort to develop an efficient circulation system.	**Consistent:** In conjunction with development of the proposed new interchange project on I-10, the County has cooperated with all applicable local, regional, state, and federal agencies. Implementation of the project is part of the effort to develop an efficient circulation system.

Table 2.1: Consistency with State, Regional, and Local Plans and Programs (continued)

Agency/Plan Component	No-Build Alternative	Build Alternative 2	Build Alternative 3
Riverside County General Plan (Western Coachella Valley Area Plan and Circulation Element)			
Policy C 3.19: Coordinate with Caltrans to identify and protect ultimate freeway right of way, including those for exclusive use by transit and those necessary for interchange expansion. Ultimate right of way needs shall be based upon build out traffic forecasts, with facilities sized to provide the appropriate level of service [LOS] per state highway planning criteria. The County, in consultation with Caltrans, will undertake a program to acquire such areas where additional right of way is required.	**Inconsistent:** The County has consulted with each of these agencies during the development of this project. With this alternative no improvements will be made, in terms of right of way or otherwise and therefore is inconsistent:	**Consistent:** Where new right of way is required, the project proposes to acquire the ultimate right of way for I-10. The project includes no specific focus on rights-of-way for exclusive use by transit, and that in this regard there is no transit activity within the project area as applicable.	**Consistent:** Where new right of way is required, the project proposes to acquire the ultimate right of way for I-10. The project includes no specific focus on rights-of-way for exclusive use by transit, and that in this regard there is no transit activity within the project area as applicable.

Build Alternatives 2 and 3 are both consistent with state, regional, and local plans. No avoidance, minimization, and/or mitigation measures are required. Alternative 1 (No-Build) would be inconsistent with City of Palm Desert Goals 1, and Policies 1.1, 1.3, 1.4, 1.5, 1.6, and 1.7. It would further be inconsistent with Riverside County General Plan Policies WCVAP 17.1, 17.2, 17.3, C 1.1 and C1.5.

Avoidance, Minimization and/or Mitigation Measures

No measures required.

2.1.1.3 Parks and Recreational Facilities

There are no public parks located within or directly adjacent to the study area for the proposed project. Numerous golf courses are located within a mile of the project site including the Tri-Palm Country Club (directly adjacent to the North), Ivey Ranch Country Club (directly adjacent to the East), Classic Club (0.36 miles South East), The Club at Shenandoah Springs (0.47 miles North East) and Marriot's Shadow Ridge Golf Club (0.7 Miles West). There are two small parks which have recently been developed as part of the University Park Area Plan located between a half mile and a mile south of the eastern most edge of the project area. These include the University Dog Park and University Park East. These facilities are shown in Figure 2.3.

The closest public park facility is the City of Palm Desert University Dog Park, 0.63 miles from the project area. Based on the proposed project's distance from this park, no direct or indirect impacts are anticipated for any of the alternatives being considered. There are no Section 4(f) resources located within 0.5 mile of the project limits and the proposed project will not result in any use of a Section 4(f) Resource; therefore, a Section 4(f) Evaluation is not required for this project.

Due to the distance from the project area, the Classic Club Golf Course and the Club at Shenandoah Ridge are not expected to be directly impacted during construction.

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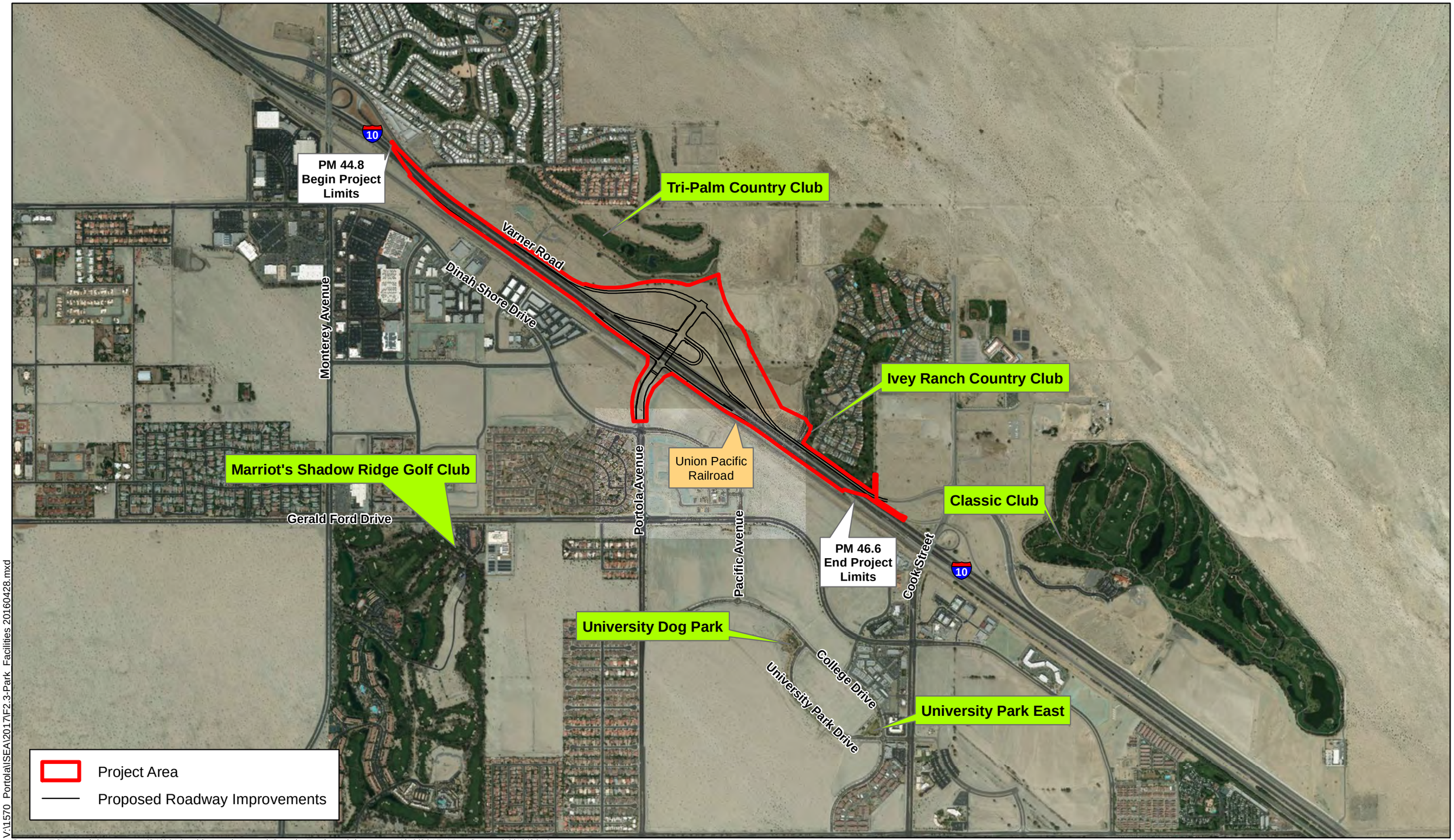

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Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

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FIGURE 2.3
Parks and Recreational Facilities

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The Tri-Palm Country Club is located northwest of the new proposed interchange and has been developed in conjunction with a residential development (see Figure 2.3). The closest direct access to the Tri-Palm Country Club is off of Monterey Avenue or using Boca Chica Trail (see Figure 2.8 sheet 1 of 3) via Varner Road. The proposed interchange project would realign Varner Road to the north, closer to the Tri-Palm Country Club golf course; however, the project has been designed such that no direct impacts to the golf course would occur. Roadway construction would not encroach onto private golf course property and temporary construction easements would not be required. Both Build Alternatives would not result in any impacts on the Tri-Palm Country Club.

The Ivey Ranch Country Club is located northeast of the new proposed interchange and has been developed in conjunction with a residential development (see Figure 2.3). The closest direct access to the Ivey Ranch Country Club is off of Cook Street or using Jack Ivey Drive via Varner Road (See Figure 2.4). The proposed interchange project would realign Varner Road to the north, closer to the Ivey Ranch Country Club golf course; however, the project has been designed such that no direct impacts to the golf course would occur. Roadway construction would not encroach onto private golf course property. During construction, access to the Ivey Ranch Country Club would remain available from Cook Street the closest interchange at I-10 located to the east. Access to the Ivey Ranch Country Club is expected to be restricted to the west along Varner Road during construction of the Portola Avenue Interchange. Implementation of a Traffic Management Plan would minimize potential construction related traffic delays associated with accessing the Ivey-Ranch Country Club or residences. Both Build Alternatives would not result in any substantial impacts associated with access to the Ivey Ranch Country Club although access from the east along Varner Road may be restricted during construction requiring a detour. Any such potential temporary access impacts would be as limited in duration as possible.

To avoid or minimize the potential for construction to result in temporary impacts to air quality, or to result in temporary noise impacts to the golf courses located at Tri-Palm Country Club and Ivey Ranch Country, respectively, measures AQ-1 through AQ-10, detailed on pages 177-178 and measure NOI-1, detailed on page 203 will be implemented during construction.

Avoidance, Minimization and/or Mitigation Measures

No measures are required.

2.1.2 Growth

Regulatory Setting

The Council on Environmental Quality (CEQ) regulations, which established the steps necessary to comply with the National Environmental Policy Act (NEPA) of 1969, requires evaluation of the potential environmental effects of all proposed federal activities and programs. This provision includes a requirement to examine indirect consequences, 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…"

First Cut Screening

Caltrans in conjunction with FHWA and the U.S. Environmental Protection Agency developed a guidance document, Guidance for Preparers of Growth-Related, Indirect Impact Analysis (May 2006). The following is based on the referenced guidance.

The first step in determining the likely growth-potential for a roadway improvement project is to perform a "first cut screening" which focuses on answering the following questions:

- How, if at all, does the project potentially change accessibility?
- How, if at all, do the project type, project location, and growth-pressure potentially influence growth?
- Is project-related growth "reasonably foreseeable" as defined by NEPA?
- If there is project-related growth, how, if at all, will it impact resources of concern?

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

Both Build Alternatives would have the same changes to accessibility; therefore, this discussion will focus on the project versus no project. The proposed project would construct a new interchange at Portola Avenue and I-10 providing new access between the City of Palm Desert to the south, unincorporated Riverside County to the north, and the I-10 freeway. The new proposed Portola Interchange is located between the Monterey Avenue Interchange to the west and the Cook Street Interchange to the east and is approximately 1 mile from each. As such, the project will change accessibility by providing a more direct route onto or over the freeway.

On the north side, because the project terminates at Varner Road in a T-interchange configuration, change in access will be limited to providing a midpoint option (between Monterey Avenue and Cook Street) for access to and from the Interstate.

In consideration of existing as well as planned residential and business development on the south side of I-10, because the project will provide direct access to and from I-10 for the existing local roads, exiting travel patterns on the local roads between Monterey and Cook may change. The new direct access to and from I-10 may potentially draw additional traffic to this part of the local road system.

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

The City of Palm Desert Planning Department was consulted on June 14, 2015 and the development projects listed in Table 2.2 are located within the interchange's community study area.

Table 2.2: Proposed Palm Desert Development in the Project Vicinity

#	Project Name	Location	Project Description	Status
1	Ponderosa II	City of Palm Desert	A Precise Plan and a Tentative Tract Map to subdivide 30+ acres into 111 single-family home lots and one 8+ acre lot for future multi-family development.	Tentative Tract Map and Precise Plan Approved by the City on 12/2/2014 Expiration 12/2/2016
2	Millennium Palm Desert, Case Number DA/GPA/CZ/EA 14-332 TPM 36792 TTM 36793	City of Palm Desert	A Development Agreement, a Specific Plan, a General Plan Amendment and a Change of Zone to establish land use designations, a Tentative Parcel Map to establish nine (9) parcels within the Specific Plan Area, and a Tentative Tract Map to subdivide 38+ acres into 166 single-family home lots, located on 152 acres north of Gerald Ford Drive, south of Union Pacific Railroad, east of Portola Avenue and west of Technology Drive. This project also includes an extension of Dinah Shore Drive from Portola Avenue to Gerald Ford Drive.	Development Agreement, Specific Plan, General Plan Amendment, Zone Change, and Tentative Parcel Map Approved by the City on 3/26/2016 Currently under Phased Construction. Expiration: 4/26/2036
3	University Park Case Number DA 06-02, TT 34055	City of Palm Desert	University Park: Approval of a Tentative Tract Map for 244 single-family lots on 42.2 acre site.	Tentative Tract Map Approved by the City on 4/4/2006 Expiration: 3/8/2017
4	University Park Case Number DA 06-02 TT 34057	City of Palm Desert	University Park: Approval of Tentative Tract Map for 141 single-family homes.	Tentative Tract Map Approved by the City on 4/4/2006 Expiration: 3/8/2017
5	University Park, Case Number DA 06-02 TT 34074	City of Palm Desert	University Park: Approval of a Tentative Tract Map for 72 single-family homes.	Tentative Tract Map Approved by the City on 4/4/2006 Expiration: 3/8/2017

Table 2.2: Proposed Palm Desert Development in the Project Vicinity (continued)

#	Project Name	Location	Project Description	Status
6	University Park Case Number PP 06-05 Amendment #1 HTE 10-434 TT 36342	City of Palm Desert	University Park: Approval of an amendment to approved Tentative Tract map 36342 for 196 residential homes to allow: 11 condominium lots totaling 78 condominium units; 69 single-family attached homes; 49 single-family detached homes; and a private recreation facility.	Tentative Tract Map Approved by the City on 5/4/2011 Expiration: 5/3/2017
7	Desert Wells	City of Palm Desert	Desert Wells: Approval of 270 single-family lots.	Tentative Tract Map Approved by the City on 3/1/2006 Expiration: 3/18/2017
Residential Under Construction Project List				
8	Falling Waters	City of Palm Desert	Falling Waters: Approval of a Change of Zone from Service Industrial to Planned Residential – 13 units per acre for the construction of 247 residential condominium units on a 20-acre site.	Under Construction
9	Dolce Development	City of Palm Desert	Dolce Development: Construction of 159 single-family lots, 11 lots for common area, 2 lots for school district.	Under Construction
10	Gallery	City of Palm Desert	Gallery: Subdivide 87.45 acre site into 237 single-family lots.	Under Construction
11	Spanish Walk	City of Palm Desert	Spanish Walk: Conversion of the former Emerald Desert RV Park into a new planned community consisting of 755-unit residential units, 605 condominium/single-family units (Taylor Woodrow Homes) and 150 Apartment units (Emerald Brook LLC) on 79.6 acres.	Under Construction
12	Encore TT 36554	City of Palm Desert	Tentative Tract Map 36554 to subdivide 10 acres (two existing parcels) into 32 single-family residential lots. The project site is located on the southwest corner of Portola Avenue and Julie Lane at 36-333 Portola Avenue.	Construction Completed (City of Palm Desert, 7/1/2016)
13	Fairfield Inn	City of Palm Desert	A new four story 108-room Fairfield Inn & Suites Marriott Hotel and a future restaurant building pad.	Commercial Development Plan Approved by the City on 4/15/2014 Expiration: 4/15/2016

Table 2.2: Proposed Palm Desert Development in the Project Vicinity (continued)

#	Project Name	Location	Project Description	Status
14	Candlewood Suites	City of Palm Desert	Candlewood Suites: 88-room hotel with a height of 52 feet, and an associated restaurant pad.	Commercial Development Plan Approved by the City on 4/15/2014 Expiration: 4/15/2016
15	Gerald Ford Business Park	City of Palm Desert	Gerald Ford Business Park: A 100,500 square foot mixed use retail/office center with a two-story parking structure, including one 4,500 square foot bank, four retail/restaurant spaces totaling 16,000 square feet, 2 two-story office/retail buildings totaling 62,000 square feet.	Commercial Development Plan Approved by the City on 8/1/2006 Expiration: 8/24/2017
16	Marriott's Shadow Ridge	City of Palm Desert	Marriott's Shadow Ridge: Construction of 999 timeshare and an 18-hole golf course.	Under Construction
17	Valley Center Business Park	City of Palm Desert	Valley Center Business Park: Five (5) two-story buildings totaling 166,000 sq ft on 10.56 acres. Approved 4/04.	Under Construction
18	University Village, Case Number C/Z 03-10 PP 03-11 TPM 31515 DA 03-03 PP 04-04	City of Palm Desert	University Village: Construction of 111,800 sq ft. Retail, 3-story 140-room Hotel, 122,000 sq ft single-story garden office complex Approved 04/04.	Under Construction
19	Cal State University Master Plan	City of Palm Desert	Cal State University Master Plan: Development of a Cal State San Bernardino Extension Campus and University of Riverside Extension Campus	Under Construction
Nearby Public Works Projects				
20	I-10/Monterey Avenue Interchange Improvement Project	City of Palm Desert	Widening the existing westbound on-ramp, signal modification, and ramp metering.	Construction Completed March 2015.

Source: City of Palm Desert, 2015-2016

Notes: Riverside County Transportation Planning was consulted on April 28, 2016 for information about any development projects within the community study area (see Figure 2.4). One residential tentative subdivision map was identified, TR 2933, a 187 acre 650 dwelling unit development located north of Varner Road and West of Cook Street; however, this project is no longer active and the tentative subdivision map has been withdrawn from County review.

The construction of a new full service interchange at I-10 and Portola Avenue is anticipated to provide improved accessibility for both regional and local travel. Table 2.2 identifies reasonably foreseeable projects, several of which are in construction. These projects are not dependent on the proposed new interchange, as demonstrated by their progress well before the new interchange will be open to traffic, however the new interchange is expected to accommodate the expected increased traffic that is expected to result from the planned development.

The I-10/Portola Avenue new interchange project is consistent with the City of Palm Desert's Comprehensive General Plan Circulation Elements as well as the County of Riverside's General Plan Circulation Elements.

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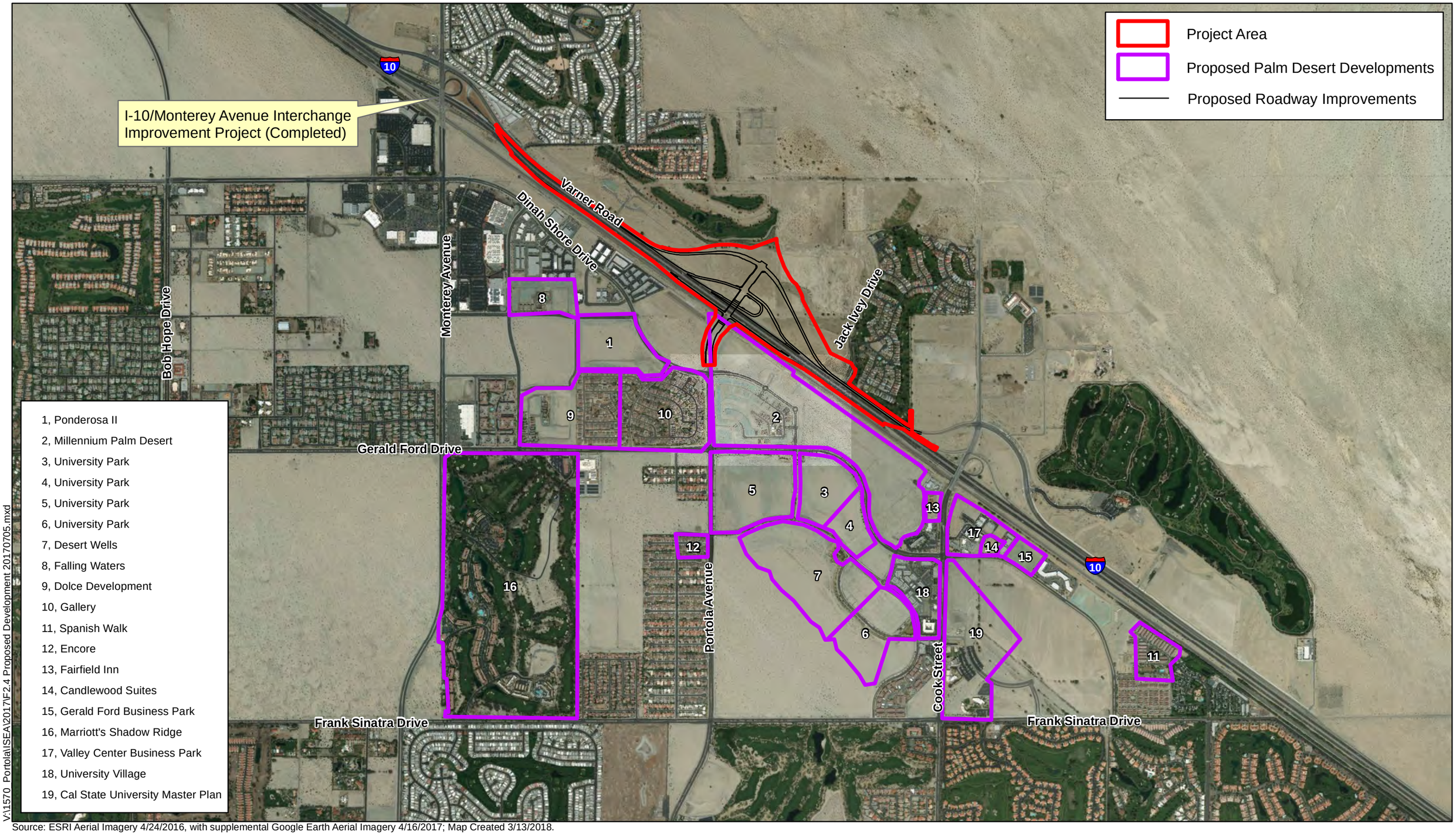

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Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

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FIGURE 2.4
Proposed Development in the Project Vicinity

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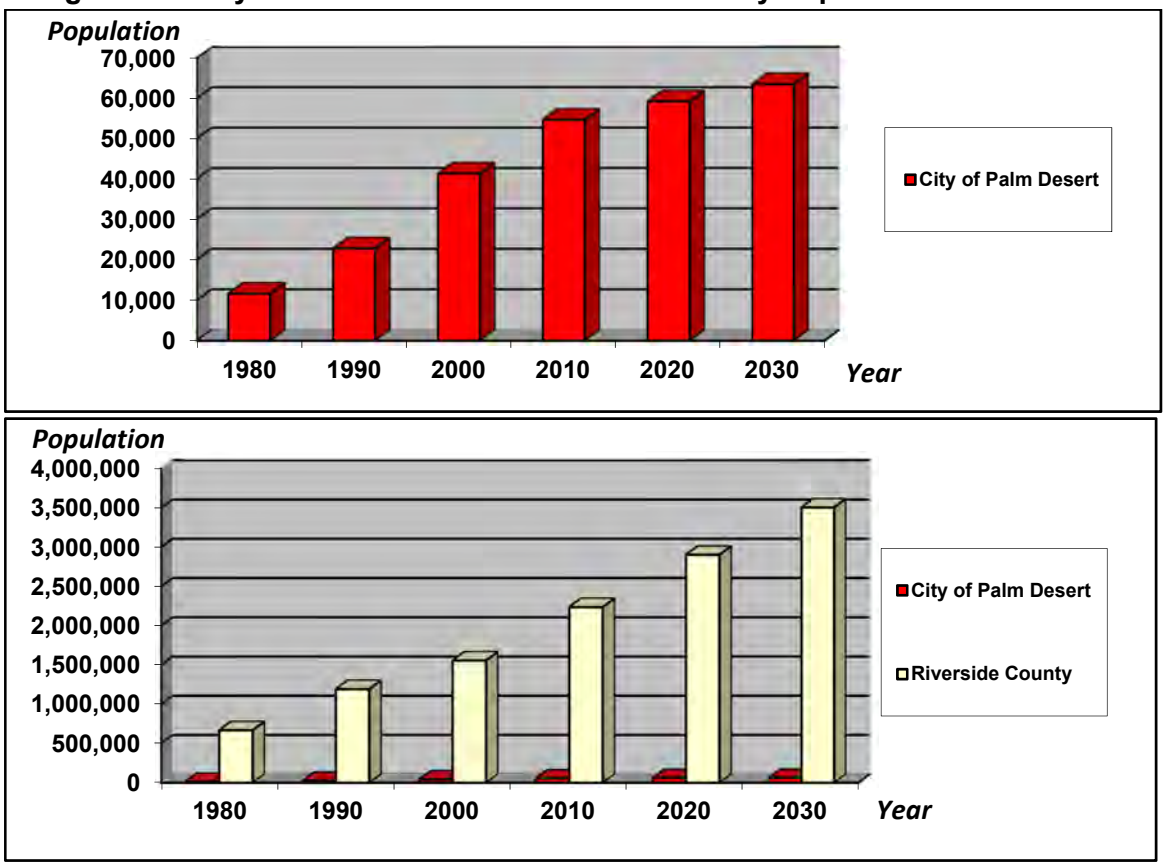
According to the Census Bureau, the city's population totaled 11,600 in 1980. The population rose by approximately 356 percent over the next 20 years to 41,300 in 2000 and by 2010, the City's population was 48,443. SCAG projects that the rate of population growth will continue over the next three decades; by 2030, the population is expected to rise by 153 percent to 63,400. The United States Census Bureau reports that population in Riverside County totaled approximately 669,800 in 1980. In the 20 years that followed, the population increased by almost 212 percent to approximately 1,420,700 in 2000 and by 2010, the population nearly doubled to 2,189,641. Attracted by the affordable new housing and the suburban living environment, many people have moved from Los Angeles and Orange Counties to Riverside County. This growth trend is expected to continue. California Department of Finance projects that this growth will continue for the next three decades and that population in the county will increase over 246 percent to 3,507,500 persons by 2030, as shown in Figure 2.5. The interchanges at I-10/Monterey Avenue and I-10/Cook Street would be the most affected by growing congestion. Without additional access, travel demand is focused onto the two arterials with direct freeway access, and the capacity of those arterials is exceeded. This current and anticipated population trend will be supported by the project, providing more access points to and from the freeway, minimizing traffic congestion at the I-10/Monterey Avenue and I-10/Cook Street interchanges.

Figure 2.5: City of Palm Desert and Riverside County Population Growth



Source: U.S. Census Bureau, 2012

The project is consistent with the SCAG 2016-2040 RTP/SCS, the 2017 FTIP, the goals and policies of the City of Palm Desert and County of Riverside General Plans.

In the City of Palm Desert, approximately 60% of the land within a mile south of the project area is available for commercial or residential development. Existing and planned land uses in this area include predominantly Service Industrial, Commercial, and Residential. Over the last two decades, the City of Palm Desert has experienced substantial growth and in this project's community study area, most of the undeveloped land has active planned development projects. The community study area includes nine projects currently under construction, and eight projects have secured City approved development plans. Commercial land uses in the City of Palm Desert are located along I-10 and are concentrated around the Cook Street and Monterey Avenue interchanges. Similar commercial uses are planned to be constructed near the Portola Avenue interchange including three hotels, two business parks, and two university structures. The proposed project would improve accessibility to the freeway and would improve access to commercial properties along Portola Avenue once constructed. Planned and future unplanned residential development would have additional access options for I-10 and traveling over the freeway. However, since development in the City of Palm Desert has been steady over the last two decades, even before conception of this interchange project, it is reasonable to assume that this growth would continue to occur, with or without the proposed project. The project is consistent with the Palm Desert General Plan and would accommodate existing approved and planned development in the Community Study Area.

The portion of this project's Community Study Area north of the freeway is unincorporated Riverside County land. Existing and planned land uses in this area include predominantly Commercial Retail, Medium and High Density Residential, and Open Space associated with the country clubs. Existing development in the Community Study Area includes two residential developments associated with the Tri-Palm Country Club and the Ivey Ranch Country Club. Riverside County identified one development plan in the study area. TR 2933 is a 187 acre 650 dwelling unit development located north of Varner Road and West of Cook Street; however, this project is no longer active and the tentative subdivision map has been withdrawn from County review. The proposed project would improve accessibility to the freeway and would improve access to Palm Desert for existing residences and potential future development projects in Riverside County. This improved accessibility could encourage development in the Community Study Area, particularly commercial retail development which would benefit from being located close to a freeway interchange. Residential development could also be encouraged by improved access to and across the freeway. However, development in this area is not anticipated to be beyond what is already anticipated in the Riverside County General Plan.

Is project-related growth "reasonably foreseeable" as defined by 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 area is governed by the City of Palm Desert Comprehensive General Plan and the Riverside County General Plan. The project would provide operational improvements to the transportation network and would provide a more direct access for local Portola Avenue users to the I-10 freeway.

Development in the affected Palm Desert portion of the study area is expected to occur with or without the project since most of this development is already approved by the City or currently under construction (see Table 2.2) and is a continuation of growth patterns within the City over the last 20 years. Development in the affected Riverside County portion was previously planned for, as evidenced by TR 2933 (650 residential units); however, this development went inactive during the economic slowdown and recession from 2008 to 2013. As economic conditions improve it is anticipated that planned development will return to this area of Riverside County to meet demand for new housing.

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

Because project-related growth is not anticipated as a result the project, the project would not result in growth-related impacts on resources of concern.

Based on the above, no further analysis is necessary for the proposed project.

2.1.3 Community Impacts

2.1.3.1 Community Character and Cohesion

Regulatory Setting

The National Environmental Policy Act of 1969 (NEPA), as amended, established that the federal government use all practicable means to ensure that all Americans have safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 United States Code [USC] 4331[b][2]). The Federal Highway Administration in its implementation of NEPA (23 United States Code [USC] 109[h]) directs that final decisions regarding 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 the 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.

Affected Environment

The study area for community impacts (Figure 2.6) includes the area within the project limits that would be directly affected as well as the populations and communities most likely to experience the potential impacts associated with the project. As shown in Figure 2.1 and Figure 2.2, I-10 is a boundary between the City of Palm Desert and a portion of unincorporated Riverside County. Land immediately adjacent to the project area is largely undeveloped on both sides of I-10. The study area includes portions of three census tracts; census tract 445.05, 445.20, and 449.22 (Figure 2.7).

A community represents a population whose members are rooted in a defined geographic place and whose daily lives involve contact with and dependencies upon other community members. Such contacts and dependencies may be shared at public facilities such as schools, common paths of travel, daily shopping and service areas, or by common social characteristics that are advantageous to establishing formal or informal organizations or activities. Community cohesion is the degree to which residents have a "sense of belonging" to their neighborhood. This includes a strong attachment to neighbors, groups, or institutions, usually as a result of continued association over time.

The census tracts in the study area fall within the City of Palm Desert and the County of Riverside. Census tract 449.22 is south of I-10 within the City of Palm Desert. This area is predominately undeveloped. Adjacent land uses as identified in the City's General Plan are commercial along Dinah Shore Drive and residential near Portola Avenue/Dinah Shore Drive. Census tracts 445.05

and 445.20 are north of I-10 in unincorporated Riverside County. Existing development within the study area consists of two residential sub divisions developed in conjunction with the Tri-Palm Country Club and Ivey Ranch Country Club (which is a 55 years or older community).

These three tracts, the City, and the County as a whole are also examined to establish a context for comparison of distinct community characteristics that may be indicative of a community with strong cohesion. It should be noted that the census tracts being used for this study extend well beyond the study area in order to encompass the undeveloped and developed areas of Riverside County that are north of the I-10 and portions of Palm Desert which are south of I-10. Accordingly, any utilization of information associated with census tract 445.20 required recognizing that only approximately 5-10 percent of this census tract is actually included in the study area.

Age

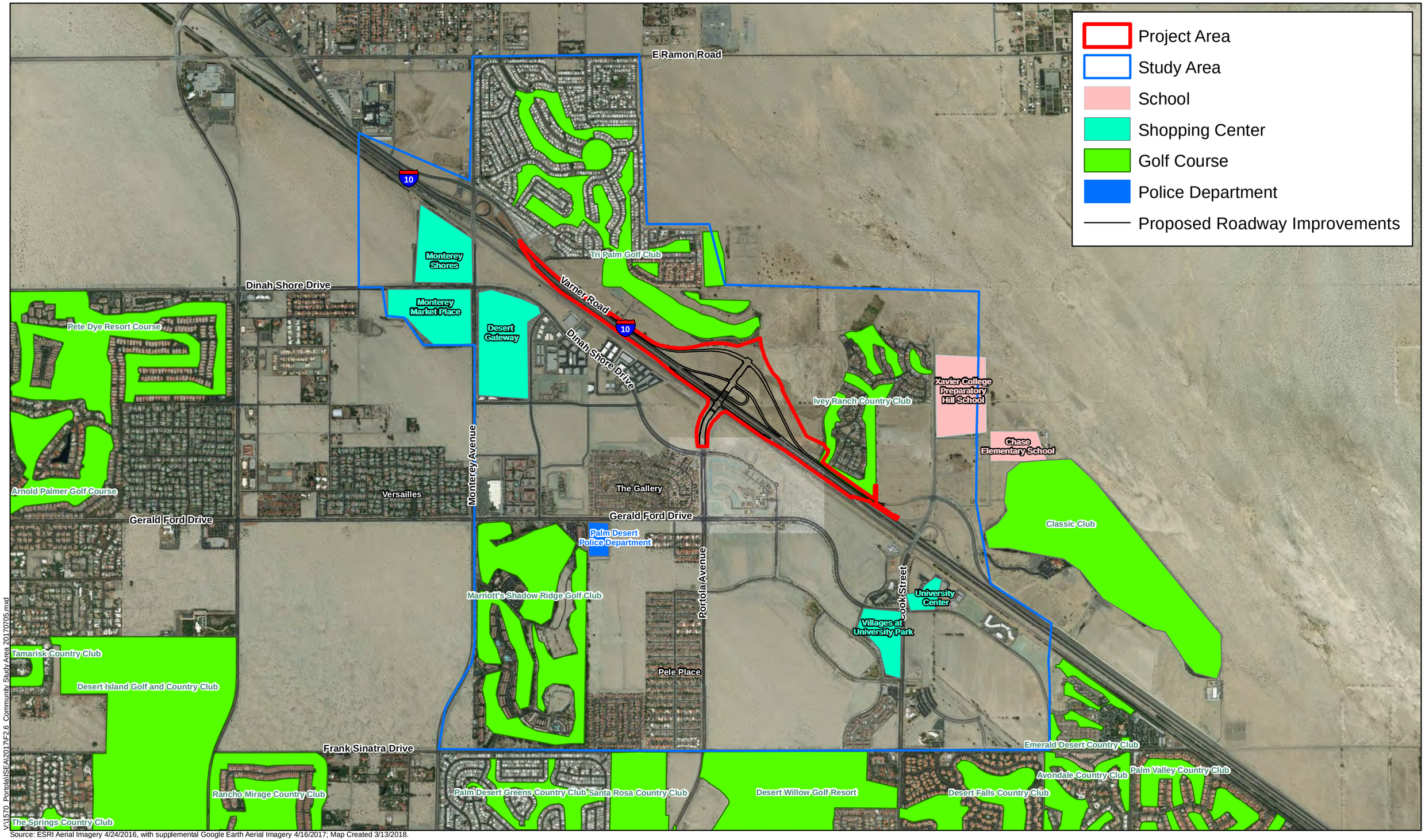
Table 2.3 provides the median age as well as the distribution of information associated with the three census tracts relative to the area where the proposed project is located, the City of Palm Desert, the County of Riverside, and the State of California.

Table 2.3: Age

Age	Study Area				Regional (county)	State
	Census Tract 449.22	Census Tract 445.05	Census Tract 445.20	Palm Desert	Riverside County	California
Median Age	46.2	40.7	50.1	52.1	33.9	35.4
Percent Population <20	23.5%	24.6%	20.1%	17.6%	30.9%	27.5%
Percent Population 20-64	57.3%	54.0%	44.1%	50.1%	56.9%	60.8%
Percent Population ≥ 65	19.2%	21.2%	35.9%	32.4%	12.2%	11.8%

Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey

When comparing the project area within the City limits to Palm Desert as a whole, the City has an older population as a whole. Comparing the project areas within the County of Riverside to the County of Riverside, the percentage of the population above 65 years of age is quite a bit higher than those of Riverside County, with census tract 445.05 being 9 percent higher and census tract 445.20 being 23.7 percent higher. Additionally, there is a notable difference between the 20 years or younger age group; all census tracts in Riverside County have a smaller percentage of young (20 years or younger) residents than the County.



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Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

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FIGURE 2.6
Community Study Area

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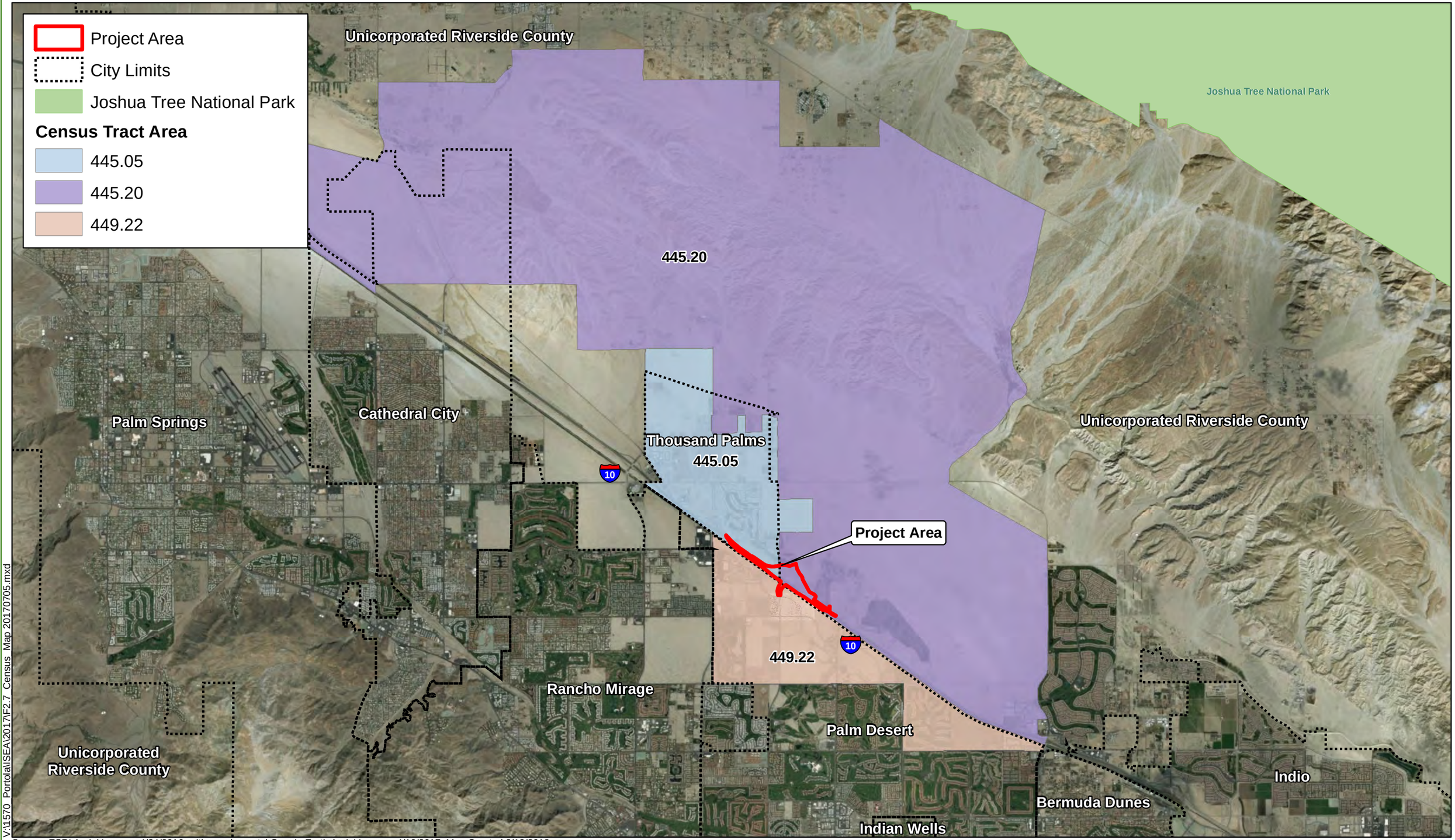

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Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

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FIGURE 2.7
Census Map

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Overall, the populations residing within the study area are older, as a whole, than those of Riverside County, but slightly younger than those of Palm Desert. Populations near the golf courses within the study area are slightly older than those populations not near a country club. It should be noted that census tract 445.20 includes the Ivey Ranch Country Club which is a senior living community, which is reflected in the data provided in Table 2.3.

Housing

Where and how people choose to live, has a large effect on the character and cohesion of a community. For example, traditionally, long-term residents are more likely to feel connected to, and invested in, their communities in comparison to a population that is relatively transient. Moreover, a community composed of residents who own homes rather than those whom rent, are more likely to have a greater sense of cohesion.

Homeownership

Home ownership rates are an indicator of community cohesion. A greater prevalence of homeownership frequently results in increased participation in a community.

Residential uses in the project area are generally located beyond the commercial zone and further from I-10. There are 6,705 housing units in the study area, compared with 37,073 in the City of Palm Desert and 800,707 in Riverside County (Census Bureau 2010).

Table 2.4 shows the total percentage of homeowner occupied residences in relation to home rented residences, according to data from the US Census Bureau. As shown in Table 2.4, within the study area, 72.9 percent of the housing units are owner-occupied. All three census tracts contain existing residences as well as future residential development planned or in construction.

Table 2.4: Percentage of Homeowner Occupied/Home Rented

Percentage of Homeowner Occupied/Home Rented	Study Area				Regional (County)	State
	Census Tract 449.22	Census Tract 445.05	Census Tract 445.20	Palm Desert	Riverside County	California
Percentage of Home Owner Occupied	59.0%	76.5%	83.2%	64.6%	66.5%	55.3%
Percentage of Home Rented	41.0%	23.5%	16.8%	35.4%	33.5%	44.7%

Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey

When looking at census tract 449.22 as it compares to the City of Palm Desert, there are slightly less home owners/more renters, but is within a comparable range. When comparing the census tracts within the County of Riverside to the County of Riverside as a whole, the percentage of home owners is notable higher (10 percent higher in census tract 445.05 and 16.7 percent higher in census tract 445.20)

Overall, census tract 445.20 has the largest proportion of owner-occupied units (83.2 percent), while census tract 449.22 has the lowest (59.0 percent); which could correlate with the location of as well as the ages of the populations within these tracts.

Housing Tenure

Table 2.5 shows the tenure by year that an occupant moved into his or her unit. Of the units in the study area, approximately 67.2 percent of residents within the project area moved into their home after 2000.

As shown in Table 2.5, census tract 449.22 not only has the largest amount of renters, it has the newest population. When comparing census tract 449.22 to the City of Palm Desert, the percentage of home owners who have been in there home prior to 2010 is lower. When comparing renters tenures, when comparing census tract 449.22 to the City of Palm Desert there is a notable percentage difference between renters moving into their homes from 2010 and later (a 14.2 percent more in the observed census tract versus the City.

Table 2.5: Tenure by Year Occupant Moved Into Unit

Tenure by Year Occupant Moved Into Unit	Study Area				Regional (County)
	Census Tract 449.22	Census Tract 445.05	Census Tract 445.20	Palm Desert	Riverside County
Owners					
Moved in 2010 or later	13.0%	5.9%	4.9%	5.9%	7.1%
Moved in 2000 or 2009	26.4%	36.7%	40.0%	30.4%	36.3%
Moved in 1990 or 1999	16.4%	17.0%	24.4%	17.1%	13.8%
Moved in 1980 or 1989	2.7%	13.6%	9.3%	7.7%	5.9%
Moved in 1970 or 1979	0.5%	3.3%	2.5%	2.7%	2.4%
Moved in 1969 or earlier	0.0%	0.0%	2.0%	0.8%	1.1%
Renters					
Moved in 2010 or later	31.0%	3.0%	12.5%	16.8%	13.6%
Moved in 2000 or 2009	10.0%	14.0%	4.3%	17.6%	17.4%
Moved in 1990 or 1999	0.0%	5.8%	0.0%	0.9%	1.8%
Moved in 1980 or 1989	0.0%	0.7%	0.0%	0.1%	0.4%
Moved in 1970 or 1979	0.0%	0.0%	0.0%	0.0%	0.1%
Moved in 1969 or earlier	0.0%	0.0%	0.0%	0.0%	0.1%

Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey

When comparing the two census tracts within Riverside County to Riverside County as a whole, the percentages of home owners whom moved into their homes after 2000 is comparable. When examining home owners whom moved into their homes prior to 1999, there are10.7 percent more residents in census tract 445.05 and 14.7 percent more residents than the County of Riverside.

Overall, the data displayed in the table shows that the study area is on par with Palm Desert as well as Riverside County in terms of tenure for occupants.

Economic Conditions

Community cohesion is often created through frequent personal contact. Oftentimes, this occurs at places of business while working, shopping, or while conducting other commerce-related activities. Shopping and employment centers are often epicenters for interaction among the

community. Additionally, the prosperity of employers where community member's work is linked to other lifestyle factors that affect community character. Occasionally, transportation projects may impact a community's economics by adding or removing businesses or employment opportunities, improving or restricting access to existing businesses and employment, or displacing the labor force.

Employment and Income

An economic condition factor is unemployment. Unemployment levels in Riverside County, the City of Palm Desert, and the census tracts within the study area increased by an average of 2.4 percent from the 2006-2010 America Community Survey to the 2010-2014 American Community Survey conducted by the US Census Bureau. With the exception of census tract 449.22, which saw a 4.0 percent decrease in unemployment between the two American Community surveys, unemployment has risen in the project area 2.6 percent higher than the average unemployment rate for the City of Palm Desert as a whole and 2 percent higher than Riverside County. The labor force in Riverside County in general has decreased by 1.4 percent. In the project area, census tract 445.05 has a labor force which has decreased by 5.5 percent between the two American Community Surveys. The other two census tracts within the project area saw an increase in labor force by an average of 14.4 percent. According to the US Census Bureau, in 2014, there were an estimated total of 514,885 jobs in Riverside County and according to the Bureau of Labor Statistics, in 2014 there were 18,945 jobs within the Coachella Valley.

Table 2.6 shows the 2010-2014 labor force, unemployment, and household income statistics for the study area and each jurisdiction.

Table 2.6: Percentage of Employment Status

Employment Characteristics	Study Area				Regional (County)
	Census Tract 449.22	Census Tract 445.05	Census Tract 445.20	Palm Desert	Riverside County
Employment Status					
Population 16 years or older	4,161	5,408	1,398	42,433	1,723,410
In Labor Force	65.7%	48.3%	55.9%	53.8%	60.9%
Civilian Labor Force	65.7%	48.3%	55.9%	53.8%	60.6%
Employed	61.8%	40.4%	52.1%	48.2%	51.9%
Unemployed	3.9%	7.9%	3.8%	5.6%	8.7%
Armed Forces	0.0%	0.0%	0.0%	0.0%	20.0%
Not in Labor Force	34.3%	51.7%	44.1%	46.2%	39.1%

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

Business Activity

Established businesses in the project study area are generally located along the south side of I-10. Businesses in the study area depend on freeway and roadway access. The largest industries in the Coachella Valley Statistical Area as of 2014 are:

Retail (18.8 percent); hospitality (30.1 percent); education and healthcare services (20.5 percent); professional and business sectors (12.4 percent); and government (16.2 percent) (Labor Market Information Division and California Economic Forecast).

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, thus affecting the character and cohesion of a community, either temporarily or permanently.

Schools

There are three schools within the study area. These schools are: California State University, San Bernardino Palm Desert campus, the University of California Riverside Palm Desert campus, and Xavier College Preparatory High School. Each of these schools are approximately 0.5 miles from the project location.

Community Centers and Public Services

Public services are those provided by the government for the benefit of its citizens. Community centers such as senior centers, libraries, and youth recreation centers can be important resources for a community. Community centers are gathering places that help define a neighborhood and link community members. There are no community centers within a half mile of the project location.

Religious Facilities

Religious facilities serve as important gathering and meeting facilities for communities and are important elements of community character and cohesion. There are 2 religious facilities within one half mile of the project limits. Although these institutions are indicative of a community's character, they are not considered integral to a particular community included in this study.

Overall, sections of the study area have variables which are indicators of community cohesion. Within the study area, there lies an active senior community with a large percentage of home owners. Additionally, an active art and entertainment industry as well as many employed in the educational/healthcare industry suggest stability, reinforcing community cohesion and character. The senior living community, Ivey Ranch Country Club, is a destination for retired seasonal residents whom visit the resort for portions of the year to escape cold weather, returning home usually in late spring. This by definition is a transient community. Additionally, aspects of the study area discourage cohesion such as the limited number of community resources, undeveloped land, and a rise in unemployment. Although there are noteworthy proportional variances amongst the three age range groups, the large proportion of home owners, and the relatively low unemployment rate within the census tracts in relation to the City, County, and State, the data when examined through the prism of the project, suggest that these variances would have little bearing on community character and/or cohesion. By and large, the project is not likely to affect community character or cohesion.

Environmental Consequences

Build Alternatives 2 and 3

Permanent Impacts

The new interchange would provide a new opportunity to access the City of Palm Desert and the portion of unincorporated Riverside County located directly across. No community activity areas, such as parks, community centers, schools, or libraries are located within or immediately adjacent to the project area. The area where the project will be constructed is currently undeveloped although a new residential area is currently being constructed immediately south east of the new

interchange. Neither of the Build Alternatives are expected to result in full acquisition of residential or commercial properties. The proposed project would not result in any division of existing communities and is not expected to otherwise result in any substantial impacts to community character or cohesion.

Temporary Impacts

Construction of either Build Alternative would temporarily disrupt traffic along Varner Road while the road segment is realigned and along I-10 at Portola while the bridge and ramps are constructed. Construction is expected to occur with minimal disruption to the public and railroad. Varner Road would be relocated, and traffic would be shifted to the new roadway. In order to allow over height trucks to detour via the Portola Avenue ramps, the ramps will be constructed prior to any falsework over the I-10 freeway. This will allow construction of the interchange without the need for numerous detours and traffic delays.

Temporary vehicular delays would be minimized through the implementation of a Traffic Management Plan (TMP). See Temporary Impacts discussion within Section 2.1.5 on page 115 for the discussion of the temporary traffic impacts and the TMP that will be implemented to address these impacts.

No-Build Alternative

The No-Build Alternative would result in no changes to the existing project area, no neighborhood disruption, and no impacts to community cohesion.

Avoidance, Minimization and/or Mitigation Measures

No measures are required.

2.1.3.2 Relocations and Real Property Acquisition

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) 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, or sex in compliance with Title VI of the Civil Rights Act (42 United States Code [USC] 2000d, et seq.). Please see Appendix B for a copy of the Department's Title VI Policy Statement.

Affected Environment

The July 2016 Right of Way Data Sheet was utilized in conjunction with preparation of this section of the Environmental Document. Based on the proposed build alternatives as discussed and shown in Chapter 1 of this Environmental Document, and the information included in the Right of Way Data Sheet, Figures 2.8 and 2.9 illustrate the anticipated Right of Way requirements associated with the respective build alternatives.

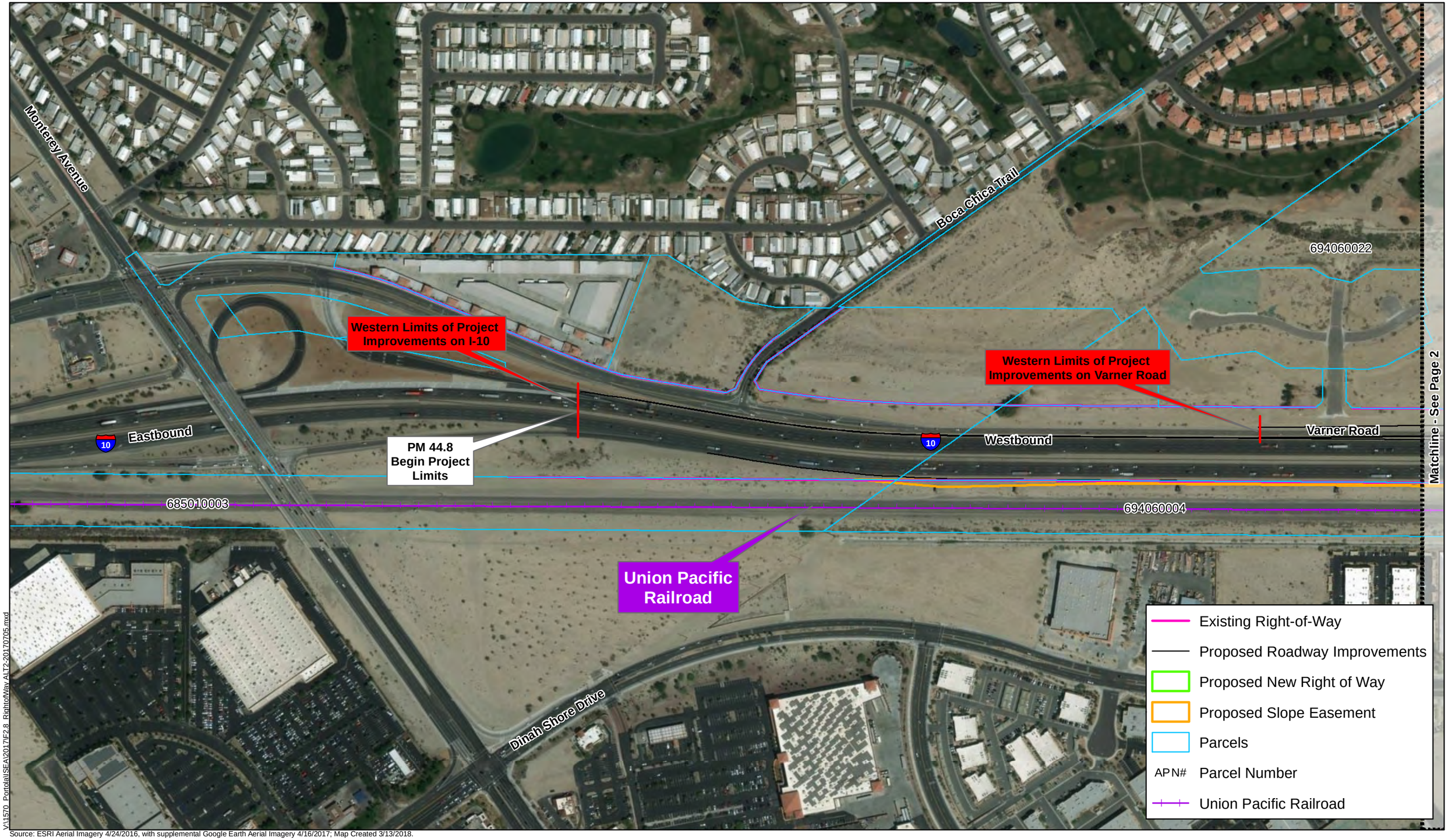
Environmental Consequences

Build Alternative 2

The proposed I-10/Portola Avenue New Interchange project, Build Alternative 2, is anticipated to require the partial acquisition of five parcels for right of way expansion, but no full acquisitions are anticipated to be necessary. In addition to these partial acquisitions, construction of the proposed new interchange will also require slope easements from these five parcels, as well as a slope easement from one additional parcel. A slope easement is a title restriction placed on private property which requires construction and maintenance of a slope to accommodate construction of an adjacent facility that is lower or higher than the elevation of the private property. Slope easements obtained for this project on private property would be maintained by the City of Palm Desert, while those easements obtained on railroad property would be maintained by Caltrans. These areas would remain under the legal ownership of the original property owner. No existing residences or other buildings would be affected. Access, construction and operational easements will be obtained from the railroad right of way (five APNs identified) in order to construct the new interchange facility. A preliminary summary of the properties in the study area that would potentially be impacted by partial acquisition is provided in Table 2.7 and the areas that need to be acquired are shown graphically on Figure 2.8.

Build Alternative 3

The proposed I-10/Portola Avenue New Interchange project, Build Alternative 3, is anticipated to require the partial acquisition of five parcels for right of way expansion, but no full acquisitions are anticipated to be necessary. The project will also require slope easements from these five parcels, as well as a slope easement from one additional parcel (see Build Alternative 2 discussion for a definition of “slope easement”). No existing residences or other buildings would be affected. Access, construction and operational easements will be obtained from the railroad right of way (five APNs identified) in order to construct the new interchange facility. The parcels affected by Build Alternative 3 are identical to those affected by Build Alternative 2, however, because Build Alternative 3 does not include the westbound on-ramp in the northwest quadrant, the area for acquisition would be reduced in one parcel (APN 694-050-012) compared to Build Alternative 2. A preliminary summary of the properties in the study area that would potentially be impacted by partial acquisition is provided in Table 2.8 and the areas that need to be acquired are shown graphically on Figure 2.9.



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Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

0 200 400 600 800 1,000 Feet

FIGURE 2.8
(sheet 1 of 3)
Alternative 2 (Preferred Alternative) Existing and Proposed Right-of-Way

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Northern Limits of Project Improvements on Portola Road

694060023

694050011

694120002

694120011

Jack Ivey Drive

694060022

694050012

694120010

Matchline - See Page 3

10 Westbound

Varner Road

10 Eastbound

694060004

694050004

694120003

694120004

694060006

Union Pacific Railroad

694060007

Southern Limits of Project Improvements on Portola Road

694130027

Dinah Shore Drive

Portola Avenue

Existing Right-of-Way

Proposed Roadway Improvements

Proposed New Right of Way

Proposed Slope Easement

Parcels

APN# Parcel Number

Union Pacific Railroad

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Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

0 200 400 600 800 1,000 Feet

FIGURE 2.8
(sheet 2 of 3)
Alternative 2 (Preferred Alternative) Existing and Proposed Right-of-Way

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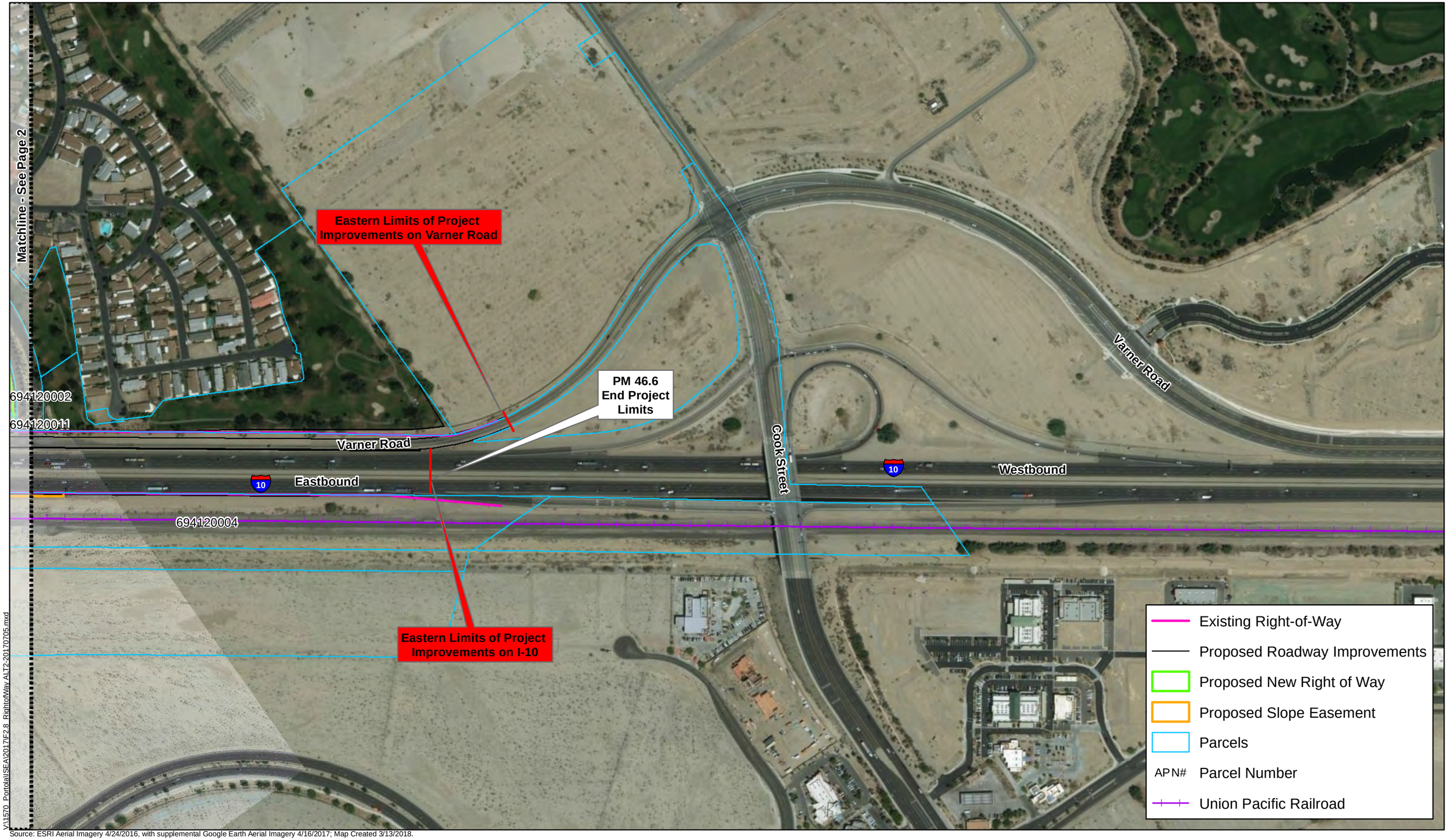

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Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

0 200 400 600 800 1,000 Feet

FIGURE 2.8
(sheet 3 of 3)
Alternative 2 (Preferred Alternative) Existing and Proposed Right-of-Way

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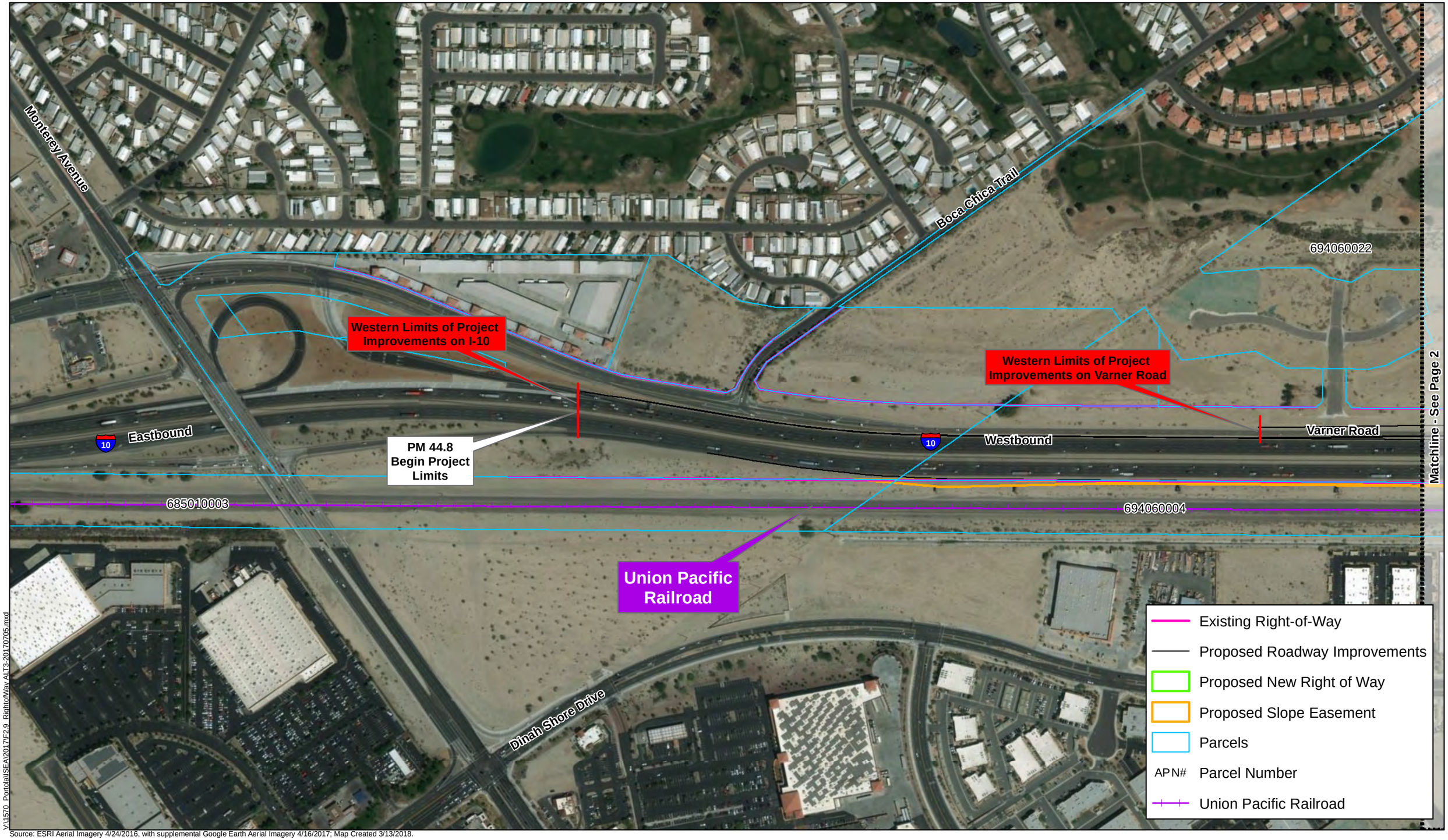

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Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

0 200 400 600 800 1,000 Feet

FIGURE 2.9
(sheet 1 of 3)
Alternative 3 Existing and Proposed Right-of-Way

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Northern Limits of Project Improvements on Portola Road

694060023

694050011

694120002

694120011

Jack Ivey Drive

694060022

694050012

694120010

Varner Road

10 Westbound

10 Eastbound

694060004

694050004

694120003

694120004

694060006

Union Pacific Railroad

694060007

Southern Limits of Project Improvements on Portola Road

694130027

Dinah Shore Drive

Portola Avenue

Matchline - See Page 3

Existing Right-of-Way

Proposed Roadway Improvements

Proposed New Right of Way

Proposed Slope Easement

Parcels

APN# Parcel Number

Union Pacific Railroad

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Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

0 200 400 600 800 1,000 Feet

FIGURE 2.9
(sheet 2 of 3)
Alternative 3 Existing and Proposed Right-of-Way

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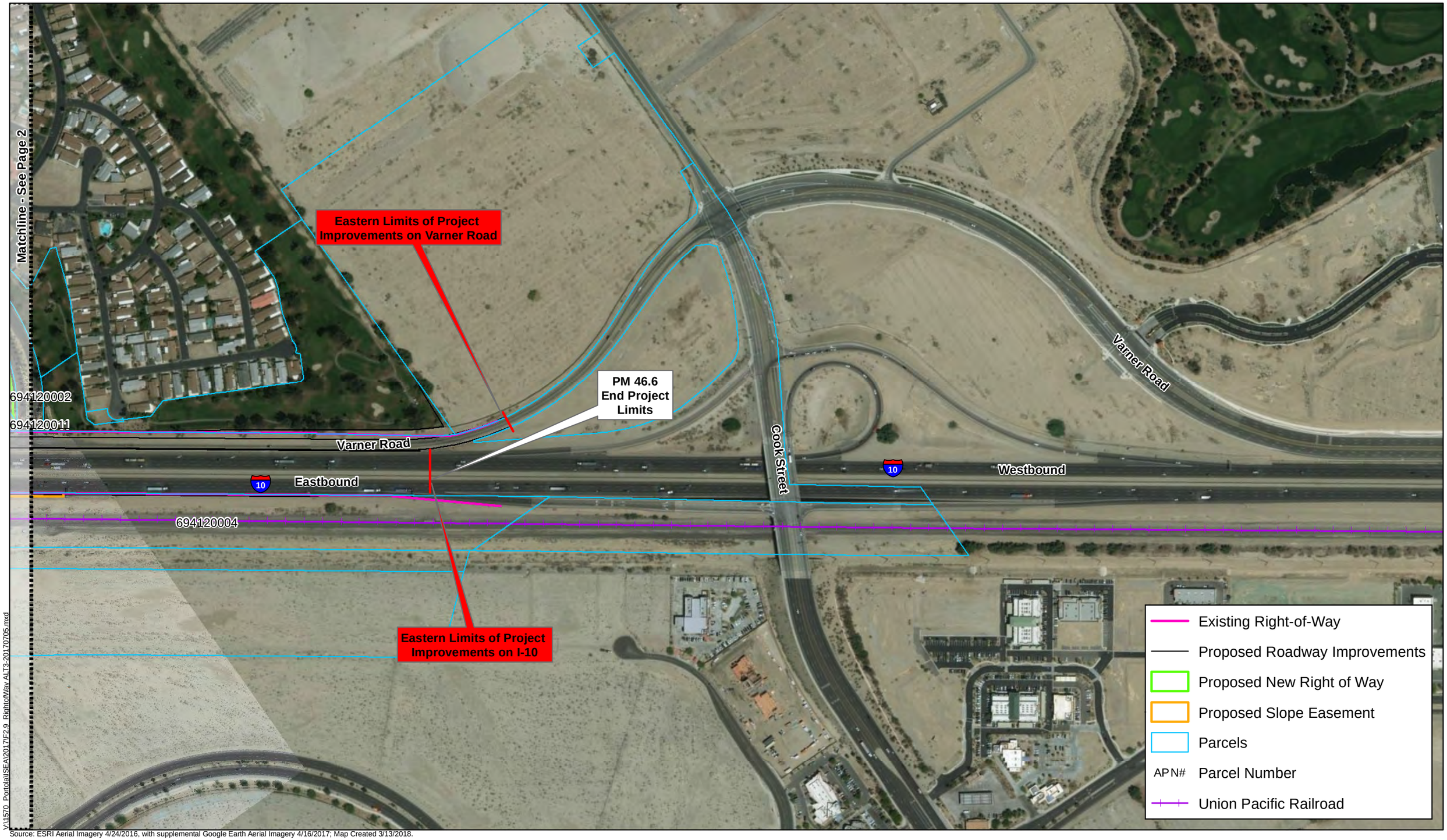

Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

FIGURE 2.9
(sheet 3 of 3)
Alternative 3 Existing and Proposed Right-of-Way

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Table 2.7: Alternative 2 - Potential Partial Acquisitions and/or Easements

APN	Owner	Land Use	Acquisition Area (square feet)	Easements* (square feet)
694-060-022	Springs Shenandoah	Commercial	83,745	17,596
694-060-023	Springs Shenandoah	Commercial	10,790	1,690
694-050-011	Arthofer	Commercial	15,821	0
694-050-012	Arthofer	Commercial	1,249,398	143,272
694-120-002	Arthofer	Commercial	27,747	0
694-120-010	Arthofer	Commercial	434,001	43,110
694-120-011	Arthofer	Commercial	108,799	0
694-130-027	Freeway Lanes	Planned Residential	34,273	47,141
694-060-007	City of Palm Desert	Planned Residential	0	0
685-010-003 694-050-004 694-060-004 694-120-003 694-120-004	Union Pacific Railroad (UPRR)	Railroad	0	239,841

*Note: All easements will be permanent. Easement areas are for slope easements but are also expected to be used as temporary construction easements. All other construction activities are anticipated to occur within existing or new proposed right of way.
Source: Right of Way Data Sheets July 2016, Parcelquest 2017

Table 2.8: Alternative 3 - Potential Partial Acquisitions and/or Easements

APN	Owner	Land Use	Acquisition Area (square feet)	Easements* (square feet)
694-060-022	Springs Shenandoah	Commercial	73,996	17,596
694-060-023	Springs Shenandoah	Commercial	5,764	1,690
694-050-011	Arthofer	Commercial	15,821	0
694-050-012	Arthofer	Commercial	1,105,025	143,529
694-120-002	Arthofer	Commercial	27,747	0
694-120-010	Arthofer	Commercial	434,001	43,110
694-120-011	Arthofer	Commercial	108,799	0
694-130-027	Freeway Lanes	Planned Residential	34,273	47,141
694-060-007	City of Palm Desert	Planned Residential	0	0
685-010-003 694-050-004 694-060-004 694-120-003 694-120-004	Union Pacific Railroad (UPRR)	Railroad	0	239,841

*Note: All easements will be permanent. Easement areas are for slope easements but are also expected to be used as temporary construction easements. All other construction activities are anticipated to occur within existing or new proposed right of way.
Source: Right of Way Data Sheets July 2016, Parcelquest 2017

No-Build Alternative

The No-Build Alternative would result in no need to acquire additional right of way. No impacts would occur.

Avoidance, Minimization and/or Mitigation Measures

The following measure will be implemented.

RRPA-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.

2.1.3.3 Environmental Justice

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 2016, this was $24,300 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. Caltrans' 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.

Affected Environment

In relation to the project area, Table 2.9 shows the racial demographics of census tracts 449.22, 445.05 and 445.20, along with the Palm Desert, Riverside County and California. As shown in Table 2.9, for all three census tracts, the primary racial demographic is white alone. All minorities comprise an average of 42.9 percent of the population.

In comparing census tract 449.22 to the City of Palm Desert, the minority percentage of the population is comparable although the census tract has approximately 5 percent less minority population. In comparing census tract 445.05 to the County of Riverside as a whole, the minority percentage of the population is comparable, although the census tract has approximately 3.5 percent greater minority percentage. For census tract 445.20, the minority percentage of the population is notably less than for the County of Riverside as a whole. Two of the three census tracts have a lower minority population percentage than the State of California as a whole.

Table 2.9: Racial Demographics

Area	Minority					
	White Alone Non-Hispanic	Black Alone Non-Hispanic	Asian Alone Non-Hispanic	Other* Non-Hispanic	Hispanic (All races)**	Minority Percentages
Census Tract 449.22	2,905	93	257	255	481	27.2%
Census Tract 445.05	4,762	96	106	1,584	3,654	61.9%
Census Tract 445.20	1,364	14	27	316	544	39.8%
Palm Desert	39,957	875	1,647	6,215	11,038	33.1%
Riverside County	1,335,147	140,543	130,468	607,193	995,257	58.4%
California	21,453,934	2,299,072	4,861,007	9,002,744	14,013,719	58.4%

Source: U.S. Census Bureau 2010
* "Other" includes those identified as American Indian, Alaskan Native, Native Hawaiian, Other Pacific Islander, Some Other Race, and Two or More Races
**Note: Hispanic (All races) is comprised of people whose origins are from the Dominican Republic, Spain, and Spanish-speaking Central or South American countries. It also includes general origin responses such as "Latino" or "Hispanic." All other categories exclude persons described in the Hispanic (All races) category.

As shown in Table 2.10, in comparing census tract 449.22 to the City of Palm Desert, the population below the poverty level percentage is approximately only half as much. In comparing census tract 445.05 to the County of Riverside as a whole, the population below the poverty level percentage is only slightly over half as much. In comparing census tract 445.20, to the County of Riverside as a whole, the population below the poverty level is approximately the same. In comparing all three census tracts to the State of California, census tract 449.22 and census tract 445.05 have a lower than population below the poverty level percentage than the State of California, while census tract 445.20, is approximately at the same level as the State.

Table 2.10: Poverty Rates

Economic Characteristics	Affected Communities				Region (county)	State
	Census Tract 449.22	Census Tract 445.05	Census Tract 445.20	Palm Desert	Riverside County	California
Median Family Household*	$73,775	$42,600	$51,286	$52,053	$56,592	$61,486
Population below the poverty level** in the past 12 months	4.3%	10.8%	16.6%	10.5%	16.9%	16.4%

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

*Note: A median household income refers to the income level earned by a given household where half of the homes in the area earn more and half earn less. It's used instead of the average or mean household income because it can give a more accurate picture of an area's actual economic status. Median household incomes are frequently used to determine housing affordability

**Note: The U.S. Census defines “Below the poverty level” through the poverty threshold which uses a set of income thresholds that vary by family size and composition to determine the poverty level line. If a family's total income is less than the family's threshold, then that family and every individual in it is considered in poverty. The official poverty level definition uses income before taxes and does not include capital gains or noncash benefits (The poverty guidelines issued by the HHS are a simplified version of the federal poverty thresholds developed by the U.S. Census Bureau)

Environmental Consequences

Build Alternatives 2 and 3

As both Alternatives would involve construction of a new interchange facility at I-10 and Portola Avenue, the effects are rather similar, and expect to have the same impact results, they are discussed together. In considering the above information, the project is not expected to have a disproportionate impact of Environmental Justice populations. Furthermore, any potential temporary impacts to the community such as congestion caused by construction, increased vehicular noise form the new roadway facilities, or other construction related nuisance impacts would affect all users of the transportation facilities equally.

No-Build Alternative

The No-Build Alternative would result in no construction and no changes to the existing transportation facilities. Level of service on the existing freeway and adjacent interchanges would continue to deteriorate and would affect all users of the transportation facility equally.

Avoidance, Minimization and/or Mitigation Measures

Based on the above discussion and analysis, both build alternatives and the no-build alternative, 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.

2.1.4 Utilities/Emergency Services

The analysis of the potential impacts of the proposed I-10/Portola Avenue New Interchange project was based on review of existing utility and service providers and facilities in and immediately adjacent to the project disturbance limits, which determined that several utilities are within the project design footprint.

Affected Environment

Utilities

A complete list of these known utilities in the project area, as well as their type, size, and location is provided in Table 2.11 in the Environmental Consequences section below. The following facilities, power lines, fiber optics, gas lines, and telephone lines may be located within the project design footprint:

- Sprint Telephone Lines
- Time Warner Cable Television Lines
- Coachella Valley Water District Underground Water and Wastewater Utilities
- Southern California Edison Overhead Electrical Lines
- Southern California Gas Company Underground Natural Gas Lines
- Frontier Communications Telephone and Telecom Lines
- Imperial Irrigation District Water and Irrigation Services
- MCI Telephone Lines
- Level 3 Fiber Optic Facilities
- Kinder Morgan Energy Petroleum Pipeline
- Union Pacific Railroad (UPRR)

The UPRR owns and operates two parallel railroad tracks that traverse the project area running parallel to the I-10 freeway. These tracks are located in a 200-foot wide UPRR owned right of way. These rail lines are predominately used for the movement of freight within California and across much of the United States. The proposed new interchange will require bridging over the existing UPRR tracks and right of way. Coordination with UPRR has begun and will continue throughout the development of the project.

Emergency Services

Emergency service providers including hospitals, police services, and fire protection are located in the project area.

In the City of Palm Desert, law enforcement services are provided by the Palm Desert Police Department and the closest police station is located at 73705 Gerald Ford Drive in Palm Desert, approximately 0.5 mile from the project site. Fire protection services are provided by the Riverside County Fire Department and the closest fire stations are located at 71751 Gerald Ford Drive in Rancho Mirage, approximately 1.5 miles from the project site and at 73995 Country Club Drive, approximately 2.5 miles directly south of the project site. Hospital services are provided by several medical groups and providers, the closest of which is Eisenhower Medical Center at 34130 Gateway Drive in Palm Desert, approximately 0.5 mile northwest of the project site and Kaiser Permanente Palm Desert, approximately 0.5 mile southeast of the project site.

In the portion of the project area within Riverside County jurisdiction, the Riverside County Sheriff's Department provides law enforcement services. The closest sheriff station is located at 73705 Gerald Ford Drive in Palm Desert, approximately 0.5 mile from the project site. Fire protection and hospital services for the Riverside County area are the same service providers as those for the City of Palm Desert and the closest facilities are provided in the paragraph above.

Environmental Consequences

Utilities

Build Alternatives 2 and 3

Permanent Impacts

Based on the preliminary design of the project, identification of as-built utility plans, field investigations, and preliminary utility agency coordination, Table 2.11 shows a complete list of the known utilities in the project area and which are expected to require relocation during construction. Utilities will not be adversely affected after construction is completed.

The project has identified definite relocation areas that can be addressed without potholing or additional investigation. Approximately ten overhead power lines will need to be relocated to allow for the realignment of Varner Road, the construction of the new interchange ramps, and extension of Portola Avenue. All utilities located parallel to the existing Varner Road will be realigned with Varner Road. Potholing will need to be done to locate the underground utilities that run parallel to the railroad. Relocation of these utilities may be required to accommodate the foundation for the overcrossing structure and retaining wall. These measures will be coordinated with the utility owners during the design process. Disruptions will be minimized to the best extent possible.

Table 2.11: Utilities and Utility Companies

Utility Company	Description of Utility	Utility Type/Location*	Relocation
Sprint	Telephone	Ericcson Corning Glass; Telecom Fiber Optic Line along Varner Road, I-10	Relocation Required. Location to be determined during final design in coordination with utility company.
Time Warner Cable	Cable Television	Fiber Optic Line along Varner Road, I-10	Relocation Required. Location to be determined during final design in coordination with utility company.
Coachella Valley Water District	Water and Wastewater Services	12" CML/CMC Water Line along Varner Road, I-10	Relocation Required. Location to be determined during final design in coordination with utility company.
		8" DIP Water Line perpendicular to Varner Road, I-10; near Calle Tosca	Location and potential relocation to be determined during final design in coordination with utility company.
		12" CML/CMC Water Line along Sand Rock Road	No relocation anticipated. Utility to be protected in place.
		12" DIP Water Line along Calle Tosca	No relocation anticipated. Utility to be protected in place.
		12" DIP Water Line along Armand Way	No relocation anticipated. Utility to be protected in place.
		8" DIP Water Line along Sweet Well Road	No relocation anticipated. Utility to be protected in place.
		15" VCP Sewer Line along Varner Road, I-10	Relocation Required. Location to be determined during final design in coordination with utility company.
		24" VCP Sewer Line along Varner Road, I-10	Relocation Required. Location to be determined during final design in coordination with utility company.
		10" VCP Sewer Line along Sand Rock Road	No relocation anticipated. Utility to be protected in place.

Table 2.11 Utilities and Utility Companies (continued)

Utility Company	Description of Utility	Utility Type/Location*	Relocation
Coachella Valley Water District	Water and Wastewater Services	12" VCP Sewer Line crossing Varner Road and I-10; by Portola Avenue	Relocation Required. Location to be determined during final design in coordination with utility company.
		8" VCP Sewer Line along Calle Tosca	No relocation anticipated. Utility to be protected in place.
		8" VCP Sewer Line along Armand Way	No relocation anticipated. Utility to be protected in place.
		10" VCP Sewer Line along Portola Avenue	Location and potential relocation to be determined during final design in coordination with utility company.
		12" VCP Sewer Line along Southern Railroad R/W	No relocation anticipated. Utility to be protected in place.
Southern California Edison	Electrical Lines	Overhead Power Lines crossing I-10 and Varner Road by Armand Way	No relocation anticipated. Utility to be protected in place.
		Overhead Power Lines along Portola Avenue and crossing I-10 and Varner Road by Portola Avenue	Relocation Required. Location to be determined during final design in coordination with utility company.
		Overhead Power Lines along I-10 and Southern Railroad ROW	Relocation Required. Location to be determined during final design in coordination with utility company.
Southern California Gas Company	Natural Gas	4" PEM Gas Line along Varner Road, I-10	Relocation Required. Location to be determined during final design in coordination with utility company.
		2" PU Gas Line along Calle Tosca	No relocation anticipated. Utility to be protected in place.
		2" PU Gas Line along Armand Way	No relocation anticipated. Utility to be protected in place.
		4" PEM Gas Line along Jack Ivey Drive	No relocation anticipated. Utility to be protected in place.

Table 2.11 Utilities and Utility Companies (continued)

Utility Company	Description of Utility	Utility Type/Location*	Relocation
Frontier Communications	Telephone	Tele-Comm Line along Varner Road, I-10	Relocation Required. Location to be determined during final design in coordination with utility company.
Imperial Irrigation District	Water and Irrigation Services	Irrigation Line North-East of Varner Road, I-10	Relocation Required. Location to be determined during final design in coordination with utility company.
MCI	Telephone	20" SPPL Fiber Optic Line along Southern Pacific Railroad Line	Location and potential relocation to be determined during final design in coordination with utility company.
Level 3	Fiber Optic Facilities	12" NIS Fiber Optic Line along Southern Pacific Railroad Line	Location and potential relocation to be determined during final design in coordination with utility company.
Kinder Morgan Energy	Petroleum Services	20" OD Line along Southern Pacific Railroad Line	Location and potential relocation to be determined during final design in coordination with utility company.

*Note: Utility Type and Location are based on existing utility as-built plans and direct coordination with utility companies.

Alternatives 2 and 3 for the proposed I-10/Portola Avenue New Interchange project do not include new residential, commercial, or industrial uses that would require additional services or utilities. The proposed I-10/Portola Avenue New Interchange project would not cause the expansion of water and wastewater facilities.

Temporary Impacts

Since the area of construction and the construction actions necessary for both Build Alternatives are similar, the required utility relocations and associated coordination is expected to be the same and they are discussed together in this section.

The Build Alternatives for the project will require protection in place, removal, replacement, and/or relocation of existing utilities. Based on preliminary engineering efforts, it is anticipated that some utilities within the project limits can and will be protected in place, and some utilities will require relocation. Early and continuing coordination will occur with the respective service providers, the City of Palm Desert, and the County of Riverside. Final determinations of impacts on utilities and related relocation requirements will be completed during the Final Design phase of the proposed project. An updated utilities search would be conducted during Final Design to further confirm all potential utility conflicts. Utility companies typically do not approve relocation until the Final Design phase of the project. The affected utilities would be relocated in accordance with federal and state

law and regulations and also consistent with applicable county requirements. If the ultimate utility relocations would create additional environmental impacts beyond those identified in the analysis for preliminary engineering efforts, then additional environmental analysis would be required. The results of any additional environmental analysis required in conjunction with utility relocation, will be used to determine if any additional avoidance, minimization, and/or mitigation measures are required and they will be implemented.

No-Build Alternative

The No-Build Alternative would result in no relocations or any other utility related construction. No impacts would occur to utilities.

Emergency Services

Build Alternatives 2 and 3

Permanent Impacts

The proposed I-10/Portola Avenue New Interchange project does not include the construction of new land uses that would increase the need for police protection or emergency services. Emergency services will not be impacted by the proposed project.

Temporary Impacts

Emergency services may be temporarily affected due to lane closures and/or detours during construction; however these impacts will be minimized through advanced coordination with emergency service providers before and during construction and through the use of a TMP (see Temporary Impacts discussion within Section 2.1.5/page 115).

No-Build Alternative

The No-Build Alternative would not result in any construction. No impacts would occur to emergency services.

Union Pacific Railroad

Build Alternatives 2 and 3

Permanent Impacts

Permanent easements would be required for the proposed eastbound exit and entrance ramps, which will be located approximately 35 feet from the existing railroad tracks using retaining walls to ramp up to the bridge structure. Preliminary discussions with UPRR in early 2017 resulted in the bridge profile being raised as well as a bent being removed from within UPRR's right of way. It is anticipated that the following agreements will be required from UPRR for the project post construction: 1) Permanent easement for the proposed bridge and roadway, 2) a Maintenance Agreement for on-going bridge maintenance, and 3) right of entry for field visits prior to, during, and after construction.

All permanent easements will need to be identified and documented in plats and legals prior to beginning the Construction and Maintenance Agreement with UPRR. A right of way appraisal of the impacted areas is required to negotiate permanent entitlement rights for the project.

Temporary Impacts

The proposed Portola Avenue Interchange structure would span the UPRR tracks and the project has been designed to meet all permanent and temporary clearance (vertical and horizontal) requirements. Temporary construction easements and an aerial easement will also be required for construction of the proposed structures.

It is anticipated that the following agreements will be required from UPRR in conjunction with construction of the project; temporary construction license for construction, temporary rail crossing agreements for access during construction, a Construction and Maintenance Agreement for project construction and right of entry for field visits, soil borings, surveying, and other design activities.

Structure alternatives and impacts were discussed with UPRR during a concept review meeting, held on August 28, 2017, which reviewed the current design to ensure that the project meets UPRR needs and requirements. Subsequent to their conceptual approval, design submittals will be made to UPRR during the final design process per the "BNSF Railway – Union Pacific Railroad Guidelines for Railroad Grade Separation Projects." Since a new rail crossing is proposed, a formal application for the new rail crossing will be submitted to the California Public Utilities Commission (CPUC) for approval. A formal concurrence letter from UPRR is required in the formal application. All project requirements related to the Union Pacific Railroad will be completed prior to the conclusion of Final Design.

All temporary easements, including construction staging areas, will need to be identified and documented in plats and legals prior to beginning the Construction and Maintenance Agreement with UPRR. A right of way appraisal of the impacted areas is required to negotiate permanent entitlement rights and construction access rights for the project.

A construction and access agreement from UPRR will be required on both sides of the railroad tracks for construction of the interchange facility. The construction contractor will be required to coordinate with the UPRR to implement a specific construction action plan and schedule that will accommodate the movement of trains through the project area in accordance with UPPR requirements.

No-Build Alternative

The No-Build Alternative would not result in any construction. No impacts would occur to the Union Pacific Railroad.

Avoidance, Minimization and/or Mitigation Measures

Implementation of measure TRA-1d, detailed in Section 2.1.5/page 113, will minimize any potential impacts to emergency service providers during construction.

2.1.5 Traffic and Transportation/Pedestrian and Bicycle Facilities

Regulatory Setting

Caltrans, as assigned by 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 Part 27) implementing Section 504 of the Rehabilitation Act (29 United States Code [USC] 794). 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, including Transportation Enhancement Activities.

Affected Environment

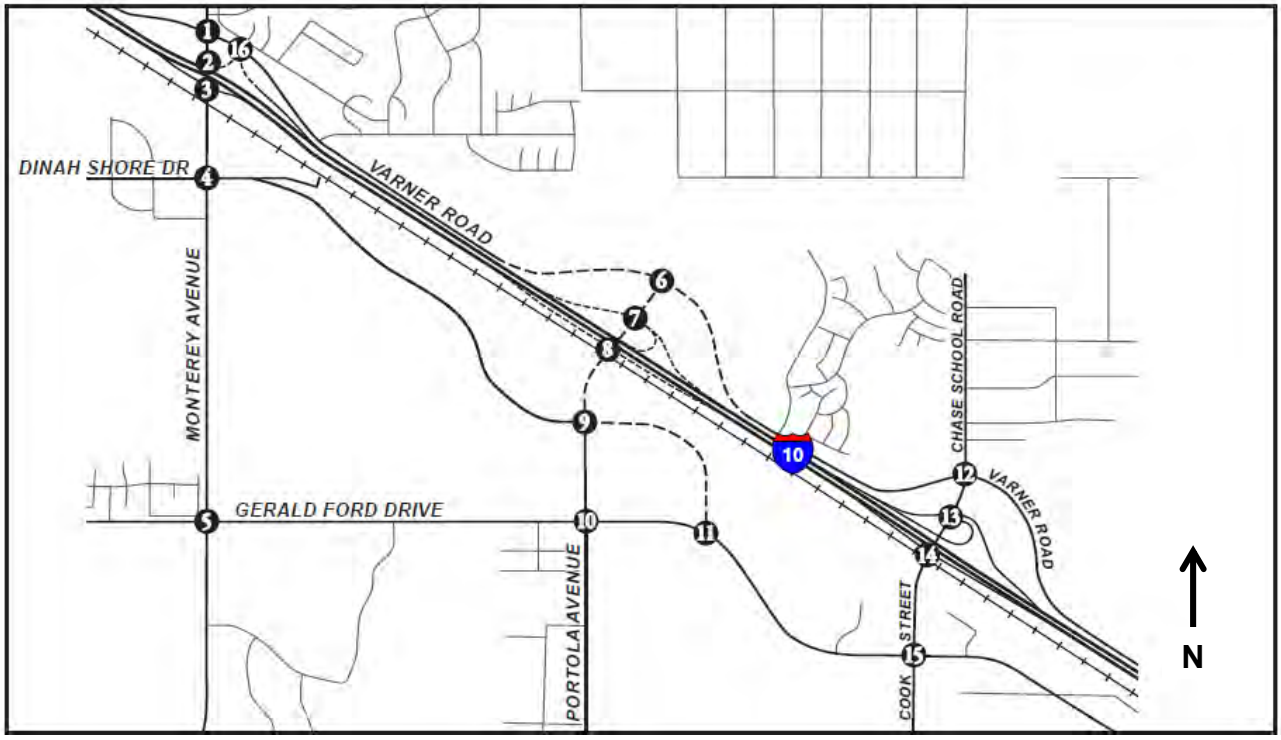
The following information is based on the December 2009 Traffic Operations Analysis and the February 2015 Traffic Volume Validation Report. The 2009 version of the Traffic Operations Analysis evaluated the proposed project based upon an opening year of 2015 and a design horizon year of 2040. In conjunction with the proposed project's opening year and design horizon year changing, the Traffic Operation Analysis was revalidated in 2015, based upon the proposed project having an opening year of 2020 and design horizon year of 2040. This report updated the traffic analysis and confirmed that the traffic model was still accurate for a construction year of 2020 and a 20 year design horizon of 2040. This is because the traffic growth assumptions used in the original report were overstated, with one reason being the economic slow-down that occurred after the Year 2008. All traffic analysis discussion in this environmental document, including this section is based upon the June 2015 *Traffic Operations Analysis.*

The traffic analysis study area includes the freeway mainline, ramp junctions, and collector-distributor roadways on I-10 between the Cook Street and Monterey Avenue Interchanges. In addition to the freeway segments, the study area also includes the intersections in the vicinity of the proposed I-10/Portola Avenue New Interchange. These intersections, analyzed as part of this study, include the following:

1) Monterey Avenue/Varner Road
2) Monterey Avenue/I-10 Westbound Ramps
3) Monterey Avenue/I-10 Eastbound Ramps
4) Monterey Avenue/Dinah Shore Drive
5) Monterey Avenue/Gerald Ford Drive
6) Portola Avenue/Varner Road (future intersection)
7) Portola Avenue/I-10 Westbound Ramps (future intersection)
8) Portola Avenue/I-10 Eastbound Ramps (future intersection)
9) Portola Avenue/Dinah Shore Drive (future intersection)
10) Portola Avenue/Gerald Ford Drive
11) Dinah Shore Drive/Gerald Ford Drive
12) Cook Street/Varner Road
13) Cook Street/I-10 Westbound Ramps
14) Cook Street/I-10 Eastbound Ramps
15) Cook Street/Gerald Ford Drive
16) I-10 Westbound Ramps/Varner Road (future intersection)

Figure 2.10 illustrates the locations of the study intersections. All existing study area intersections are currently signalized.

Figure 2.10: Locations of Study Intersections



Note: Intersection 7 has a different configuration between Build Alternatives 2 and 3. The westbound onramp is only included in Alternative 2 but is shown as a hybrid on this figure for location reference.

Existing Highway Facilities

Table 2.13 shows that the existing adjacent interchanges and intersections have insufficient capacity to accommodate the forecast traffic demand. All of the Monterey Avenue and one of the five Cook Street Intersections operate at an unacceptable LOS F, according to Caltrans Standards in the 2009 Traffic Operations Analysis and 2015 Traffic Volume Validation Report.

I-10 is an east-west freeway that provides regional access for the Cities of Palm Desert, Indio, La Quinta, Indian Wells, Rancho Mirage, and adjacent unincorporated portions of Riverside County. In the project area I-10 is a six-lane freeway and connects the Palm Desert region with the Los Angeles region to the west and with Arizona to the east. State Highway 111 junctures with the I-10 just west of Palm Springs and provides access to Brawley in Imperial Valley.

The City of Palm Desert road network has been built along a north-south grid, with major arterials passing through adjacent jurisdictions. Direct access to I-10 is provided via the interchanges at Monterey Avenue, Cook Street, and Washington Street. Local major roadways within the vicinity of the proposed I-10/Portola Avenue New Interchange include the following:

Existing Local Facilities

Cook Street. It is an existing north-south divided roadway that is six lanes north of Frank Sinatra Drive and generally four lanes to the south. Cook Street extends from I-10 on the north to Highway 111 to the south. This road is designated as an “Arterial” in the City of Palm Desert’s General

Plan. Cook Street provides access to the Cook Street Business Park District and would be the primary access to the new Palm Desert Campus of California State University, San Bernardino and University of California, Riverside. Cook Street is outside the project area but changes in traffic patterns with the proposed project would affect Cook Street and the Cook Street interchange at I-10.

Monterey Avenue. It is an existing north-south roadway that is six lanes north of Dinah Shore Drive and generally four lanes to the south. This road is designated as an "Arterial" in the City of Palm Desert's General Plan. Monterey Avenue serves as the primary gateway to the City of Palm Desert from I-10, while also serving the community of Thousand Palms north of I-10. Monterey Avenue is outside the project area but changes in traffic patterns with the proposed project would affect Monterey Avenue and the Monterey Avenue interchange at I-10.

Portola Avenue. It is an existing north-south roadway extending from Highway 74 to the south to Gerald Ford Drive to the north. The road is generally four lanes south of College Drive, and between five-six lanes north of College Drive to Dinah Shore Drive. This road is designated as an "Arterial" in the City of Palm Desert's General Plan. Portola Avenue serves as a major north-south roadway within the City of Palm Desert, and with the proposed new interchange at I-10, it would provide additional access to the City from I-10.

Dinah Shore Drive. It is an existing east-west four-lane roadway extending from Monterey Avenue to the east and continues west to become Mesquite Road. This road is designated as an "Arterial" in the City of Palm Desert's General Plan. East of Portola Avenue, Dinah Shore Drive would continue southeast as a Secondary Street once it is constructed and would be parallel with the UPRR and I-10 corridor. Dinah Shore Drive intersects Portola Avenue at the extreme southern part of the project area.

Varner Road. It is an existing two-lane commercial/industrial collector located immediately north and parallel to I-10. Varner Road is in Riverside County jurisdiction and is a Secondary Street in the Riverside County General Plan. This road is ultimately planned to be a divided four-lane, east-west roadway. While it is within Riverside County jurisdiction, it is designated as a "Thoroughfare" on the City of Palm Desert's General Plan planning area. It extends from just west of Palm Desert Drive, south of Desert Hot Springs, to the Indio city limits. Additionally, Varner Road provides freeway linkage and frontage for residential, commercial, and industrial development, extending from Rio del Sol (Bob Hope Drive, extended) southeast to Indio. Varner Road also facilitates important interconnections with I-10, including the interchanges at Bob Hope Drive, Monterey Avenue, Cook Street, Washington Street, and future Portola Avenue. Varner Road is included in the northern part of the study area and would need to be realigned to provide room for the proposed I-10/Portola Avenue Interchange.

Gerald Ford Drive. It is an existing five-lane facility west of Portola Avenue and 6 lane facility east of Portola Avenue. As described in the City of Palm Desert's General Plan, Gerald Ford Drive is an east-west Arterial west of Cook Street and a thoroughfare east of Cook Street. Gerald Ford Drive terminates at Date Palm Drive in Cathedral City, and on the east it continues east of Cook Street and turns south to terminate at Frank Sinatra Drive.

Existing Pedestrian and Bicycle Facilities

No formal pedestrian facilities have been constructed in the project area. There is a sidewalk constructed on the south side of Dinah Shore Drive from Rembrandt Parkway to Portola Avenue

associated with recent residential development there. Curb ramps have also been installed at the intersection of Dinah Shore Drive and Portola Avenue but are not connected to any other sidewalks. This intersection is adjacent to the project area and the proposed project would tie in to these existing, adjacent pedestrian facilities. There are no pedestrian facilities on Varner Road in the project area.

No formal bicycle facilities have been constructed in the project area. There is a Class II bicycle lane constructed on both sides of Dinah Shore Drive just west of Portola Avenue associated with recent residential development there. The easterly extension of Dinah Shore Drive to the intersection of Gerald Ford Drive and Pacific Avenue also includes Class II bicycle lanes, which continue south on Pacific Avenue and east on Gerald Ford Drive. Portola Avenue, south of the project area, from Magnesia Falls Drive to Dinah Shore Drive, has a Class II bicycle lane constructed on both sides of the road. Class II bicycle facility provides a striped dedicated bicycle lane on a street or highway adjacent to vehicle travel lanes. The Portola Avenue and Dinah Shore Drive intersection is adjacent to the project area and the proposed project would tie in to this existing, adjacent bicycle facility. There are no designated bicycle facilities on Varner Road in the project area.

Environmental Consequences

Build Alternatives 2 and 3

Permanent Impacts

Both Build Alternatives propose to construct a new freeway interchange at I-10 and Portola Avenue. Both Alternative 2 and Alternative 3 propose to continue Portola Avenue as a six-lane arterial from Dinah Shore Drive to the realigned Varner Road, including a new bridge structure over I-10 and the UPRR and a tight diamond type ramp system for the eastbound on- and off-ramps (Type L-1). Auxiliary lanes would be constructed between the proposed Portola Avenue interchange and the adjacent interchanges of Monterey Avenue and Cook Street. The UPRR facility is located on the City of Palm Desert side of I-10. A permanent easement would be required from the UPRR to accommodate the eastbound entrance and exit ramps. Retaining walls and structures along the eastbound entrance and exit ramps would be required to minimize impacts to the UPRR right of way.

The project area north of the I-10 is located in a portion of unincorporated Riverside County. Both Build Alternatives propose the realignment and widening of Varner Road to four lanes around the proposed new interchange. The realignment of Varner Road is necessary to meet FHWA's requirement that the distance between nearest local street intersection and interstate highway off- and on-ramp intersection should be 525 feet.

Both Build Alternatives propose construction of new auxiliary lanes on I-10 between the following locations.

- Eastbound Monterey Avenue on-ramp to the eastbound Portola Avenue off-ramp
- Eastbound Portola Avenue on-ramp to the eastbound Cook Street off-ramp
- Westbound Cook Street off-ramp to the westbound Portola Avenue off-ramp
- Westbound Portola Avenue Loop on-ramp to the westbound Monterey Avenue off-ramp

Alternative 2 would construct a modified Type L-9 partial cloverleaf on the north side of I-10 and a type L-1 compact diamond interchange on the south side of I-10. In comparison to Alternative

3, this alternative eliminates a conflicting left-turn movement (southbound Portola Avenue to westbound I-10), and eliminates pedestrian conflict at the same intersection.

Alternative 3 consists of a Type L-7 interchange on the north side of I-10 and a type L-1 compact diamond interchange on the south side of I-10. Alternative 3 would utilize a loop on-ramp for both northbound and southbound Portola Avenue traffic to access I-10 traveling westbound. This alternative would result in a design that requires traffic going southbound on Portola to make a left turn to access the westbound I-10 loop on-ramp.

Freeway Operations

In the 2020 and 2040 analysis, the delay and LOS for Alternative 2 and Alternative 3 are similar. Alternative 3 does not include a dedicated westbound on-ramp in the northwest quadrant of the interchange. Vehicles traveling from the north, southbound on Portola would have to make a left turn onto the westbound loop ramp. All other interchange ramps and turn movements are the same between the two alternatives.

Travel Time Comparison and Peak Period Performance

Inclusion of the Portola Avenue New Interchange improves the mainline LOS. In 2020, 21 of 23 freeway segments operate at the same or better LOS with Build Alternatives 2 or 3. In 2040 16 of 23 freeway segments operate at the same or better LOS with Build Alternatives 2 or 3 compared with the No-Build Alternative. Some segments do operate at a lower LOS with Build Alternatives 2 or 3 due to the redistribution of traffic from the adjacent interchanges. Westbound I-10 traffic with a trip destination near or along Portola Avenue would not exit at Cook Street with Alternatives 2 or 3. Instead, drivers would remain on the freeway to exit at Portola Avenue, nearer to their destination. Likewise, eastbound I-10 traffic would remain on the freeway beyond Monterey Avenue to exit at Portola Avenue, nearer to their intended destination. These segments account for less than 20% of the mainline affected by the project, while the remaining segments would remain the same or improved with either Alternative 2 or 3.

In 2040, for all segments in common between Alternative 2 and Alternative 3, the LOS would be identical. As shown in Table 2.12, for Alternatives 2 and 3, six freeway segments during the AM peak hour and six freeway segments during the PM peak hour in 2040 would operate at an unsatisfactory LOS. However, in comparison with the No-Build Alternative freeway segment analysis, the proposed project, regardless of the alternative, improves the operation of the freeway segments between Monterey Avenue and Cook Street.

As shown in Table 2.12: Freeway Mainline Peak Hour Volumes and Level of Service Comparison, Alternatives 2 and 3 would provide improved operations and lower delay in seconds per vehicle at the majority of freeway segments. In 2040, the No-Build Alternative would have lower delay for 14 segments during the a.m. and p.m. peak hours, whereas the Alternatives 2 and 3 would have lower delay for 20 segments during a.m. and p.m. peak hours.

Table 2.12: Freeway Mainline Peak Hour Volumes and Level of Service Comparison

	Freeway Segment	Peak Hour	2015	2020			2040		
			Baseline Conditions	No Build	Alt 2	Alt 3	No Build	Alt 2	Alt 3
			LOS/Volume*	LOS/Volume*			LOS/Volume*		
Westbound	East of Cook Street Off-Ramp	AM	D/5,495	D/5,830	D/5,830	D/5,830	**F/9,732**	**F/9,732**	**F/9,732**
		PM	D/5,879	**F/6,564**	**F/6,564**	**F/6,564**	E/8,344	E/8,344	E/8,344
	Cook Street Off-Ramp to Cook Street Loop On Ramp (Lane Addition)	AM	C/4,956	D/4,975	D/5,468	D/5,468	**F/8,688**	**F/9,538**	**F/9,538**
		PM	D/5,471	D/5,684	E/6,172	E/6,172	D/7,168	E/7,911	E/7,911
	Cook Street Loop On-Ramp (Lane Addition) to Cook Street Slip On-Ramp	AM	C/5,850	C/5,224	C/5,802	C/5,802	D/9,043	E/9,893	E/9,893
		PM	C/6,027	C/6,199	D/6,687	D/6,687	C/7,697	D/8,440	D/8,440
	Cook Street Slip On-Ramp to Lane Drop	AM	C/4,874	C/5,558	N/A	N/A	D/9,485	N/A	N/A
		PM	C/6,057	C/6,239	N/A	N/A	C/7,750	N/A	N/A
	Lane Drop to Monterey Avenue Off-Ramp	AM	D/5,874	D/5,558	N/A	N/A	**F/9,485**	N/A	N/A
		PM	E/6,057	E/6,239	N/A	N/A	D/7,750	N/A	N/A
	Cook Street Slip On-Ramp to Portola Avenue Off-Ramp	AM	N/A	N/A	C/6,052	C/6,052	N/A	E/10,335	E/10,335
		PM	N/A	N/A	C/6,727	C/6,727	N/A	D/8,493	D/8,493
	Portola Avenue Off-Ramp to Portola Avenue Loop On-Ramp (Lane Addition)	AM	N/A	N/A	D/5,360	D/5,360	N/A	**F/9,085**	**F/9,085**
		PM	N/A	N/A	E/6,039	E/6,039	N/A	D/7,251	D/7,251
	Portola Avenue On-Ramp to Monterey Avenue Off-Ramp	AM	N/A	N/A	C/5,526	N/A	N/A	D/9,389	N/A
		PM	N/A	N/A	C/6,261	N/A	N/A	C/7,652	N/A
	Portola Avenue Loop On-Ramp Lane Addition) to Monterey Avenue Off-Ramp	AM	N/A	N/A	C/5,576	C/5,576	N/A	D/9,478	D/9,478
		PM	N/A	N/A	C/6,339	C/6,339	N/A	C/7,791	C/7,791
	Monterey Avenue Off-Ramp to Monterey Avenue On-Ramp	AM	C/4,117	C/4,749	D/4,967	D/4,967	E/8,529	**F/8,913**	**F/8,913**
		PM	D/5,469	D/5,347	D/5,645	D/5,645	D/6,516	D/7,057	D/7,057
	Monterey Avenue On-ramp to Monterey Avenue Slip On-Ramp	AM	N/A	C/5,549	C/5,549	C/5,549	**F/9,749**	**F/9,749**	**F/9,749**
		PM	N/A	D/6,474	D/6,474	D/6,474	E/8,052	E/8,055	E/8,055
	West of Monterey Avenue Slip On-Ramp	AM	N/A	N/A	C/5,596	C/5,596	N/A	**F/9,801**	**F/9,801**
		PM	N/A	N/A	D/6,539	D/6,539	N/A	E/8,109	E/8,109
	West of Monterey Avenue On-Ramp	AM	C/4,507	C/5,596	N/A	N/A	F/9,801	N/A	N/A
		PM	C/6,320	D/6,539	N/A	N/A	E/8,109	N/A	N/A
Eastbound	West of Monterey Avenue Off-Ramp	AM	C/6,101	C/6,663	D/6,663	D/6,663	D/7,204	D/7,204	D/7,204
		PM	B/4,289	C/5,720	C/5,720	C/5,720	**F/8,896**	**F/8,896**	**F/8,896**
	Monterey Avenue Off-Ramp to Lane Drop	AM	C/4,875	C/5,963	C/6,106	C/6,106	D/6,493	D/6,760	D/6,760
		PM	B/3,487	C/4,842	C/5,051	C/5,051	D/7,728	E/8,090	E/8,090
	Lane Drop to Monterey Avenue On-Ramp	AM	D/4,875	E/4,963	E/6,106	E/6,106	N/A	D/6,760	D/6,760
		PM	C/3,487	D/4,842	D/5,051	D/5,051	N/A	E/8,090	E/8,090
	Monterey Avenue On-Ramp (Lane Addition) to Portola Avenue Off-Ramp	AM	D/5,739	**F/7,173**	D/7,008	D/7,008	E/8,078	C/7,943	C/7,943
		PM	D/4,863	E/6,244	C/6,142	C/6,142	F/9,699	D/9,560	D/9,560
	Portola Avenue Off-Ramp to Portola Avenue On-Ramp	AM	N/A	N/A	**F/6,797**	**F/6,797**	N/A	D/7,561	D/7,561
		PM	N/A	N/A	D/5,842	D/5,842	N/A	**F/9,019**	**F/9,019**
	Portola Avenue On-Ramp to Cook Street Off-Ramp	AM	N/A	N/A	D/7,158	D/7,158	N/A	D/8,211	D/8,211
		PM	N/A	N/A	C/6,199	C/6,199	N/A	D/9,665	D/9,665
	Cook Street Off-Ramp to Cook Street On Ramp	AM	D/5,104	E/6,410	E/6,463	E/6,463	D/7,272	D/7,490	D/7,490
		PM	C/4,406	D/5,438	D/5,484	D/5,484	E/8,643	F/8,788	F/8,788
	East of Cook Street On-Ramp	AM	D/5,478	**F/6,828**	**F/6,828**	**F/6,828**	E/7,887	E/7,887	E/7,887
		PM	D/4,966	E/5,963	E/5,963	E/5,963	**F/9,281**	**F/9,281**	**F/9,281**

Source: Traffic Operations Analysis, 2009, Traffic Volume Validation Report, 2015

*Volumes are shown as "Peak Hour Passenger Car Equivalent."

Notes: 1) Source is the 2009 Traffic Operations Analysis, revalidated 2015. Table shows 2020 construction and 2040 design year, revalidated from the original 2015 and 2035 analysis respectively.

2) Reference Tables 1.2 (sheet1 of 2) and 1.2 (sheet 2 of 2) for LOS definitions by letter designation.

Table 2.13: Intersection Operations Comparison

Intersection	Peak Hour	2015	2020			2040		
		Baseline Conditions	No Build	Alt 2	Alt 3	No Build	Alt 2	Alt 3
		LOS-Delay	LOS-Delay	LOS-Delay	LOS-Delay	LOS-Delay	LOS-Delay	LOS-Delay
Monterey Avenue/Varner Road	AM PM	B/16.9 B/17.3	D/45.4 D/41.5	C/33.2 D/46.3	C/33.2 D/46.3	**F/121.6** **F/231.5**	D/43.8 **F/96.8**	D/43.8 **F/96.8**
Monterey Avenue/ I-10 WB Ramps	AM PM	C/25.2 C/29.1	***Intersection Removed***					
Monterey Avenue/ I-10 EB Ramps	AM PM	C/30.3 B/19.6	C/21.7 C/26.5	B/14.8 B/13.7	B/14.8 B/13.7	D/43.6 **F/124.6**	B/12.8 C/23.6	B/12.8 C/23.6
Monterey Avenue/ Dinah Shore Drive	AM PM	C/23.0 E/77.3	D/39.6 E/77.4	C/32.5 E/51.2	C/32.5 E/51.2	**F/135.5** **F/217.9**	**F/83.7** **F/150.2**	**F/83.7** **F/150.2**
Monterey Avenue/ Gerald Ford Drive	AM PM	C/26.2 C/26.8	D/53.2 **F/88.8**	D/40.6 E/51.5	D/40.6 E/51.5	**F/161.3** **F/267.5**	**F/80.4** **F/124.5**	**F/80.4** **F/124.5**
Portola Avenue/Varner Road	AM PM	N/A	N/A	B/15.5 B/18.4	B/15.5 B/18.4	N/A	B/19.9 C/25.0	B/19.9 C/25.0
Portola Avenue/I-10 WB Ramps	AM PM	N/A	N/A	B/11.0 A/9.7	B/16.5 B/12.5	N/A	B/10.7 A/9.8	B/18.3 B/19.4
Portola Avenue/I-10 EB Ramps	AM PM	N/A	N/A	A/7.6 A/9.2	B/11.1 A/9.8	N/A	B/14.4 B/19.3	B/16.5 C/20.0
Portola Avenue/ Dinah Shore Drive	AM PM	N/A	B/15.8 B/17.4	C/29.6 D/37.9	C/27.4 D/40.1	B/16.6 B/17.7	D/39.6 D/39.7	D/35.2 D/40.6
Portola Avenue/ Gerald Ford Drive	AM PM	C/32.8 C/30.8	C/27.4 C/25.5	C/26.4 C/25.9	C/26.4 C/25.9	C/28.5 D/46.3	D/45.7 D/43.0	D/45.7 D/43.0
Dinah Shore Drive/ Gerald Ford Drive	AM PM	N/A	C/26.9 C/24.6	C/20.6 C/20.7	C/20.6 C/20.7	C/24.9 C/20.9	C/20.6 B/19.4	C/20.6 B/19.4
Cook Street/ Varner Road	AM PM	B/12.8 B/14.3	E/70.2 **F/92.1**	D/47.1 E/72.6	D/47.1 E/72.6	**F/235.8** **F/316.3**	**F/167.9** **F/251.2**	**F/167.9** **F/251.2**
Cook Street/ I-10 WB Ramps	AM PM	D/47.8 B/15.4	B/15.4 B/16.9	B/14.5 B/14.0	B14.5 B/14.0	B/14.8 B/14.2	A/6.4 B/11.8	A/6.4 B/11.9
Cook Street/ I-10 EB Ramps	AM PM	B/17.9 B/10.8	C/21.1 B/19.6	B/19.6 B/19.4	B/19.6 B/19.4	C/23.0 C/31.1	B/19.9 C/25.9	B/19.9 C/25.9
Cook Street/ Gerald Ford Drive	AM PM	C/27.9 B/19.7	C/26.6 C/33.6	C/26.7 C/31.7	C/26.7 C/31.7	C/33.2 D/54.9	C/31.0 D/40.0	C/31.0 D/40.0
I-10 WB Ramps/ Varner Road at Monterey Avenue	AM PM	N/A	B/16.8 C/30.4	B/17.1 C/20.3	B/17.1 C/20.3	D/42.0 C/23.2	B/18.4 C/26.2	B/18.4 C/26.2

Source: Traffic Operations Analysis, 2009, Traffic Volume Validation Report, 2015

Notes: 1) Source is the 2009 Traffic Operations Analysis, revalidated 2015. Table shows 2015 construction and 2035 design year but these have been revalidated to 2020 construction and 2040 design year.
2) Each field is a composite for Level of Service (marked as a letter) and delay in seconds (marked as a number). Reference Figures 1.3 and 1.4 for Level of Service definitions by letter designation.
3) Delay is provided in average seconds per vehicle at each intersection.

Arterial Impacts and Intersection Impacts

As shown in Table 2.13: Intersection Operations Comparison if no improvements are made (No-Build Alternative), five of the study intersections are projected to operate at LOS F by 2040. Both of the proposed Build Alternatives show substantial improvement in both delay and LOS over the 2040 No-Build Alternative. In 2040, some intersections at the Cook Street and Monterey Avenue interchanges would still operate at LOS F with the two Build Alternatives, but construction of the proposed project would substantially reduce delay at each of those intersections (20-60%

reduction). For Alternative 2 and Alternative 3, all the intersections on Portola Avenue including those at the new interchange at I-10 are projected to operate at a satisfactory LOS by 2040.

By 2020, the No-Build Alternative would result in LOS F during the PM peak hour at the Monterey Avenue and Gerald Ford Drive intersection as well as the Cook Street and Varner Road intersection. LOS would be improved to E or better at every intersection studied in the project area for Build Alternatives 2 and 3. Using one of these intersections as an example, typical motorists would experience a delay of 92.1 seconds (LOS F) at the Cook Street/Varner Road intersection with the No-Build Alternative. In comparison, Alternatives 2 or 3 would decrease the delay to 72.6 seconds (LOS E). At the Monterey Avenue/Gerald Ford Drive intersection, the No-Build would result in a delay of 88.8 seconds (LOS F) during the afternoon commute hour. In comparison, Alternatives 2 or 3 would decrease the delay to 51.5 seconds (LOS E).

In 2040, Alternatives 2 or 3 would result in an improved overall LOS compared to the No-Build Alternative. Ten out of twelve existing intersections would result in considerable operational improvements (measured in seconds of delay) with Alternatives 2 or 3. For instance, typical motorists would experience a delay of 121.6 seconds (LOS F) at the Monterey Avenue/Varner Road intersection with the No-Build Alternative, whereas, Alternative 2 or 3 would result in a decreased delay of 43.8 seconds (LOS D). At the Cook Street/Varner Road intersection, the delay in seconds would be 235.8 seconds (LOS F) in the AM peak hour and 316.3 seconds (LOS F) in the PM peak hour with the No-Build Alternative. In comparison, Alternatives 2 or 3 would result in 167.9 seconds (LOS F) in the AM peak hour and 251.2 seconds (LOS F) in the PM peak hour. Although the Build Alternatives do not improve the LOS at Cook Street/Varner Road intersection, they do notably reduce the length of delay with respect to the average delay per vehicle traveling through this intersection. Overall, while some intersections are projected to still operate at LOS F, based on the delay as measured in seconds, as stated above, 10 out of the 12 studied intersections will still be notably improved with respect to operational performance.

By providing additional access to the I-10 freeway via Portola Avenue, Build Alternatives 2 and 3 would improve operational performance and reduce travel times for traffic within the study area. These improvements would also alleviate the growing congestion on the adjacent Cook Street and Monterey Avenue Interchanges because local traffic would not be limited to Cook Street and Monterey Avenue to get to I-10.

Pedestrian and Bicycle Facilities

Build Alternatives 2 and 3 would include the construction of pedestrian facilities. Standard 8-foot wide sidewalks would be constructed on the west side of Portola Avenue from Dinah Shore Drive to Varner Road. Cross walks and curb ramps would be installed at each intersection connecting the sidewalk. Lighting standards, electrical cabinets, fire hydrants, signs, and other fixed objects will be located beyond the back of the sidewalk, where possible, to provide an unobstructed area for pedestrians. Build Alternatives 2 and 3 would be designed in accordance with the Americans with Disabilities Act (ADA) requirements for pedestrian accessibility and mobility.

Both Build Alternatives include 8-foot wide shoulders on both sides of Portola Avenue from Dinah Shore Drive to Varner Road for bicycle use. In addition, 6-foot wide bicycle refuge areas are provided next to dedicated right turn lanes in the project area. These proposed shoulders would provide bicycle accessibility over the freeway and would connect in with the existing

Class II bicycle facility located on Dinah Shore Drive and Portola Avenue, south of the project area.

Temporary Impacts

Build Alternatives 2 and 3

Construction is expected to result in minimal disruption to the public and railroad. In order to allow over height trucks to detour via the Portola Avenue ramps, the ramps will be constructed prior any falsework over the I-10 freeway. This will allow construction of the interchange without the need for numerous detours and traffic delays.

Although many of the major closures are expected to occur at night, vehicles traveling through the construction zone will likely experience longer than normal delays. The Public Awareness Campaign (PAC) will keep the surrounding community abreast of the project's progress and construction activities that could affect their travel plans.

The project area south of I-10 is located in the City of Palm Desert and is planned to have no impact on existing local roads during construction with the exception of the time associated with matching the extension of Portola Avenue to the intersection with the new I-10 on and off ramps from the existing Portola Avenue Intersection with Dinah Shore Drive.

The project area north of I-10 is located in a portion of unincorporated Riverside County. The new alignment of Varner Road will be constructed, and once completed traffic will be shifted to the new roadway. In spite of this construction staging measures to minimize construction impacts, some traffic delays are expected during project construction, particularly on Varner Road.

Regarding the portion of the project involving I-10 directly, freeway operations may be affected during construction of the ramps and the overpass. Freeway lane closures may be necessary for short periods of time to accommodate bridge construction or other key phases of construction. Limiting construction to off-peak hours could minimize traffic impacts during construction. The construction contractor will be required to coordinate with Caltrans and obtain traffic management plan approvals for any planned lane closures during construction.

Project crosswalks at intersections and intersection signal operations would provide safe passage of pedestrians. In order to ensure that the needs of pedestrians, individuals with disabilities, and bicyclists are met during construction, a five-foot minimum temporary access through construction zones will be maintained at existing roadways throughout construction. Access provided this way would generally be protected using K-Type rail barriers or some other method of separating pedestrians from the construction zone.

To alleviate potential temporary impacts, prior to the start of construction, a TMP will be prepared for the proposed I-10/Portola Avenue New Interchange project. These will be implemented as part of the construction requirements for this project, including at minimum the following:

Traffic Control: The Project will require traffic control elements such as lane/shoulder closures and temporary signing/striping on city streets, I-10 ramps, and I-10 mainline. Two general purpose travel lanes in each direction will be maintained during construction.

Construction Zone Enhanced Enforcement Program (COZEEP): Two CHP officers will enforce lane closures by providing a visual deterrent to errant/speeding vehicles resulting in a safer work zone for both construction workers and the motoring public.

Public Awareness Campaign (PAC): To reduce these delays and confusion to the motoring public during construction activities the project will implement a PAC. Mailers/flyers, local newspaper advertising, local radio information, and public meetings will be utilized, as appropriate, for disseminating information.

Emergency Services: Prior to and throughout construction, emergency service providers will be informed of the construction schedule and when lane closures and/or detours would occur which could affect emergency service routes as applicable.

Signing: Post information signing on I-10 and local arterials prior to and during construction to inform motorists of delays, ramp closures, and alternate travel routes.

Pedestrian Access: Provide a pedestrian detour plan to accommodate sidewalk closures, as applicable.

No-Build Alternative

The No-Build Alternative would result in diminishing LOS at surrounding interchanges and intersections as indicated in Tables 2.12 and 2.13. Without improvement to the area, the Cook Street and Monterey Avenue interchanges would experience more congestion and delays resulting in gridlock at some intersections by 2040. The Monterey Avenue Interchange would be impacted more by these delays since it is the primary commuter access point for the Cities of Palm Desert and Rancho Mirage.

The No-Build Alternative does not involve construction and would not result in any temporary construction related traffic impacts.

Avoidance, Minimization and/or Mitigation Measures

No measures are required.

2.1.6 Visual/Aesthetics

Regulatory Setting

The National Environmental Policy Act of 1969 as amended (NEPA) 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 United States Code [USC] 4331[b][2]). To further emphasize this point, 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 taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

The California Environmental Quality Act (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]).

Affected Environment

A Visual Impact Assessment (VIA) was prepared in February 2012, and a VIA Update Memo was prepared in June 2017, to evaluate the potential impacts the proposed project could have to visual resources within the project area. The VIA was prepared to define the project setting and view shed, identify key views for visual assessment, analyze existing visual resources and viewer response, depict the visual appearance of project alternatives, assess the visual impacts of project alternatives, and proposed methods to reduce adverse visual impacts. The VIA Update Memo was prepared to evaluate minor design changes that have occurred since 2012. This memo found that these design changes would have no noticeable change in the 2012 VIA findings and conclusions.

The elevation of the project site is relatively flat, ranging from 160 to 200 feet above mean sea level. The project area's elevation is slightly below the surrounding topography and includes distant views of the surrounding mountains.

The project contains three primary vegetation communities: Sonoran creosote bush scrub, tamarisk windrows, and ruderal vegetation. The vegetation within the project area is disturbed as a result of historic agricultural practices, surrounding new developments, and transportation infrastructure (freeway, roads and railroad). The majority of the vegetation within the southern portion of the project area is classified as Sonoran creosote bush scrub. This vegetative community is disturbed, with elements of ruderal vegetation. The northernmost portion of the project area includes tamarisk windrows. The area has been highly disturbed by new construction, off-road vehicles, and illegal dumping.

I-10 is not a designated scenic highway within the project boundaries, nor is the proposed I-10/Portola Avenue New Interchange located within designated scenic vistas (Riverside County, 2015). The visual character within the project limits is shaped primarily by the existing transportation system, which includes I-10, the Monterey Avenue and Cook Street Interchanges and the UPRR tracks. The project is located in a developing urban area.

Viewer groups for a transportation project are identified as people with views of the road and from the road. Visual changes to an existing setting could result in a positive or a negative perception of the project, depending on the viewer groups. Viewer groups can be identified through their location, activity, and sensitivity to visual changes. For the proposed I-10/Portola Avenue New Interchange project, the viewer groups are identified as motorists and residents. Motorists are considered to have moderate to high sensitivity to changes in visual quality and residents are considered to have high sensitivity to changes in visual quality.

Two landscape units—Transportation Corridor and Residential—are in the project study area. The Transportation Corridor Landscape Unit includes I-10, Varner Road, and the UPRR. The topography increases rapidly in elevation on both sides of the corridor while the elevation of I-10 remains generally flat. This is a developing urban corridor and includes urban elements such as industrial/commercial buildings, lighting and signage mixed with ruderal vegetation. Views are limited to the corridors themselves with the exception of the westbound traffic lanes, which provide distant views of the San Bernardino Mountains to the northwest and San Jacinto Mountains to the west. The Residential Landscape Unit is located in the northwest quadrant of the I-10/Cook Street interchange. The relatively flat nature of the development limits the horizon views that are blocked by housing units and landscaping.

Environmental Consequences

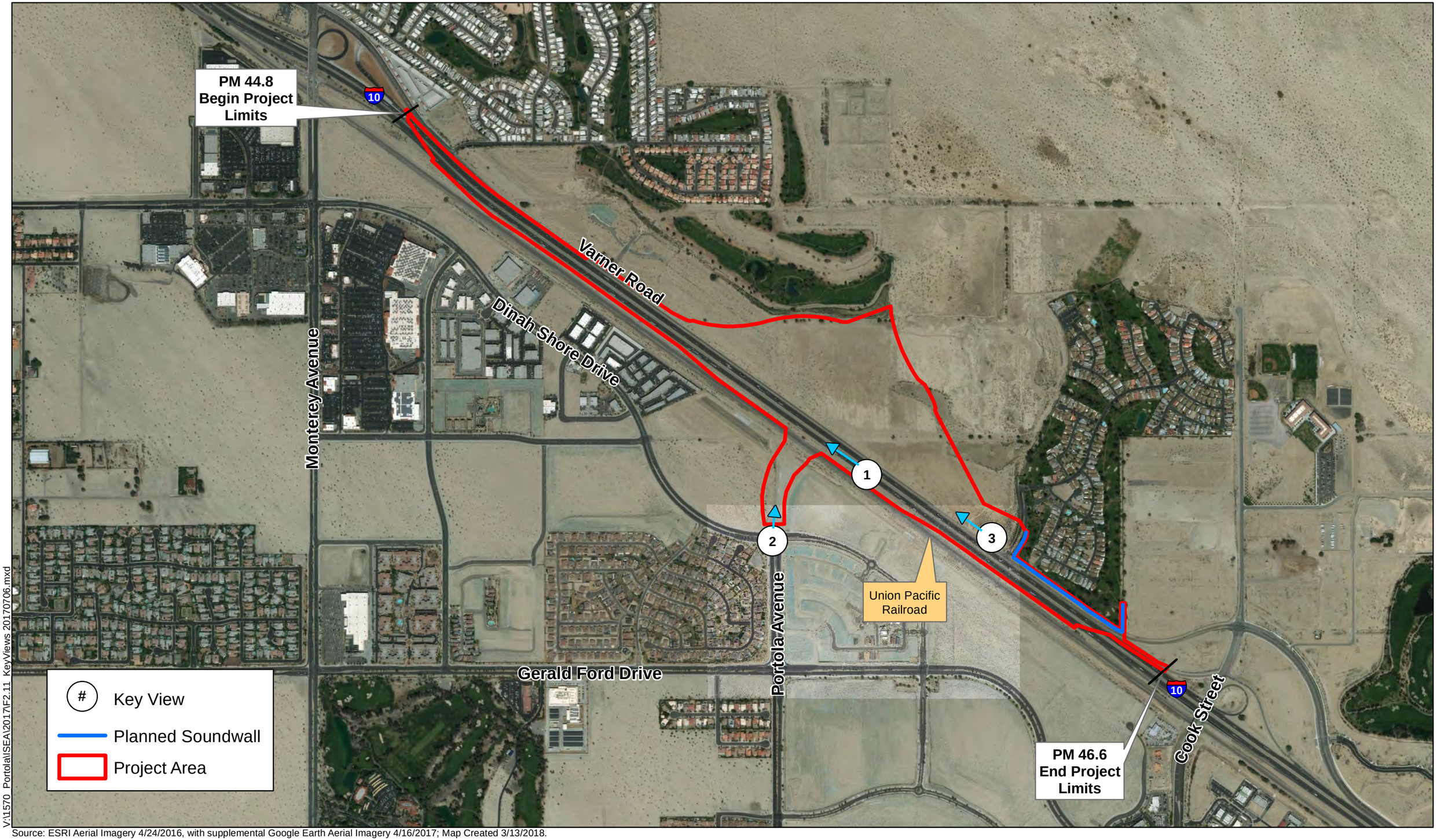
Permanent Impacts

Build Alternatives 2 and 3

Build Alternatives 2 and 3 would both construct a new interchange at Portola Avenue with similar transportation facilities. Alternatives 2 and 3 would have the same visual appearance, general footprint, vertical height, and aesthetic features except for the westbound ramp from southbound Portola Avenue. Alternative 2 would have a direct westbound ramp from southbound Portola, whereas Alternative 3 incorporates a westbound loop ramp for both northbound and southbound Portola traffic. The lack of a dedicated westbound on-ramp is not expected to change the analysis or impacts between the two proposed Build Alternatives so they are discussed together.

Two landscape units—Transportation Corridor and Residential—are in the project study area. The Transportation Corridor Landscape Unit includes I-10, Varner Road, and the UPRR. The underlying landform is the base of the Coachella Valley that I-10 and the UPRR follow in the project area. The topography increases rapidly in elevation on both sides of the corridor while the elevation of I-10 remains generally flat. This is a developing urban corridor and includes urban elements such as industrial/commercial buildings, lighting and signage mixed with ruderal vegetation. Views are limited to the corridors themselves with the exception of the westbound traffic lanes, which provide distant views of the San Bernardino Mountains to the northwest and San Jacinto Mountains to the west. The Residential Landscape Unit is located in the northwest quadrant of the I-10/Cook Street interchange. This unit is characterized by residential streets, residential properties, and ornamental vegetation. The relatively flat nature of the development limits the horizon views that are blocked by housing units and landscaping.

It is not feasible to study every available view of the proposed project site, In reviewing the areas surrounding the project, potential blockage by topographic features, buildings, block walls, and the UPRR tracks, Key Views 1, 2, and 3 were selected to analyze visual quality impacts. Key Views 1, 2, and 3 represent the Transportation Corridor Landscape Unit, the most sensitive viewer groups, and distinct visual characteristics in the project study area. The visual quality of each key view was quantified using an evaluation scale of 1-7 (1=Very Low, 4=Medium/Moderate, 7=Very High) for vividness, intactness, and unity as guided by the publication, Visual Impact for Highway Projects (FHWA 1981). The locations of key views relative to the project area are shown in Figure 2.11 and the existing and simulated conditions for these key views are shown in Figures 2.12, 2.13, and 2.14.



V:\11570_PortolaISEA\2017\F2.11_KeyViews 20170706.mxd

Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

0 500 1,000 1,500 2,000 2,500 Feet

FIGURE 2.11
Key Views

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Key View 1

Key View 1, shown in Figure 2.12, depicts a driver's perspective. The photo was taken from westbound I-10 and faces towards the Monterey Avenue Interchange. The view represents the Transportation Corridor Landscape Unit and the perspective of the commuter viewer group.

From Key View 1, the overall design of the proposed new interchange is the same for both alternatives. Under Alternatives 2 and 3, the main physical change that would occur within this view is the construction of the new interchange and auxiliary lanes with the relocation of Varner Road to the north of the new interchange. Implementation of one of these alternatives would not substantially change or degrade the visual quality of this view.

Figure 2.12: Key View 1

Key View 1: Before Project (existing)

Key View 1: After Project (visual simulation)

The new interchange would be similar in height to the Monterey Avenue interchange and would create a similar “horizon” between the manmade and natural environments. With the proposed new interchange situated closer to Key View 1, the view shed “horizon” would increase the angle to view the mountainous background while restricting the view of some of the railroad infrastructure. In the overall landscape, views of the mountainous background would not be substantially changed at this Key View.

In the immediate vicinity, the new structure would remove and partially block some of the existing vegetation. With the addition of a new overcrossing and ramps, additional glare may occur. Minimization Measures VIS-1 and VIS-2 are proposed to minimize effects from vegetation removal. Minimization measures VIS-3 and VIS-4 are proposed to enhance the post-project aesthetic environment and minimize the glare of new concrete.

Key View 2

Key View 2, shown in Figure 2.13, depicts a driver’s perspective from northbound on Portola Avenue at the Dinah Shore Drive intersection. The view represents the Transportation Corridor Landscape Unit and the perspective of the resident viewer group.

Impacts for both Alternative 2 and 3 would be relatively the same from Key View 2. The dead end at Portola Avenue would be eliminated and replaced with a new 6 through-lane overpass that would extend Portola Avenue over I-10 and the UPRR. The most noticeable impact would be to drivers headed northbound on Portola Avenue. However, implementation of either one of the Build Alternatives would not substantially change or degrade the visual quality of this view.

Impacts as a result of the new 6-lane overcrossing at Portola Avenue would eliminate both the visual and physical termination resulting in an overall improved unity in the visual pattern. From View 2 both Build Alternatives would create a smooth transition between the manmade and natural environments versus the existing dead end view. Overall the visual quality from this Key View would improve with both of the alternatives.

However, impacts would also include the removal of existing vegetation and the construction of retaining walls and structures along the eastbound side to minimize impacts to the UPRR right of way. Minimization Measure VIS-1 is proposed to minimize effects from vegetation removal. The impacts from the retaining walls would not be substantial from Key View 2 given the north facing direction from this view, but the minimization measures VIS-3 and VIS-4 would help to reduce the visual impacts of possible glare from new concrete structures and would help to soften the post-project visual setting.

Figure 2.13: Key View 2

Key View 2: Before Project (existing)

Key View 2: After Project (visual simulation)

Key View 3

Key View 3, shown in Figure 2.14, represents the westbound Varner Road view from a driver's perspective at the residential entrance. The photo was taken looking from this point towards the proposed project site and west towards the existing Varner Road alignment. The view represents the Transportation Corridor Landscape Unit, the driver viewer group and the commuters from the Residential Landscape Unit behind a nearby sound wall. Varner Road and I-10 dominate this view shed, with the San Bernardino Mountains and San Jacinto Mountains as a backdrop.

As with Key Views 1 and 2, impacts for both Build Alternatives would be about the same from Key View 3. The main change in the view shed would be the construction of the new interchange and auxiliary lanes with the relocation of Varner Road to the north of the new interchange.

The Key View would be impacted by the new interchange in the background; however the distant view of the new interchange would not substantially change or degrade the visual quality of this view, under both Build Alternatives. The foreground from this view would be impacted with the loss of vegetation which would now be dominated with the new auxiliary lanes and relocation of Varner Road.

The addition of the new overcrossing and ramps may generate a glare from the new concrete. However, all of these impacts can be minimized. Minimization Measures VIS-1 and VIS-2 are proposed to minimize effects from vegetation removal. Minimization Measures VIS-3 through VIS-4 are proposed to reduce the glare of new concrete and enhance the post-project aesthetic environment.

Figure 2.14: Key View 3

Key View 3: Before Project (existing)

Key View 3: After Project (visual simulation)

No-Build Alternative

The No-Build Alternative would not result in any changes to existing views in the project area. As a result, no impacts to visual resources or aesthetics in the project area would occur.

Temporary Impacts

Build Alternatives 2 and 3

Implementation of either of the build alternatives would result in temporary visual impacts due to grading, presence of construction equipment, and other construction activities. These changes to the visual environment are short term (18-24 months) and are generally considered not substantial. The project will be constructed in accordance with the Caltrans Standard Construction Specifications, which include practices to reduce visual impacts, noise, and air emissions during construction. Any minor construction impacts to visual resources would cease when the project is fully constructed.

No-Build Alternative

The No-Build Alternative would not result in any construction activities that could change existing views in the project area. As a result, no impacts to visual resources or aesthetics in the project area would occur.

Avoidance, Minimization and/or Mitigation Measures

The following minimization measures for visual impacts will be implemented.

VIS-1: Revegetation: A replanting plan shall be developed to address revegetation and shading in coordination with Caltrans Landscape Architecture staff for areas within the state right of way as well as with County and City staff. The replanting shall take place after construction of the roadway. The landscape plan shall include the following components:

- **VIS-1a:** Plant native trees and/or shrubs along Portola Avenue and I-10 to be visually pleasing and consistent with the natural surroundings.
- **VIS-1b:** Plant drought-resistant plants along the I-10 corridor to be consistent with the General Plan, which promotes use of xeric (adapted to arid conditions) landscaping techniques.
- **VIS-1c:** Incorporate soil erosion control plants into the embankments and within the areas of steeper slopes.
- **VIS-1d:** The City of Palm Desert will ensure that replanted vegetation adjacent to sound walls and retaining walls will not be highly sensitive to shadow and shade. All plantings will be drought-resistant and, where applicable, shadow resistant to ensure plant longevity and the sustainable use of water resources.

VIS-2: Tree mass loss in each view shed would be minimized by avoiding removal of trees.

VIS-3: Incorporate aesthetic treatments on walls, enhanced hardscape, and trees and/or shrubs.

VIS-4: The lighting fixtures will be designed to minimize glare on adjacent properties and the preservation of the community's night sky. Lighting will be shielded with non-glare hoods, and focused within the project right of way.

2.1.7 Cultural Resources

Regulatory Setting

The term "cultural resources," as used in this document, refers to the "built environment" (e.g., structures, bridges, railroads, water conveyance systems, etc.), 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. Procedures for compliance with PRC Section 5024 are outlined in a Memorandum of Understanding (MOU)[1] 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.

Affected Environment

Potential cultural resources in the project area were analyzed in the September 2007 Historic Property Survey Report (HPSR), the June 2011 First Supplemental HPSR, the September 2014

[1] The MOU is located on the SER at http://www.dot.ca.gov/ser/vol2/5024mou_15.pdf

Second Supplemental HPSR, and July 2017 Third Supplemental HPSR. The 2007 HPSR, 2011 First Supplemental HPSR, and 2017 Third Supplemental HPSR include an Area of Potential Effect (APE) map and an Archaeological Survey Report (ASR). These studies are summarized in this section.

A records search was conducted at the Eastern Information Center (EIC) of the California Historic Resources Information System, located at the University of California, Riverside on June 14, 2006. An updated records search was performed on May 16, 2017. The records searches identified that 50 cultural resource studies have been previously conducted within a 1-mile radius of the APE. The record search identified two isolated finds, one historic and one prehistoric, and the UPRR tracks within the APE. No other cultural resources, archaeological resources, or historic properties were identified within the APE.

The Native American Heritage Commission was contacted on April 14, 2006 and a response was received on May 10, 2006 with a list of Native American contacts from tribes that might have an interest in the project. Consultation letters were sent to each of these contacts in November of 2006 (16 individuals representing 10 groups) and follow up phone calls were made between December 2006 and April 2007 to provide a diligent attempt at establishing contact. Several Native American parties responded requesting Native American Monitoring during construction; however, responses were provided via email and telephone on March 22, 2007, citing the policy for Native American monitors. Caltrans does not support use of Native American monitors when archaeological research suggests a low likelihood of finding undocumented subsurface artifacts during construction.

As part of the 2017 Third Supplemental HPSR, the Native American Heritage Commission was contacted again on May 15, 2017, and a response was received on May 17, 2017 with an updated list of Native American contacts. Caltrans District 8 Native American Coordinator, Gary Jones, stated that only the Cahuilla groups on the list should be contacted. These groups were notified by letter on May 31, 2017 to update them on the project's status. Follow-up phone calls were placed in June 2017. Several Native American parties responded with requests for Native American Monitoring during construction. Caltrans was made aware of these requests and responded to these parties with the same policy citation that Caltrans does not support use of Native American monitors when archaeological research suggests a low likelihood of finding undocumented subsurface artifacts during construction.

As part of the original HPSR in 2006, a pedestrian survey of the project area was performed by a qualified archaeologist and no evidence of cultural resources was detected, except for the railroad area, which is addressed below. The UPRR tracks were the only potential resource identified within the APE requiring further study, but had not been previously recorded within the APE at the time of the 2006 survey. The First Supplemental HPSR prepared in 2011 provided another pedestrian survey of minor additional areas that needed to be added to the APE. No cultural resources were observed during this survey. The Second Supplemental HPSR prepared in 2014 documented design changes in the project and modification of the APE limits. No additional cultural resource identification efforts or analysis was required. The Third Supplemental HPSR prepared in 2017 provided another pedestrian survey of the entire APE. The two isolated finds could not be relocated, and no evidence of cultural resources was detected. While the UPRR tracks in this area had been documented at the time of the 2017 survey, access to UPRR right of way was not available.

The historic railroad route is exempt from further review under Attachment 4 of the Section 106 PA. The APE appeared to be disturbed, with a low potential for intact buried resources. Therefore, no archaeological resources are expected to be affected by the proposed project. As documented in the HPSR, Caltrans determined a "Finding of No Historic Properties Affected" in accordance

with Section 106 PA Stipulation IX. A and 36 CFR 800.4(d)(1). Also, as documented in the original HPSR, First Supplemental HSPR, Second Supplemental HPSR, and Third Supplemental HPSR under CEQA, Caltrans has made the finding that the proposed project will result in a finding of no impact.

Environmental Consequences

Permanent Impacts

Build Alternatives 2 and 3

Based upon the analysis performed for this proposed project no properties requiring evaluation are present within the project APE. As assigned by FHWA, Caltrans has determined a Finding of No Historic Properties Affected, according to Section 106 PA Stipulation 1X.A and 36 CFR 800.4(d)(1), is appropriate for this undertaking. No permanent impacts to cultural resources are anticipated.

No-Build Alternative

The No-Build Alternative does not involve construction and would not result in any potential to permanently impact cultural resources.

Temporary Impacts

Build Alternatives 2 and 3

Based upon the analysis performed for this proposed project no properties requiring evaluation are present within the project APE. As assigned by FHWA, Caltrans has determined a Finding of No Historic Properties Affected, according to Section 106 PA Stipulation 1X.A and 36 CFR 800.4(d)(1), is appropriate for this undertaking.

No temporary impacts to cultural resources are anticipated; however, if cultural materials are discovered during construction, all earth-moving activity within 60 feet of the immediate discovery area will be diverted until a Caltrans approved qualified archaeologist can assess the nature and significance of the find.

Additionally, if human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendent (MLD). The person who discovered the remains will contact Gary Jones, District 8 Native American Coordinator at (909) 383-7505 or District 8 Cultural Studies Branch Chief Andrew Walters at (909) 383-2647 so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

No-Build Alternative

The No-Build Alternative does not involve construction and would not result in any potential to temporarily impact cultural resources.

Avoidance, Minimization, and/or Mitigation Measures

No measures are required.

2.2 Physical Environment

2.2.1 Hydrology and Floodplain

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 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 one percent chance of being exceeded in any given year." An encroachment is defined as "an action within the limits of the base floodplain."

Affected Environment

The following information is based upon the Location Hydraulic Study, October 2017, the Summary Floodplain Encroachment Report, October 2017, and the Portola Avenue/I-10 Freeway Interchange Regional Floodplain Hydraulic Impacts/Mitigation Assessment, December 2017.

The proposed project is located in the Upper Whitewater River Watershed and portions of the project area are in both the Town of Thousand Palms Subwatershed and the Town of Biskra Palms-Whitewater River Subwatershed (Figure 2.15). The proposed project is partially located in a 100-year floodplain. Areas north of I-10 are currently designated Zone AO and Flood Zone X (Figure 2.16) by the Federal Emergency Management Agency (FEMA). Zone AO is an area subject to 100-year flooding with depths ranging from 1 to 3 feet. This zone encompasses the project area north of I-10. The portion of the project located south of I-10 is located in Zone X, an area determined to be outside the 0.2% annual chance (500-year) floodplain.

Accumulated flows within the project area south of I-10 are directed into the Mid-Valley Stormwater Channel (MVSWC). The MVSWC is a regional trapezoidal drainage channel located south of and immediately adjacent to the UPRR right of way. The existing MVSWC drainage facility is discontinuous at the location of the proposed Portola Avenue extension. West of the discontinuity, the channel directs easterly flows into a detention basin located directly west of the proposed Portola Avenue New Interchange. Drainage patterns north of I-10 traverse open land in an easterly direction toward a retention basin at the southern end of the Tri Palm Golf Course and a retention basin at the northeastern quadrant of the project.

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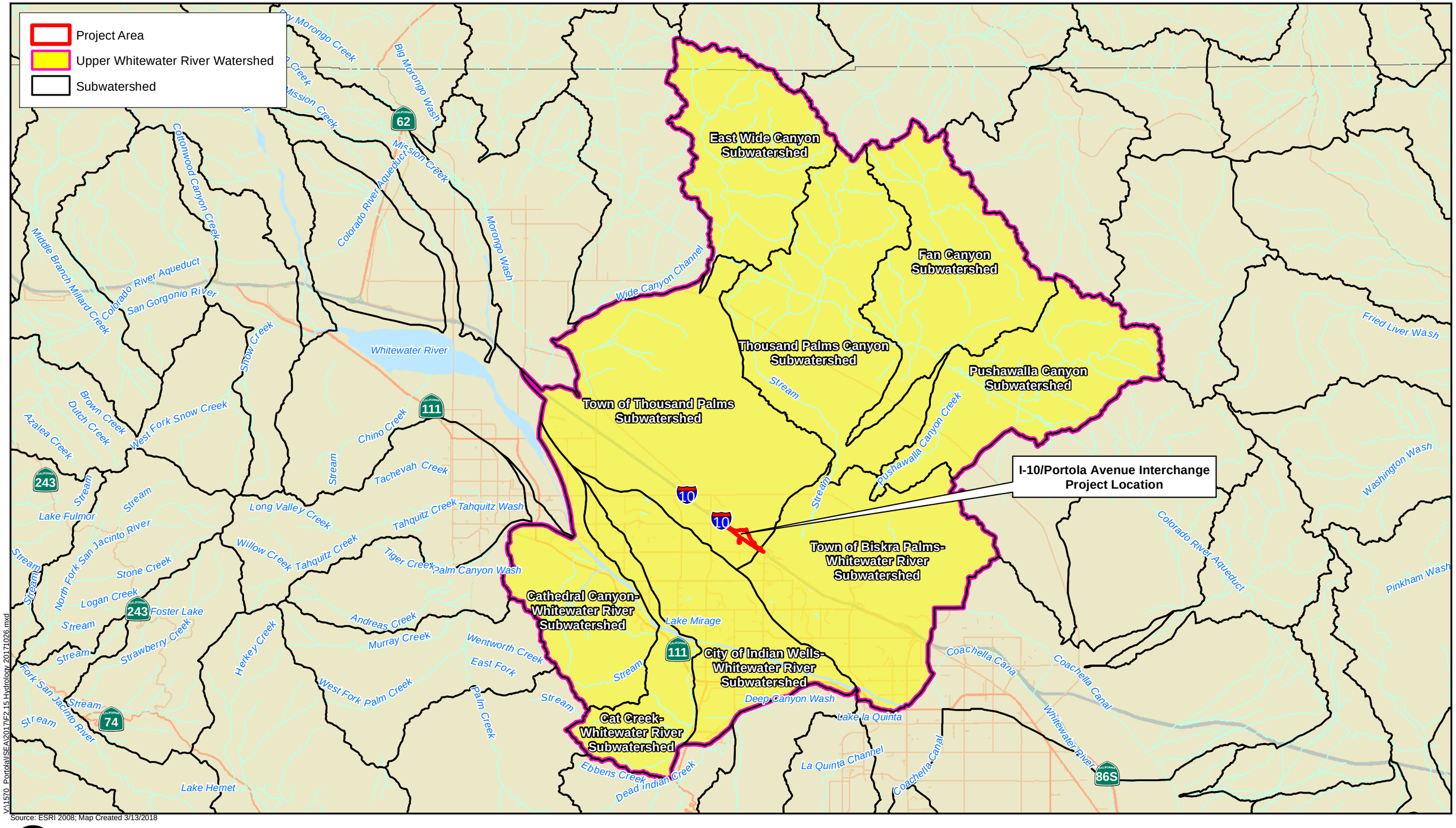

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Source: ESRI 2008; Map Created 3/13/2018

0 5 10 Miles

FIGURE 2.15
Hydrology and Watersheds

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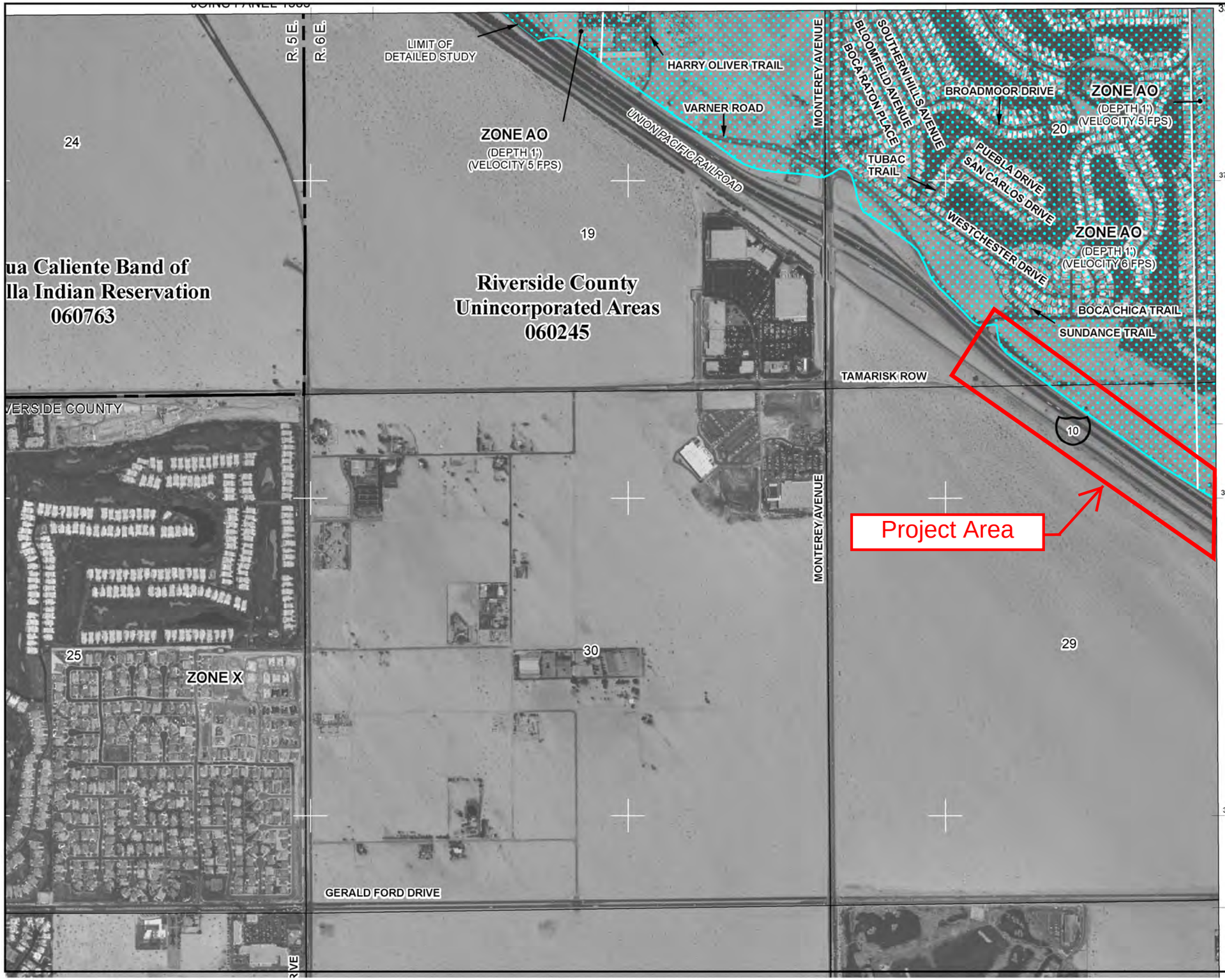

MAP SCALE 1" = 1000'

500 0 1000 2000 FEET

METER

PANEL 1595G

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 1595 OF 3805
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
AGUA CALIENTE BAND OF CAHUILLA INDIAN RESERVATION	060763	1595	G
PALM DESERT, CITY OF	060629	1595	G
RANCHO MIRAGE, CITY OF	060259	1595	G
RIVERSIDE COUNTY	060245	1595	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C1595G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

FIGURE 2.16
Page 1 of 2
FEMA MAPS

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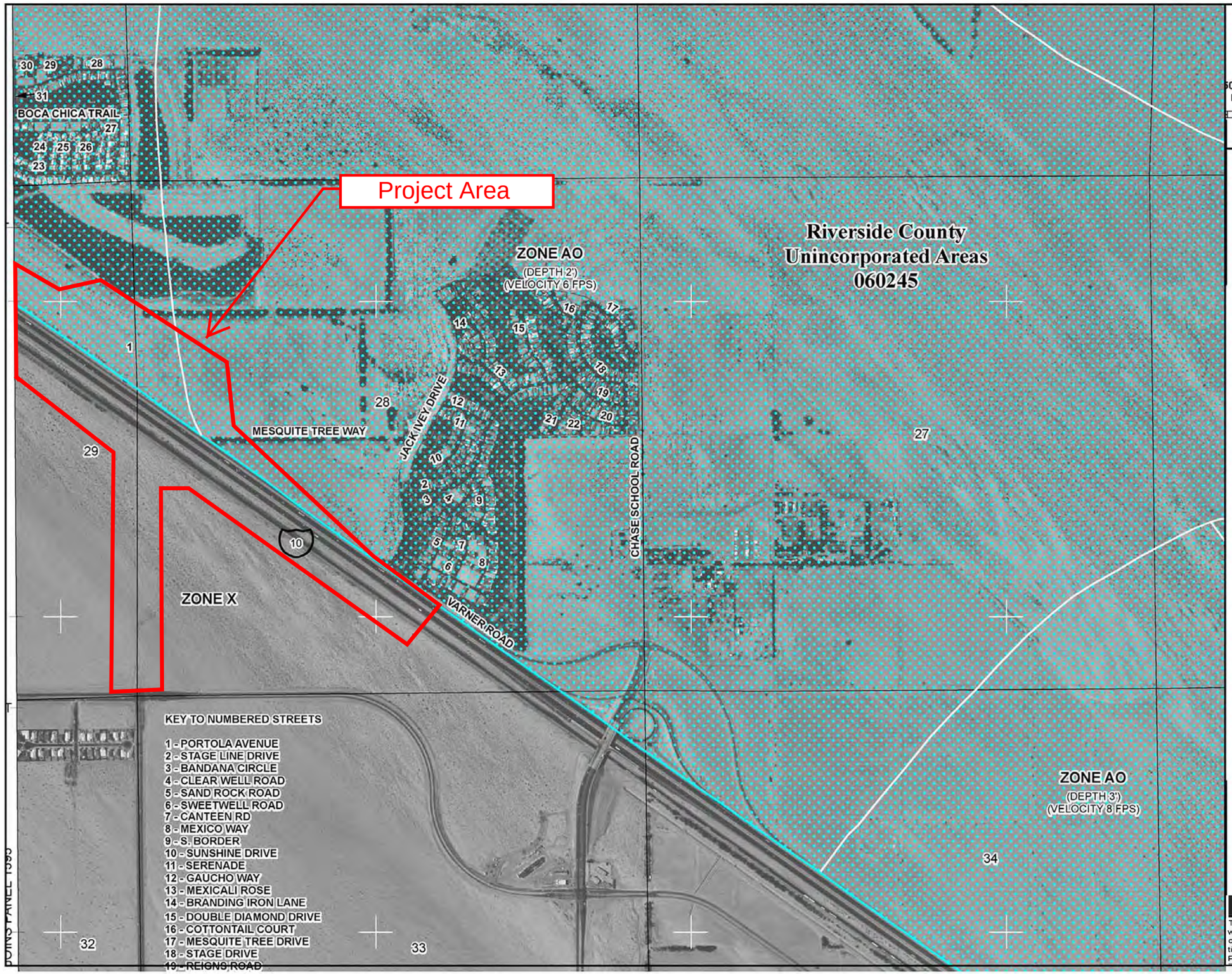

MAP SCALE 1" = 1000'

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FEET

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NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1615G

FIRM

FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 1615 OF 3805

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
PALM DESERT, CITY OF	060529	1615	G
RIVERSIDE COUNTY	060245	1615	G

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C1615G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

FIGURE 2.16
Page 2 of 2
FEMA MAPS

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The proposed project is located within the limits of the area covered by the North Cathedral City and Thousand Palms Stormwater Management Plan. This Management Plan was updated in 2014 by the Coachella Valley Water District (CVWD). The updated Management Plan shows that 100-year flood depths in the project area range from 0 to 5 feet and the velocities range from 0 to 6 feet per second (fps). The maximum water surface elevations range from approximately 170 to 210 feet mean sea level (NAD83). Based on these new 100-year flood depths, CVWD determined the existing Flood Insurance Rate Map (FIRM) needed to be updated. CVWD is in the process of updating the FIRM.

As a result of the existing FIRM needing to be updated, additional hydrological analysis and floodplain modeling was required for the proposed project, which was included in the Location Hydraulic Study and Summary Floodplain Encroachment Report. These documents were based on the findings of the 2017 Portola Avenue/I-10 Freeway Interchange Regional Floodplain Hydraulic Impacts/Mitigation Assessment.

Environmental Consequences

Permanent Impacts

Build Alternatives 2 and 3

No impacts are expected to occur to the MVSWC as the segment where Portola Avenue crosses the canal in the project area is already discontinuous and would not need to be modified to accommodate the proposed new interchange facility. The proposed fill grading north of I-10 would affect the lands easterly drainage path into the existing retention basin located at the eastern end of the project. Cross culverts sized for the 100-year storm event would be used to carry flows through Portola Avenue to the basin. Grading necessary to realign Varner Road, east of Portola Avenue would fill in approximately 50,000 cubic feet of the existing retention basin. To compensate for this, two infiltration basins located south of the existing basin would be constructed to accommodate discharges impacted by the realigned Varner Road. An additional infiltration basin would be installed along the northwestern quadrant to handle supplemental drainage flows. With the inclusion of the additional infiltration basins, the floodplain would not be negatively impacted.

Per the Location Hydraulic Study and Summary Floodplain Encroachment Report, the introduction of this new interchange in the floodplain without any consideration for minimizing flooding impacts would have increased the water surface elevation by 1 foot for Alternative 2 and less than 1 foot for Alternative 3 as this alternative does not provide a northbound loop on-ramp. To address this increase in water surface elevation, the project design was revised to incorporate a detention basin and flood channel along the north side of Varner Road under both build alternatives to ensure this project does not substantially impact flooding or the floodplain. These project features would ensure that the project has a negligible impact on the base flood elevation. A substantial encroachment would not occur since there would be minimal potential for interruption or termination of a transportation facility that is needed for emergency vehicles or provides a community's only evacuation route. There would be no substantial risk to life or property, and there would be no substantial adverse impact on natural and beneficial floodplain values.

As a result of the proposed project, changes to the 100 year FEMA floodplain would occur and a Letter of Map Revision to FEMA's floodplain maps will be required after construction. A Conditional Letter of Map Revision (CLOMR) will be obtained from FEMA during Final Design and prior to construction.

Based on these project features, neither Alternatives 2 nor 3 would be inconsistent with existing watershed and floodplain management programs. As defined in 23 CFR 650.105, neither Alternatives 2 nor 3 would result in a significant encroachment on a floodplain.

Since the project area north of I-10 is contained entirely within the existing flood hazard area, the functionality of the I-10/Portola Avenue New Interchange would not increase risks (to life or property). The project would cause no substantial impacts to the Special Flood Hazard Area.

Since the I-10/Portola Avenue New Interchange would create no additional hydrologic risks and produce no change to floodplain values, the proposed project is not considered a substantial encroachment. It would not support incompatible base floodplain development and would not alter the present state of the special flood hazard area.

No-Build Alternative

The No-Build Alternative would not cause any changes to floodplain or hydrological resources in the project area.

Temporary Impacts

Build Alternatives 2 and 3

Hydrology and the floodplain are not expected to be directly impacted by temporary construction activities. Construction would not result in a blockage of a floodway nor would it result in increased flooding risk in the surrounding areas. No temporary impacts to hydrology and floodplain are anticipated.

No-Build Alternative

The No-Build Alternative does not involve construction and would not result in any potential to temporarily impact floodplain or hydrological resources.

Avoidance, Minimization, and/or Mitigation Measures

No measures are required.

2.2.2 Water Quality and Storm Water Runoff

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 source[2] 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 storm water 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.

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

- 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. The Regional Water Quality Control Boards (RWQCB) administers this permitting program in California. Section 402(p) requires permits for discharges of storm water 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 United States. 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 Standard permits. There are two types of General permits: Regional permits and Nationwide permits. 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 Standard permits. There are two types of Standard permits: Individual permits and Letters of Permission. For Standard permits, the USACE decision to approve is based on compliance with U.S. Environmental Protection Agency's (U.S. EPA) 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 toxic effluent[3] 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

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

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 storm water 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 storm water, that is designed or used for collecting or conveying storm water." The SWRCB has identified Caltrans as an owner/operator of an MS4 under federal regulations. The Department's MS4 permit covers all Department rights-of-way, properties, facilities, and activities in the state. The SWRCB or the RWQCB issues NPDES permits for five years, and permit requirements remain active until a new permit has been adopted. Work outside of State rights of way will be addressed by Order No. R7-2008-001, NPDES CAS617002 or "Whitewater River Stormwater Management Plan," dated January 2015 revised or any later version of this permit.

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. 2014-0077-DWQ (effective July 1, 2014) and Order No. 2015-0036-EXEC (effective April 7, 2015) has three basic requirements:

1. Caltrans must comply with the requirements of the Construction General Permit (see below);

2. Caltrans must implement a year-round program in all parts of the State to effectively control storm water and non-storm water discharges; and
3. Caltrans storm water 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, Caltrans developed the Statewide Storm Water Management Plan (SWMP) to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns responsibilities within Caltrans for implementing storm water 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 Caltrans uses to reduce pollutants in storm water and non-storm water discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of Best Management Practices (BMPs). The proposed project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address storm water 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 storm water discharges from construction sites that result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least one acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than one 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 Storm Water Pollution Prevention Plans (SWPPPs); to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

The 2009 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 storm water 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 one 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 United States 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 Waste Discharge Requirements (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.

Affected Environment

The project site is located within the Upper Whitewater River watershed which generally drains southeast to the Salton Sea. North of I-10, the project is within the 719.46 hydrologic sub-area, and south of I-10, the project is also within the 719.47 hydrologic sub-area. No 303(d) listed waterbodies are within or near the project site. The nearest 303(d) listed waterbody is a portion of the Coachella Valley Storm Water Channel beginning approximately 7 miles southeast of the project site (RWQCB Integrated Report [Clean Water Act Section 303d], 2010). The Coachella Valley Storm Water Channel is not directly connected to hydraulic features in the project area. The main drainage feature in the project area is an isolated portion of the Mid-Valley Storm Water Channel and an associated detention basin located south of the I-10 freeway. The project is located in the Colorado River Basin RWQCB Region 7 (RWQCB 2017).

Several hydrologic features were assessed by biologists in the Natural Environment Study (NES) (2011). These consisted of one concrete-lined drainage ditch and four detention basins. At the southwest quadrant, a concrete-lined drainage ditch and one associated detention basin are located along the south side of I-10. The concrete-lined ditch and associated detention basin appear to catch stormwater runoff from adjacent commercial development. The channel and detention basin are considered isolated because they do not connect to a traditional navigable waterway and would not be regulated by the USACE. Nor would either one be regulated by CDFW because they both lack characteristics of a natural stream or lake (e.g., riparian vegetation).

The two detention basins in the northwest portion of the project site would be affected by the proposed project. Groundwater in these basins is used for public and domestic water supply and for irrigation. The main water-bearing units are gravel, sand, silt, and clay derived from surrounding mountains. Public-supply wells in Coachella Valley are completed to depths between 490 and 900 feet and consist of solid casing from the land surface to a depth of 260 to 510 feet. Recharge to the groundwater system is primarily runoff from the surrounding mountains, and by direct infiltration of irrigation. The primary sources of discharge are pumping wells, evapotranspiration, and underflow to the Salton Sea and Imperial Valley areas (California SWRCB, 2015)

Currently, these two detention basins appear not to have any connection with adjacent golf course runoff. Based on rainfall information and aerial photograph review, these two detention basins do not appear to support the detention of water for any current land use practices. These basins are also considered isolated.

Environmental Consequences

Build Alternatives 2 and 3

Permanent Impacts

Build Alternatives 2 and 3 would result in an increase in impervious surfaces in the project area. Alternative 2 would result in a very minor additional amount of impervious surface area due to construction of the dedicated westbound on-ramp; however this difference in impervious surface is not considered substantial enough to change the proposed permanent BMPs to address water run-off. As a result, these permanent water quality impacts for the two Build Alternatives are considered the same and are discussed under one section. Specific values documented in this environmental document are associated with Build Alternative 2 since it is slightly larger than Build Alternative 3 but in practical terms the impacts would be the same.

The existing impervious surfaces in the project area include approximately 27.9 acres. Post project impervious surfaces are expected to be approximately 31.7 acres. An additional 3.8 acres of impervious surfaces will be constructed. In order to effectively treat stormwater and the new flows generated by this additional impervious surface, three infiltration basins are proposed north of I-10 and would replace the two basins that are already present in the project area. The first basin would be constructed between I-10 and the westbound I-10 on-ramp. This basin would provide capacity to treat 11 acres of new impervious surfaces. The second basin would be placed within the westbound I-10 loop on-ramp, and would provide capacity to treat four acres of impervious surface area. The third basin would be placed between the westbound I-10 off-ramp and I-10, just east of the loop ramp. This basin would accommodate runoff from I-10, the off ramp, and a section of Varner Road and would have capacity to treat an impervious area of approximately 6.5 acres.

Alternatives 2 and 3 are designed such that requirements of Caltrans' MS4 permit would be met, and as a result, permanent impacts to water quality would not be substantial. Infiltration basins would be sized to intercept on-site 100-year flows and may potentially be used to receive additional runoff from future developments planned between Varner Road and the I-10 westbound ramps. Other permanent BMPs designed to mitigate erosion and sedimentation control may include but would not be limited to the following: installation of replacement landscaping, construction of slopes 1:4 or flatter, placement of hydraulic mulch on steeper cut slopes, placement of straw on fill slopes to minimize erosion, improvement of drainage facilities to handle excess runoff, and construction of sediment deposition basins. With inclusion of these infiltration basins, additional storm water run-off generated from the additional impervious surfaces would be contained within the project area and fully treated through filtration and infiltration.

Temporary Impacts

Water quality pollutants of concern during construction of the Build Alternatives include sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and other chemicals. Each of these pollutants on its own or in combination with other pollutants can have a detrimental effect on water quality.

Construction activities for the proposed project will include clearing, grubbing, grading, stockpiling of materials, excavation for bridge support structures and local roadways, retaining and sound wall construction, utility work, construction of new water quality facilities (detention basins), and other construction actions.

Water features in the project area are typically dry for most of the year and usually only carry water during or immediately after storm events. In order to control the impact of erosion, sedimentation, and other pollutants of receiving waters, coverage under the SWRCB Construction General Permit will be obtained which will require the implementation of BMPs to eliminate or reduce the discharge of pollutants in storm water discharges, and prohibits the discharge of non-storm water from the construction site as these non-storm water discharges are likely to carry pollutants to receiving waters.

The project will comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) General Permit, for Statewide Storm Water Discharges Associated with Construction and Land Disturbance for 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) and any subsequent permit as they relate to construction activities. Additionally, the project will comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) Permit, Statewide Storm Water Permit and Waste Discharge Requirements for this State of California, Department of Transportation order number 2012-0011-DWQ, NPDES No. CAS00003.

Under the Construction General Permit, to ensure project compliance NPDES permit, the project proponent will submit a Notice of Intent (NOI) to the State Water Resources Control Board at least 14 days prior to the start of construction, which includes preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP implements BMPs that are often used for reducing water quality impacts associated with construction. These construction BMPs would be designed to minimize erosion and sedimentation and prevent spills. In addition, the SWPPP shall identify equipment storage locations, cleaning and maintenance areas, points of ingress and egress to the construction site etc. Implementation of the SWPPP will ensure the project is in compliance with the requirements of NPDES and temporary impacts to water quality during construction would not be substantial. Upon completion of construction and stabilization of the site, the project proponent will submit a Notice of Termination (NOT) to the Regional Water Quality Control Board.

Groundwater in the project area is typically encountered at depths of greater than 100 feet and is not expected to be encountered during project construction. No impacts to groundwater or groundwater quality are anticipated.

No-Build Alternative

Under the No-Build Alternative, no improvements within the project area would be made other than routine maintenance. Therefore, no permanent or temporary water quality impacts would be expected to occur.

Avoidance, Minimization, and/or Mitigation Measures

No measures are required.

2.2.3 Geology/Soils/Seismic/Topography

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 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. Caltrans' Office of Earthquake Engineering is responsible for assessing the seismic hazard for Caltrans projects. Structures are designed using Caltrans' Seismic Design Criteria (SDC). The SDC provides the minimum seismic requirements for highway bridges designed in California. A bridge's category and classification would determine its seismic performance level and which methods are used for estimating the seismic demands and structural capabilities. For more information, please see Caltrans' Division of Engineering Services, Office of Earthquake Engineering, Seismic Design Criteria.

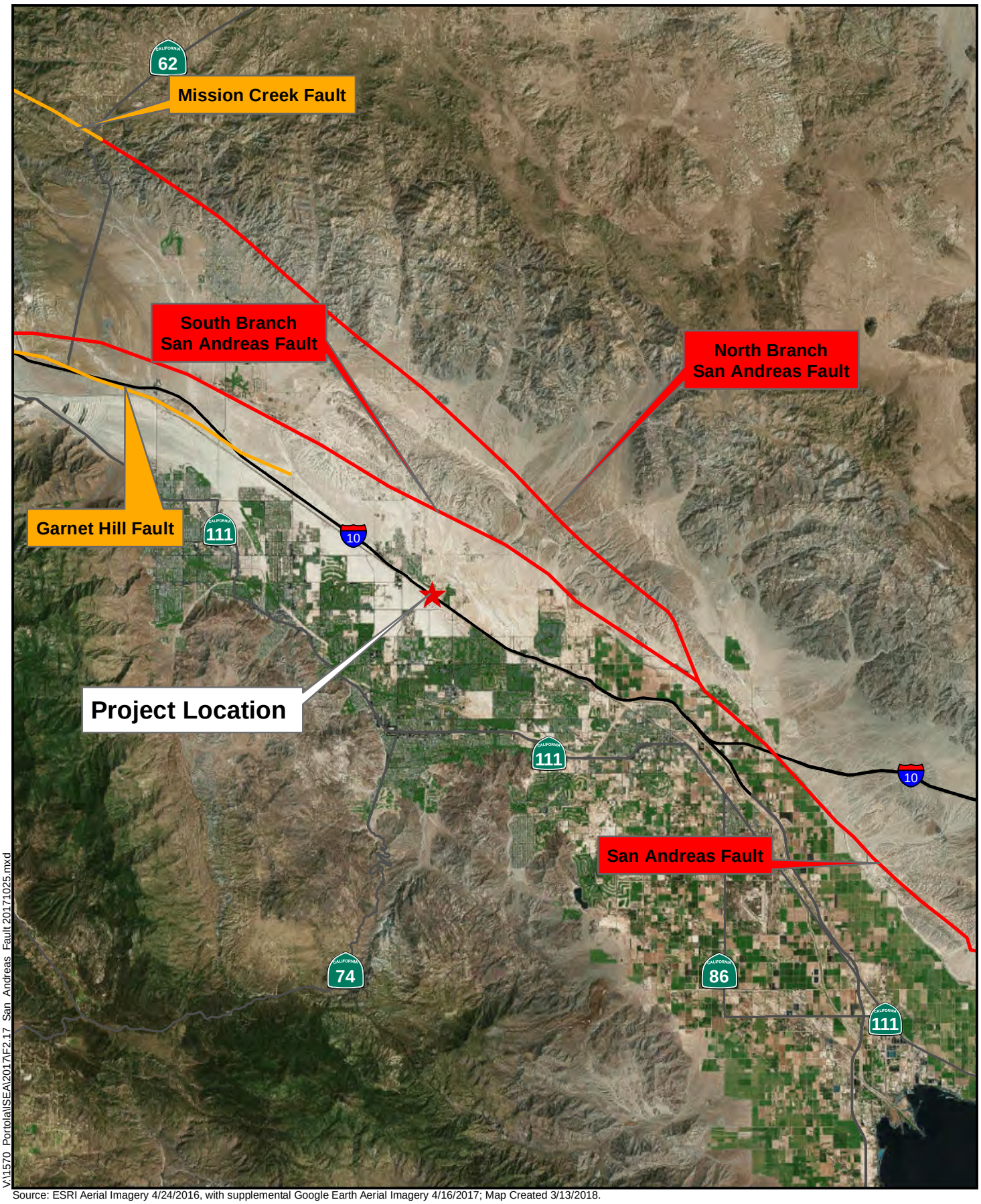
Affected Environment

This section is a summary of the information provided in the 2016 Preliminary Materials Report and the 2012 Preliminary Foundation Report. The project site is generally flat without unique geological features. The project site is underlain by recent alluvial deposits consisting of sands. The 2010 Geologic Map of California (California Geological Survey 2010) shows that the project site is located on Quaternary alluvium. The 1965 Geologic map of California: Santa Ana Sheet shows that the project site is located on Quaternary alluvium to Quaternary Dune Sand, both of which are recent sediments. Geotechnical borings for the proposed project indicate the sands at the surface generally extend to a depth of at least 10 feet, with the exception of a surface clayey sand layer at the northwest quadrant (Preliminary Materials Report 2016).

The study area lies within the western part of the Coachella Valley near the juncture of three mapped geomorphic provinces. They are the Transverse Ranges, the Peninsular Ranges, and the Colorado Desert. This upper Coachella Valley area slopes gently to the southeast to form a broad alluvial plain. The intermittent Whitewater River and several smaller washes cross the plain to drain the San Bernardino Mountains on the north and west.

The San Andreas Fault Zone crosses the Coachella Valley just north of the site, where it is identified by two main traces (Matti et. al., 1985). These two faults are known as the Mission Creek Fault, and the Banning Fault. Both faults are graphically shown to be within four miles of the project site and a third fault, the Garnet Hill Fault, is depicted as passing within approximately 2 miles to the north (Proctor, California Division of Mines and Geology, 1968). Figure 2.17 shows the locations of the local faults in relation to the proposed project area.

Based mainly on gravity geophysical survey (Proctor, 1968), the Garnet Hill Fault is believed to be buried at some unknown depth in the alluvial soils north of the site. Proctor reported that the Garnet Hill Fault aligns with mapped fault traces that combine for a fault length of at least 11-miles. The Garnet Hill knoll appears to represent a low anticline faulted up along the north side of the fault, approximately 8 miles west of the site. The age of the last movement and seismic history are undefined. However, the Garnet Hill Fault displayed ground cracking along surface trace after the 1986 North Palm Springs earthquake. This was not surface rupture, however, but was due to strong shaking.



V:\1570_Portola\SEA\2017\F2.17_San_Andreas_Fault_20171025.mxd

Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

0 5 10 Miles

FIGURE 2.17
Fault Zones

Environmental Consequences

Permanent Impacts

Build Alternatives 2 and 3

The proposed project is designed in accordance with design and construction requirements of the Caltrans Highway Design Manual, Caltrans Design Specifications, and applicable seismic standards. Structures would be designed according to recommended seismic values as defined by the California Building Code 2007. As a result, no substantial exposure to strong seismic ground shaking or seismic-related ground failure, including liquefaction and landslides, is anticipated. The project is located on the existing I-10, at a generally flat topography, and as a result would not expose people to risk of landslides. The project is also not located within a known earthquake fault zone as mapped in the Alquist-Priolo Earthquake Fault Zoning Map.

A liquefaction evaluation of the site soils was performed to determine the extent of liquefaction at the site. Liquefaction is the process in which the seismic shear waves cause an increase in the pore water pressure in a cohesionless (sands and some non-cohesive silts) soil strata. This increase in pore water pressure reduces the effective stress confining the soil. The reduction in effective stress causes a reduction in the shear modulus of the soil, which in turn, results in increased soil deformation. Also associated with liquefaction is a loss in bearing strength. As part of the Preliminary Foundation Report (2012), the liquefaction study indicated a low chance of liquefaction occurring at the site, due to the lack of discernible groundwater in the upper 50 feet and the overall medium dense to dense nature of the site soils.

No-Build Alternative

Under the No-Build Alternative, no construction of new bridge structures or disturbance of existing soils would occur. Therefore, no permanent impacts to geology/soils/ seismic/topography resources are anticipated.

Temporary Impacts

Build Alternatives 2 and 3

Soils in the project area can suffer moderate erosion during or after construction. During construction activities excavated soil would be exposed, and there would be an increased potential for soil erosion compared to existing conditions. Staging and storage of materials will be done consistent with all State and federal regulations including the NPDES (see further discussion in Section 2.2.2. Construction BMPs such as perimeter controls around dirt piles, cover for dirt piles will minimize erosion of excavated materials during construction. As a post construction BMP, hydroseed will be applied to all exposed earthen slopes as an erosion control measure. With use of these types of BMPs, substantial soil erosion or loss of topsoil is not anticipated.

No-Build Alternative

Under the No-Build Alternative, no construction of new bridge structures or disturbance of existing soils would occur. Therefore, no temporary impacts to geology/soils/ seismic/topography resources are anticipated.

Avoidance, Minimization, and/or Mitigation Measures

No measures required.

2.2.4 Paleontology

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 federal and state law.

23 United States Code (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 and state law.

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

Affected Environment

The project site is underlain by recent alluvial deposits consisting of sands. The 2010 Geologic Map of California (California Geological Survey 2010) shows that the project site is located on Quaternary alluvium. The 1965 Geologic map of California: Santa Ana Sheet (Rogers, California Division of Mines and Geology, 1965) shows that the project site is located on Quaternary alluvium to Quaternary Dune Sand, both of which are recent sediments. Geotechnical borings for the proposed project indicate the sands at the surface generally extend to a depth of at least 10 feet, with the exception of a surface clayey sand layer at the northwest quadrant (Preliminary Materials Report 2016).

Historic aerial photographs dating from 1953 (AXM-1954), 1978 (AMI-RIV-78A), 1981 (AMI-RIV-81A), 1996 (NAPP2C), 2002 (NAPP3C), and 2011 show that the project site has largely been previously disturbed. The photographs indicate that project areas north of I-10 consisted of agricultural fields from 1953 to 1981. Areas south of I-10 consist of an unpaved Portola Avenue and some undisturbed areas adjacent to it. A drainage basin, roughly 30 feet deep, exists at the southwest quadrant and the UPRR runs along the south side of I-10. The southeast quadrant also consists of an area that has been graded and cleared.

Records and literature searches were conducted for the project by the San Bernardino County Museum (SBCM) (Scott, 2011) and Natural History Museum of Los Angeles County (NHMLA) (McLeod, 2011). Results of the records search and literature review by the SBCM demonstrate that the excavation in surficial recent sediments within the boundaries of the proposed study area has low potential to adversely impact substantial nonrenewable paleontological resources. SBCM stated that the study area is on surface exposures of recent alluvium and potentially recent dune sand. While these deposits may overlie older Pleistocene sediments, SBCM detailed that the Pleistocene older alluvium in this area, Ocotillo Conglomerate, is a “grey unconsolidated boulder conglomerate…not conducive to the preservation of fossil remains.” Also, no SBCM-recorded localities are within the project study area, nor have any been identified for several miles in any direction. Subsequently, SBCM recommended that “No paleontologic resource mitigation program is recommended for excavation in surficial recent alluvium (including dune sand) or Ocotillo Conglomerate at this time."

The NHMLA records search similarly indicated that grading of shallow excavations in the younger Quaternary Alluvium are unlikely to uncover vertebrate fossils. No NHMLA-recorded localities are within the project study area. The closest vertebrate fossil locality was a specimen of horse, *Equus*, discovered near Edom Hill, which is roughly 5 miles northwest and outside the project area.

Environmental Consequences

Permanent Impacts

Build Alternatives 2 and 3

Alternatives 2 and 3 are not anticipated to unearth or disturb paleontological resources. The project site is underlain by recent alluvial deposits consisting of sands and the project areas outside of I-10 largely require fill for the extension of Portola Avenue and the realignment of Varner Road. The project site has been largely disturbed by previous agricultural activities, grading, and transportation facilities. Deep construction activities for the overcrossing foundations would not yield fossils because footings supported on driven piles are being recommended for this project (Preliminary Foundation Report 2011).

Based on the site conditions and project information, further paleontological studies are not required as most of the project is located on younger alluvium, much of which has already been disturbed, and the project largely requires fill. As discussed in the project description, shallow excavations (6 feet deep) are not anticipated to go beyond the surface sand layer, which generally extends at least 10 feet throughout. While older geologic units are at greater depths, deeper project activities consist of driven piles (extending approximately 80 feet deep), which cannot yield fossils during construction. Additionally, SBCM did not recommend further studies and found the project to have a low potential to impact nonrenewable paleontological resources based on the geological context.

No-Build Alternative

Under the No-Build Alternative, no construction would occur so there would be no potential for permanent impacts to paleontological resources.

Temporary Impacts

Build Alternatives 2 and 3

Alternatives 2 and 3 are not anticipated to unearth or disturb paleontological resources. As such, temporary impacts to paleontological resources are not anticipated.

No-Build Alternative

Under the No-Build Alternative, no construction would occur so there would be no potential for temporary impacts to paleontological resources.

Avoidance, Minimization, and/or Mitigation Measures

No measures are required.

2.2.5 Hazardous Waste/Materials

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 of 1980 (CERCLA) and the Resource Conservation and Recovery Act of 1976 (RCRA). The purpose of CERCLA, often referred to as "Superfund," is to identify and clean up 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 clean-up 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 clean up 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.

Affected Environment

This section is based on the following sources:

- Hazardous Waste Initial Site Assessment (ISA) (March 2007)
- Hazardous Waste ISA Update Memorandum (June 2011)
- Hazardous Waste ISA Update Memorandum (August 2014)
- Hazardous Waste ISA Update Memorandum (February 2016)
- Hazardous Waste ISA Update Memorandum (June 2017)
- Aerially Deposited Lead Investigation Report (February 2007)

The 2007 ISA analyzed whether construction of the proposed project could be affected by any recorded or visible hazardous waste problems and recommended any additional work that may be needed. The following is a summary of the efforts performed to identify hazards and hazardous waste:

- Complete an Environmental Data Resources records database search to obtain a listing of properties or known incidents shown on federal and state databases for hazardous waste sites within the project area
- Conduct a site visit to identify any visible exterior areas of potential contamination that might impact the proposed project implementation
- Review historical aerial photographs of the subject site and surrounding areas to visually identify previous land uses

ISA memoranda were prepared in 2011, 2014, 2016, and 2017 to update the 2007 ISA and review if any new or recently identified hazards or hazardous waste had been identified in the vicinity of the project site which could affect health and safety standards during or after construction. The ISA and these memoranda were prepared to identify potential hazards and hazardous waste, such that, suitable additional testing and /or remediation can be performed prior to construction. Subsurface investigation, detailed geological mapping, and laboratory analysis of soil or groundwater samples were not part of these investigations.

The area north of the Portola Avenue and Dinah Shore Drive intersection and south of the UPRR railroad line is vacant. Electrical lines run aboveground along utility poles that roughly align with the proposed Portola extension. A pad-mounted transformer is located on the south side of the UPRR railroad tracks. The area on the north side of Varner Road, between the eastern boundary of the project area (Ivey Ranch Country Club) and the western boundary of the project area (Tri-Palm Estates) is a large, vacant property that is currently an inactive fenced-off construction site.

Land surrounding the project site along I-10 consists of residential, commercial, and vacant land uses. Land uses on the north side of Varner Road, which runs parallel and to the north of I-10, consist of a residential development, vacant land uses, the Ivey Ranch Country Club, and the Tri-Palm Estates.

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 that must be managed under the July 1, 2016, ADL Agreement between Caltrans and the California Department of Toxic Substances Control. This Agreement allows such soils to be safely reused within the project limits as long as all requirements of the Agreement are met.

V:\1570_Portola\SEA\2017\F2.18_Hazardous_Material_Releases_20170706.mxd

Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

N

0 1,000 2,000 3,000 4,000 Feet

FIGURE 2.18
Known Hazardous Material Release Locations

Environmental Consequences

Permanent Impacts

Build Alternatives 2 and 3

Impacts associated with hazardous materials or hazardous waste are limited to the construction phase of the project. Permanent impacts (direct or indirect) related to hazardous materials are not anticipated as a result of Alternatives 2 and 3 since operation of the project would not generate hazardous waste.

No-Build Alternative

The No-Build Alternative proposed no construction of transportation improvements in the project area. Therefore, the No-Build Alternative would result in no permanent impacts related to hazardous waste.

Temporary Impacts

Build Alternatives 2 and 3

A search of environmental records was performed by Environmental Data Resources, Incorporated and Track Info Services, LLC (Track Info). The database search evaluated potential hazardous waste in the project area as well as a 0.5 mile radius. No known hazards or hazardous waste were identified within the project area. As summarized in Table 2.14, one known release of hazardous substances was identified in the 0.5 mile buffer area that consisted of a leaking underground storage tank (LUST), with a "case closed" status conferred on March 3, 1996. Figure 2.18 shows the location of the LUST identified in the database search.

Table 2.14: Hazardous Material Releases within 0.5 Mile

Map Identification Number	Address	Database	Status
1	Texaco, Inc. 33100 Monterey Thousand Palms, CA 92276	LUST	A LUST-containing gasoline was discovered on November 17, 1989. The spill affected soil only. Remediation consisted of venting soils to allow volatilization of contaminants. Case was closed on March 3, 1996.

Source: Hazardous Waste Initial Site Assessment, 2007 rev. 2017

In addition to the Track Info database search, LUST reports from the SWRCB, GeoTracker Web site, and approved health risk assessment listings from the South Coast Air Quality Management District (SCAQMD) were reviewed. No LUST case was discovered within 0.5 mile of the project site. Historically, groundwater has been encountered in proximity to the project area at 155 feet below ground surface. The one LUST case in the vicinity impacted soil only and did not impact the area groundwater; therefore, groundwater contamination is not considered a potential environmental concern.

Visual site surveys were conducted on July 15, 2014, June 22, 2011, and May 29, 2006. The on-site surveys consisted of visually inspecting the project area and adjacent properties from the public right of way. During the site survey, no evidence of spills, accidental releases, or illegal dumping of hazardous materials or hazardous wastes was observed.

Based on the government records search, site survey, and aerial photograph review, the ISA and ISA update memoranda identified the following areas of concern for potential hazards or hazardous materials in the project area.

Aerially Deposited Lead (ADL)

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 Caltrans 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.

Historically, the I-10 has experienced high traffic volumes, and contributions of high levels of ADL due to high traffic volumes which could be a potential environmental risk in close proximity to the highway. Exposed soils adjacent to I-10 in the project area were considered to have potentially high concentrations of aerially deposited lead which could result in a health and safety concern during construction. Additional soil testing was needed.

In 2007, ADL soil testing was conducted along the eastbound and westbound unpaved shoulders of I-10 in the study area. Samples were analyzed in a laboratory and results were compared to the guidelines of the Department of Toxic Substances Control (DTSC) Lead Agreement issued to Caltrans, to develop recommendations for reuse of onsite soil. Concentrations of lead in the samples were not high enough to consider the soil in the project area to be a hazardous material due to aerially deposited lead. All soil in the test area down to 3.0 feet in depth may be treated as California non-hazardous for reuse or disposal purposes.

Pesticides and Herbicides

The project site was historically used for agricultural purposes. It is possible that the soils along unpaved portions of the project area could be impacted by pesticides and/or herbicides. From the 1940s to 1970, dichloro-diphenyl trichloroethane was a common pesticide used on orchards and crops. A persistent pesticide, dichloro-diphenyl trichloroethane and its breakdown products have been detected in soils throughout the State 13 years after its last use.

Soils north of the existing Varner Road alignment are assumed to have the presence of pesticides and/or herbicides in concentrations high enough to be considered a hazardous material. Remediation measures have been included (HAZ-2 and HAZ-4) which should be added to the specifications to manage safe disposal of contaminated soils as well as worker safety during construction.

Hydrocarbon Contaminated Soils

Although no cases of accidental spills were found by the Track Info Environmental FirstSearch Summary Report, there is a high potential for hydrocarbon contamination in the soils along the railroad tracks in the vicinity of the project.

Soils adjacent to the Union Pacific railroad tracks are assumed to have the presence of hydrocarbon contamination and/or heavy metals in concentrations high enough to be considered a hazardous material. Remediation measures have been included (HAZ-3 and HAZ-4) which should be added to the specifications to manage safe disposal of contaminated soils as well as worker safety during construction.

Groundwater Contamination

Historically, groundwater has been encountered in proximity to the project area 155 feet below ground surface. The one LUST case in the vicinity affected soil contamination only and was located well outside the project area. As a result of the identification efforts performed in the Hazardous Waste ISA, groundwater contamination is not considered a potential environmental concern in the project area. Excavation and driven piles associated with bridge construction is not expected to reach depths greater than 100 feet so groundwater is not expected to be encountered.

Electrical Transformers

Pole- and pad-mounted electrical transformers were observed within the project limits; however, all electrical transformers observed were in good condition and did not show signs of leaking. Polychlorinated biphenyl (PCB) was used in electrical transformers manufactured between 1929 and 1977. Southern California Edison, the local electrical service provider, disclosed in a memorandum that the concentration of PCBs in 96 percent of their transformers was less than 50 parts per million (ppm). In the remaining 4 percent of Southern California Edison transformers, the concentration of PCBs is generally between 50 and 100 ppm, well below the EPA's designation of 500 ppm as PCB-containing. Utility companies have replaced most PCB-containing transformers over the past 20 years, and transformers are not considered a potential environmental concern unless they are leaking.

No-Build Alternative

The No-Build Alternative would result in no construction and no potential to encounter unknown hazardous materials.

Avoidance, Minimization, and/or Mitigation Measures

To minimize impacts associated with hazards and hazardous waste, the following measures are recommended.

HW-1: During the preparation of final plans, prior to the start of any demolition or utility relocation, all utility pole-mounted transformers within the project area shall be inspected for leaks. Leaking transformers and the soils surrounding the leak will be considered a potential PCB hazard and shall be handled accordingly.

HW-2: Soils north of the existing Varner Road alignment are assumed to have the presence of pesticides and/or herbicides in concentrations high enough to be considered a hazardous material. The construction contractor will prepare a contaminated soil remediation plan to outline disposal procedures for all contaminated soils affected during

construction. Disposal is expected to involve trucking the soil off-site for disposal at an approved facility, or by burying it under a cap of clean fill within project grading. The contaminated soil remediation plan must be prepared in coordination with Caltrans and the Department of Toxic Substances Control prior to the start of construction activities north of Varner Road. If soil testing is performed prior to the start of construction and the soil north of Varner Road is documented to not be contaminated with pesticides and/or herbicides, this measure may be considered no longer applicable.

HW-3: Soils adjacent to the Union Pacific railroad tracks are assumed to have the presence of hydrocarbon contamination and/or heavy metals in concentrations high enough to be considered a hazardous material. The construction contractor will prepare a contaminated soil remediation plan to outline the disposal procedures for all contaminated soils affected during construction. Disposal is expected to involve trucking the soil off-site for disposal at an approved facility. The contaminated soil remediation plan must be prepared in coordination with Caltrans and the Department of Toxic Substances Control prior to the start of construction adjacent to the Union Pacific railroad tracks. If soil testing is performed prior to the start of construction and the soils adjacent to the railroad tracks are documented to not be contaminated with hydrocarbons and/or heavy metals, this measure may be considered no longer applicable.

HW-4: The construction contractor will prepare a contaminated soil remediation plan (discussed in measures HW-2 and HW-3) which will include a complete discussion of worker protections for any construction activities in and around known contaminated soils in the project area. All applicable best management practices for the specific hazardous materials will be included to provide the safest practical working conditions.

HW-5: If any previously unknown hazardous waste/materials are encountered during construction, the Caltrans Unknown Hazards Procedures would be implemented to minimize potential health and safety concerns.

2.2.6 Air Quality

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 is its companion state law. These laws, and related regulations by the United States Environmental Protection Agency (U.S. EPA) and California Air Resources Board (ARB), 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 National Environmental Policy Act (NEPA). In addition to this environmental analysis, a parallel "Conformity" requirement under the FCAA also applies.

Conformity

The conformity requirement is based on Federal Clean Air Act Section 176(c), which prohibits the U.S. Department of Transportation (USDOT) and other federal agencies from funding, authorizing, or approving plans, programs or projects that do not conform to State Implementation Plan (SIP) for attainting 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 (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 TIP). 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), Federal Highway Administration (FHWA), and Federal Transit Administration (FTA), make 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, scope, and "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.

Conformity analysis at the project-level includes verification that the project is included in the regional conformity analysis and a "hot-spot" analysis if an area is "nonattainment" or "maintenance" for carbon dioxide (CO) and/or particulate matter (PM_{10} or $PM_{2.5}$). A region is "nonattainment" if one or more of the monitoring stations in the region measures a violation of the relevant standard and the U.S. EPA officially designates the area nonattainment. Areas that were previously designated as nonattainment areas but subsequently meet the standard may be officially redesignated to attainment by U.S. EPA and are then called "maintenance" areas. "Hot-spot" analysis is essentially the same, for technical purposes, as CO or particulate matter analysis performed for NEPA purposes. Conformity does include some specific procedural and documentation standards for projects that require a hot-spot analysis. In general, projects must not cause the "hot-spot" related standard to be violated, and must not cause any increase in the

number and severity of violations in nonattainment areas. If a known CO or particulate matter violation is located in the project vicinity, the project must include measures to reduce or eliminate the existing violation(s) as well.

Affected Environment

The following information is a summary of the Air Quality Report (May 2015) and the Air Quality Report Update Memo (June 2017) for the proposed project. Palm Desert is situated in the northern portion of the Coachella Valley and is sheltered by the Little San Bernardino Mountains to the north, the Santa Rosa Mountains to the south, and the San Jacinto Mountains to the west. These mountain ranges direct air circulation and dispersion patterns. Temperature inversions can trap air within the Valley, thereby preventing the vertical dispersal of air pollutants. This geography provides for a warm, dry climate, with 354 days of sunshine and less than six inches of rain annually.

Light winds and atmospheric stability provides frequent opportunities for pollutants to accumulate in the atmosphere. Wind speed and direction also play an important role in the dispersion and transport of air pollutants. Wind at the surface and aloft can disperse pollution by mixing vertically and by transporting it to other locations. The prevailing winds during the spring and summer are from the northwest. These winds, known as “up-valley winds,” originate with coastal breezes that enter the Valley through the Banning Pass, which separates the Coachella Valley from the South Coast Air Basin.

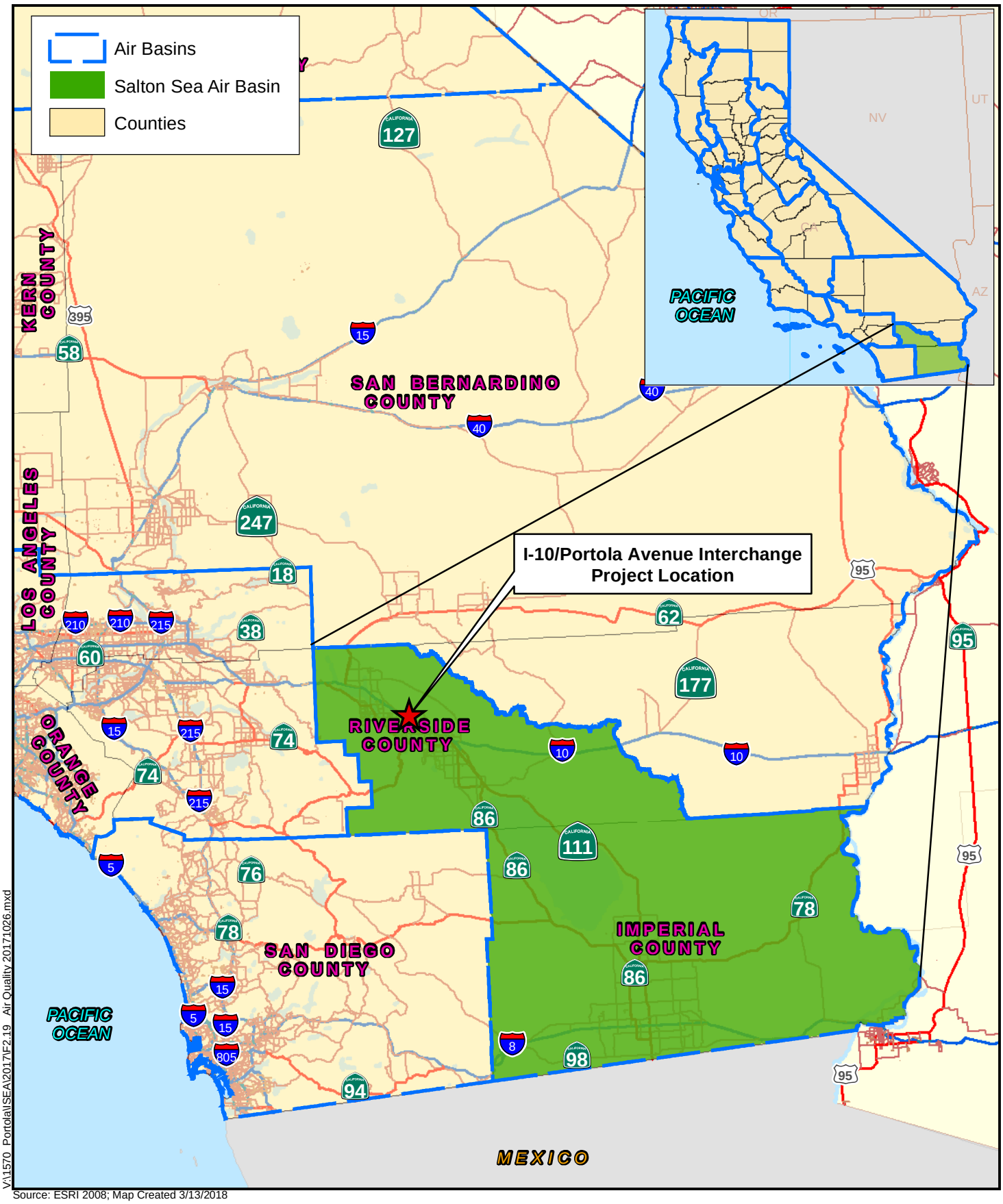
Ozone, classified as a “regional” pollutant, often afflicts areas downwind of the original source of precursor emissions. Ozone can be easily transported by winds from a source area. Ozone precursor transport depends on daily meteorological conditions.

Other primary pollutants, CO, for example, may form high concentrations when wind speed is low. During the winter, Palm Desert experiences cold temperatures and calm conditions that increase the likelihood of a climate conducive to high CO concentrations that are localized.

Surface radiant cooling can also cause temperature inversions. On clear winter nights, the ground loses heat at a rapid rate, causing air in contact with it to cool. Once formed, radiation inversions are similar to subsidence inversions with respect to their effects on pollutant dilution. As a result, conditions in Palm Desert are conducive to the containment of air pollutants.

Motor vehicles account for a substantial portion of regional gaseous and particulate emissions. Large local employers such as industrial plants can also generate substantial regional gaseous and particulate emissions. In addition, construction and agricultural activities can generate temporary gaseous and particulate emissions (dust, ash, smoke, etc.).

The principal factors that affect air quality in and around Palm Desert are: (a) the sink effect, climatic subsidence and temperature inversions and low wind speeds; (b) automobile and truck travel and (c) increases in mobile and stationary pollutants generated by local urban growth. The proposed project is in the Salton Sea Air Basin (SSAB), which is monitored and regulated for air pollutant emissions by the SCAQMD (Figure 2.19). Table 2.15 shows the state and federal standards for criteria pollutants.



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Source: ESRI 2008; Map Created 3/13/2018

0 50 100 Miles

FIGURE 2.19
Air Quality Basins

Table 2.15: Ambient Air Quality Standards

Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (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)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter (PM2.5)[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	12.0 µg/m^3	15 µg/m^3	
Carbon Monoxide (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 (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	—	Ultraviolet Flourescence; 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 Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

See footnotes on next page ...

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (5/4/16)

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. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

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

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB 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 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ 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 parts per billion (ppb). California standards are in units of parts per million (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 one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (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. The ARB 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 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

For more information please call ARB-PIO at (916) 322-2990 **California Air Resources Board (5/4/16)**

The closest monitoring station to the project study area is located at 46990 Jackson Street in Indio, CA. This monitoring station is located approximately 11 miles southeast of the project site. The station monitors particulates and ozone. Monitoring data for the past three years is summarized in Table 2.16. The Palm Springs Fire Station monitoring site, which is located at 590 E. Racquet Club Avenue in Palm Springs, CA, was also used to determine carbon monoxide and nitrogen dioxide levels. This site is located 10.5 miles northwest of the project site.

Table 2.16: Maximum Pollutant Levels in the Project Vicinity

Pollutant	Time Averaging	2014	2015	2016	Standards	
		Max	Max	Max	National	State
Carbon Monoxide	8 hour	N/A	N/A	N/A	9 ppm	9 ppm
	1 hour	N/A	N/A	N/A	35 ppm	20 ppm
Nitrogen dioxide (NO_2)	Annual Arithmetic Mean	N/A	6 ppb	6 ppb	53 ppb	30 ppb
	1 hour	46.3 ppb	41.5 ppb	42.6 ppb	100 ppb	180 ppb
Ozone	1 hour	0.108 ppm	0.102 ppm	0.103 ppm	N/A	0.09 ppm
	8 hour	0.093 ppm	0.092 ppm	0.092 ppm	0.07 ppm	0.07 ppm
Particulate Matter 10 micrometer diameter (PM_{10})	24 Hour	313.8 µg/m^3	199.0 µg/m^3	447.2 µg/m^3	150 µg/m^3	50 µg/m^3
	Annual Arithmetic Mean	25.4 µg/m^3	20.9µg/m^3	23.1µg/m^3	N/A	20 µg/m^3
Particulate Matter (2.5 micrometer diameter) ($PM_{2.5}$)	24 Hour	11.4 µg/m^3	22.7 µg/m^3	14.7 µg/m^3	35 µg/m^3	N/A
	Annual Arithmetic Mean	N/A	N/A	5.4 µg/m^3	12 µg/m^3	12 µg/m^3

Source: California Air Resources Board, 2017

In conjunction with United States environmental law, a nonattainment area is an area considered to have air quality worse than the National Ambient Air Quality Standards as defined in the Clean Air Act Amendments of 1970. The California Air Resources Board has also set attainment standards for the State of California. As shown in Table 2.17, the Salton Sea Air Basin is in nonattainment for 8-hour Ozone and PM_{10} under federal standards; and nonattainment for 1-hour Ozone and PM_{10} for state standards.

Table 2.17: Salton Sea Air Basin Attainment Status

Pollutant	Designation/Classification	
	Federal Standards	State Standards
Ozone	No Designation	Non-attainment
Ozone - 8 Hour	Non-attainment/Severe	No State Standard
PM_{10}	Non-attainment/Serious	Non-attainment
$PM_{2.5}$	Unclassified/Attainment	Attainment
Carbon Monoxide	Unclassified/Attainment	Attainment
Nitrogen Dioxide	Unclassified/Attainment	Attainment
Sulfur Dioxide	Unclassified	Attainment
Sulfates	No Designation	Attainment
Lead	Unclassified/Attainment	Attainment
Hydrogen Sulfide	No Designation	Unclassified
Visibility Reducing Particles	No Designation	Unclassified

Source: California Air Resources Board 2016, EPA 2016

Environmental Consequences

Regional Conformity

The proposed project is listed in the 2016 – 2040 Regional Transportation Plan/Sustainable Communities Strategy financially constrained Regional Transportation Plan which was found to conform by the Southern California Association of Governments (SCAG) on April 7, 2016, and FHWA and FTA made a regional conformity determination finding on June 1, 2016. The project is also included in SCAG's financially constrained 2017 Federal Transportation Improvement Program including Amendments 1-13], on page 2 of 17. SCAG's 2017 Federal Transportation Improvement Program was determined to conform by FHWA and FTA on December 16, 2016. The design concept and scope of the proposed project is consistent with the project description in the 2016 RTP, 2017 FTIP, and will again be consistent with the "open to traffic assumptions" of the SCAG's regional emissions analysis following receipt of the FHWA/FTA determination letter for Amendment #3 to the 2016 RTP/SCS, which will incorporate the Opening Year being 2020 instead of 2019 and also include an update to the project cost estimate. Amendment #3 is expected to be approved in early 2019. Riverside County is in the process of completing the associated coordination requirements.

Project Level Conformity

Alternatives 2 and 3 were analyzed for project-level conformity in the AQR (2015). Localized impacts to CO and PM were addressed following the guidelines in the CO Protocol (Caltrans, University of California, Davis, 2007) and the U.S. EPA PM Hot-Spot Analysis Guidance.

Carbon Monoxide (CO)

The determination of project-level CO impacts was carried out according to the Local Analysis flowchart provided in the CO Protocol. Following the flow-chart, shown as Figure 2.20 in this

report, the project was concluded "Project satisfactory, no further analysis needed." The answers to the flow-chart are included below:

Question 3.1.1: Is the project exempt from all emissions analyses?

> The proposed project description does not fit any of the projects listed in Table 1 of the Protocol and therefore must proceed to question 3.1.2

Question 3.1.2: Is the Project exempt from regional emissions analyses?

> The proposed project description does not fit any of the projects listed in Table 2 of the Protocol and therefore must proceed to question 3.1.3

Question 3.1.3: Is project locally defined as regionally significant?

> Yes. For purposes of this flowchart, the project was considered a regionally significant project. In accordance with the definitions contained in 40 CFR Part 93 (the federal conformity rule), a regionally significant project means a transportation project that is on a facility which serves regional transportation needs and would normally be included in the modeling of a metropolitan area's transportation network, including at a minimum all principal arterial highways and all fixed guideway transit facilities that offer an alternative to regional highway travel. The project is thus considered regionally significant under the definition in 40 CFR Part 93.

Question 3.1.4: Is project in a federal attainment area?

> No. The area designation for $PM_{2.5}$ is attainment for the state standard and unclassified/attainment for the federal standard. The proposed project is located in an area designated nonattainment for the federal and state PM_{10} and O_3 standards. The project area is in attainment for all other NAAQS.

Question 3.1.5: Is there a currently conforming RTP and TIP?

> Yes. There is a currently conforming RTP and FTIP (the Final 2016-2040 RTP/SCS) and the 2017 FTIP.

Question 3.1.6: Is the project included in the regional emissions analysis supporting the currently conforming RTP and TIP?

> Yes. The project as currently defined has been included in the 2016-2040 RTP/SCS (Project ID RIV031209, page 80 of the Project List) which was found to be conforming by the FHWA and FTA on June 1, 2016 and the 2017 FTIP (Project ID RIV031209, page 3 of the Riverside County Project Listing), which was found to be conforming by the FHWA and FTA on December 16, 2016.

Question 3.1.7: Has the project design concept and/or scope changed significantly from that in regional analysis?

> No. The project has not changed in design concept and/or scope from that in the regional analysis.

Section 3.1.9: The next step is to examine the projects local CO impacts as outlined in Section 4.

Question 4.1.1: Is the project located in a CO nonattainment area (Level 1 in Figure 3 of Protocol)?

According to District attainment status shown in Table 2, the proposed project is located in a CO attainment area and therefore must proceed to Section 4.1.2.

Question 4.1.2: Was the project area redesignated as "attainment" after the 1990 Clean Air Act?

The project area was not re-designated as "attainment' after the 1990 Clean Air Act because the SSAB did not exist in 1990. The SSAB was created in 1996. Proceed to Section 4.7 (Level 7 in Figure 3 of Protocol).

Question 4.7.1: Does the project worsen air quality?

Yes, the proposed project has the potential to worsen air quality. The following criteria from the CO Protocol are discussed to help determine whether the project is likely to worsen air quality for the area:

a) Does the project significantly increase the percentage of vehicles operating in cold start mode? Increasing the number of vehicles operating in cold start mode by as little as 2% should be considered potentially significant.

Answer: No, the project does not increase the number of vehicles operating in cold start mode since it accommodates projected future traffic that is anticipated with or without the project. The project also does not introduce new residential or commercial land uses

b) Does the project significantly increase traffic volumes? Increases in traffic volume in excess of 5% should be considered potentially significant. Increasing the traffic volume by less than 5% may still be potentially significant if there is also a reduction in average speeds.

Answer: Yes, the project does increase traffic volumes through the project site because the Portola Avenue overcrossing would be a new feature.

c) Does the project worsen traffic flow? For uninterrupted roadway segments, a reduction in average speeds (within a range of 3 to 50 mph) should be regarded as worsening traffic flow. For intersection segments, a reduction in average speed or an increase in average delay should be considered as worsening traffic flow.

Answer: No, the project does not worsen traffic flow. As shown in Table 2.12 of this Environmental Document, LOS and delay in seconds would improve at 11 of the 12 existing intersections that were studied; therefore an overall improvement in traffic flow would result with either of the build alternatives. At Portola Avenue and Dinah Shore Drive, the results are split. The PM Peak hour is improved under both Build Alternatives, whereas for the AM Peak hour both Build Alternatives would result in a slightly longer delay than would be the case under the No Build Alternative.

As shown in Table 2.13, LOS and delay in seconds would improve at 9 of the 11 existing intersections along Monterey Avenue and Cook Street near I-10, therefore an overall improvement in traffic flow would result with either Alternative 2 or 3. The intersections surrounding the proposed project along Portola Avenue would operate at acceptable levels of service "D" or better.

Question 4.7.2: Is the project suspected of resulting in higher CO concentrations than those existing within the region at the time of attainment demonstration?

No, the project is not suspected of resulting in higher CO concentrations than those existing within the region at the time of attainment demonstration. For comparison purposes, data from the air quality monitoring station at 924 N. Garey Avenue, Pomona, CA was used since it is within 0.5 mi of an interchange (the I-10/Garey Avenue Interchange) and is within a developed area. The I-10/Garey Avenue Interchange experiences ADT ranging from 236,000 to 246,000 (Caltrans 2010), which is a higher volume than the design year for the I-10/Portola Avenue New Interchange. In the I-10/Garey Avenue Interchange area, the CO arithmetic mean value and 1-hour and 8-hour maximum events are well below the NAAQS and CAAQS thresholds (see Table 2.18). Additionally, the local road ADT is similar to that of the proposed project (Garey Avenue is approximately 25,000 ADT; Portola Avenue at design year would be approximately 28,700). In the Pomona area, the daily average wind speed is 6.0 mph and during Fall and Winter, winds range between 4.9 to 5.8 mph (Western Regional Climate Center [WRCC] 2011a, Climate Summary for Station: Ontario International Airport [KONT], CA). In the proposed project area, daily average wind speed is 6.6 mph, and the daily average wind speed during the Fall and Winter range between 5.0 and 6.7 mph (WRCC 2011b, Climate Summary for Station: Palm Springs International Airport [KPSP], CA). Therefore, the meteorological conditions at the proposed project are slightly more favorable. Based on this comparison, the project is not suspected of resulting in higher CO concentrations than those existing at the time of attainment demonstration. The project would accommodate anticipated traffic volumes in the vicinity and relieve congestion at the adjacent Monterey Avenue and Cook Street Interchanges. Based on these answers, the flowchart concludes with "Project satisfactory, no further analysis needed."

Table 2.18: CO Data at Another Interchange (for comparison)

	ADT	CO Max 2009	CO Max 2009	Arithmetic Mean Value: 2009	Arithmetic Mean Value: 2010
I-10/Garey Avenue Interchange, Pomona, CA	236,000 to 246,000 on I-10; 25,000 on Garey Avenue	1-hour: 2.6 ppm 8-hour: 1.9 ppm	1-hour: 2.7 ppm 8-hour: 1.8 ppm	0.51 ppm 0.53 ppm	0.46 ppm 0.49 ppm
Proposed I-10/Portola Avenue New Interchange	171,675 on mainline and 220,730 at mainline near Cook Street; Portola Avenue: 28,700 in 2040				

Note: As lead agency under CEQA, Caltrans has not adopted or endorsed the above thresholds for the evaluation of operation emissions.
Source: Air Quality Report 2014, Air Quality Report Update Memorandum 2017.

Figure 2.20: CO Protocol Flowchart

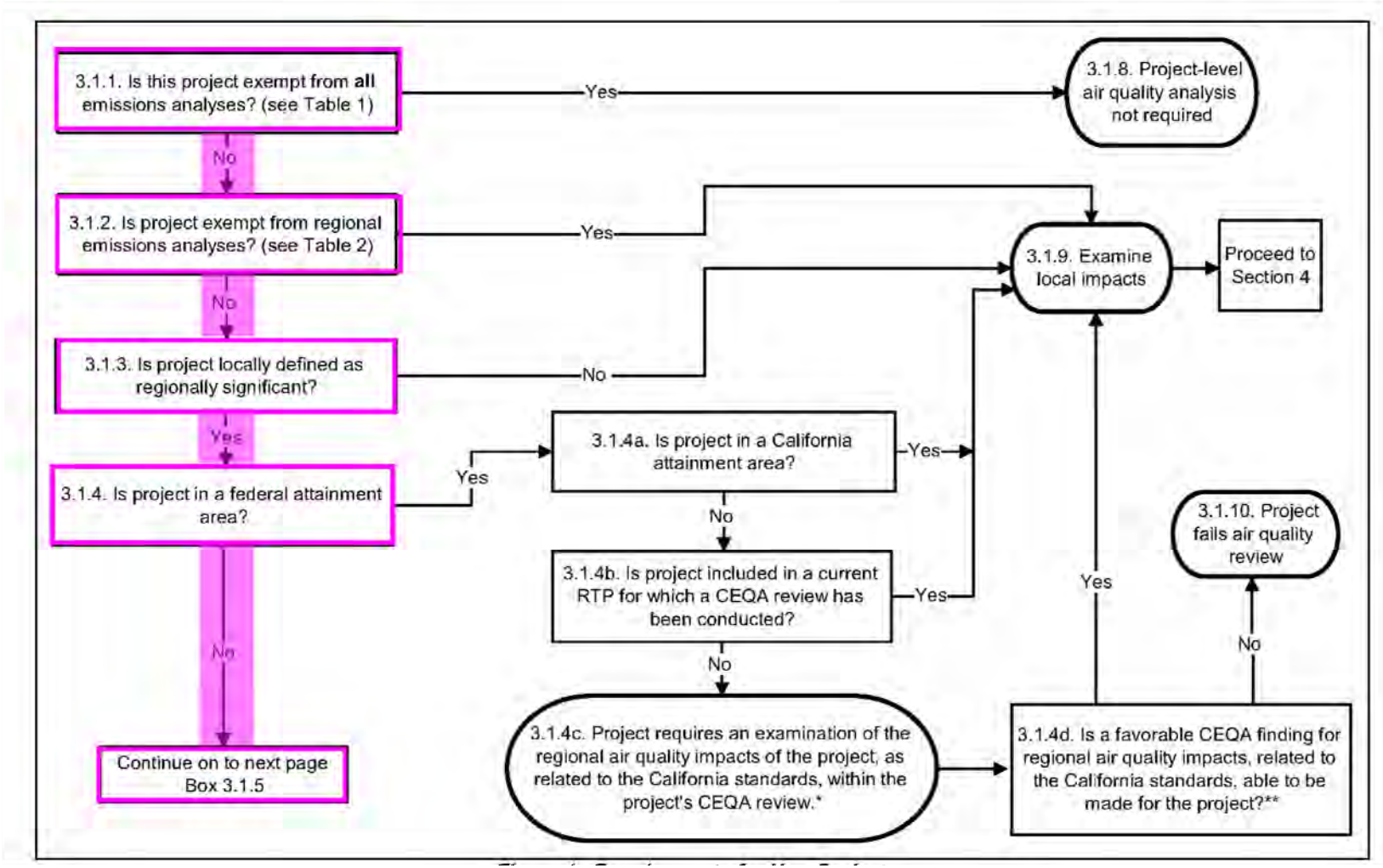


Figure 2.20, CO Protocol Flowchart (continued)

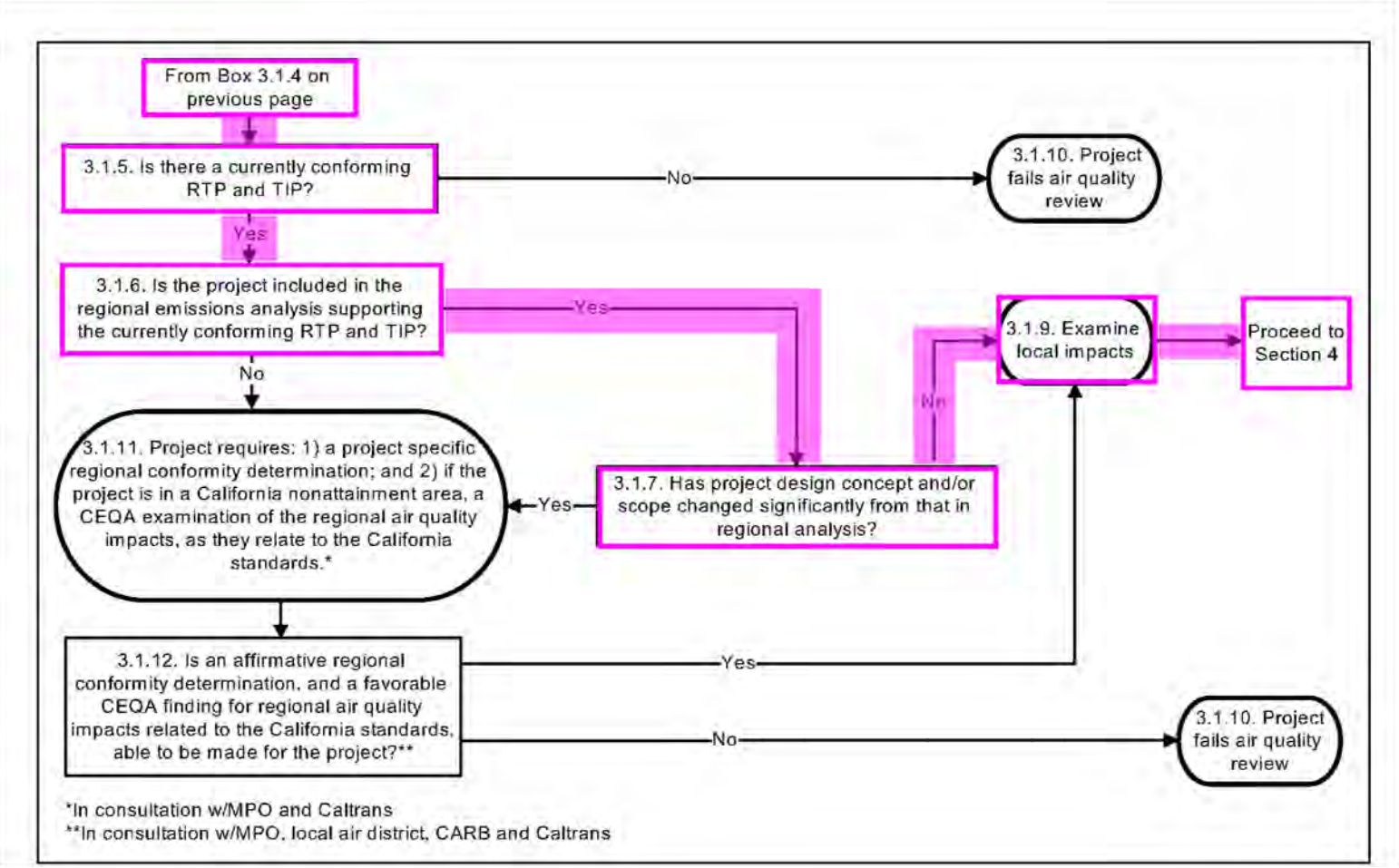


Figure 2.20, CO Protocol Flowchart (continued)

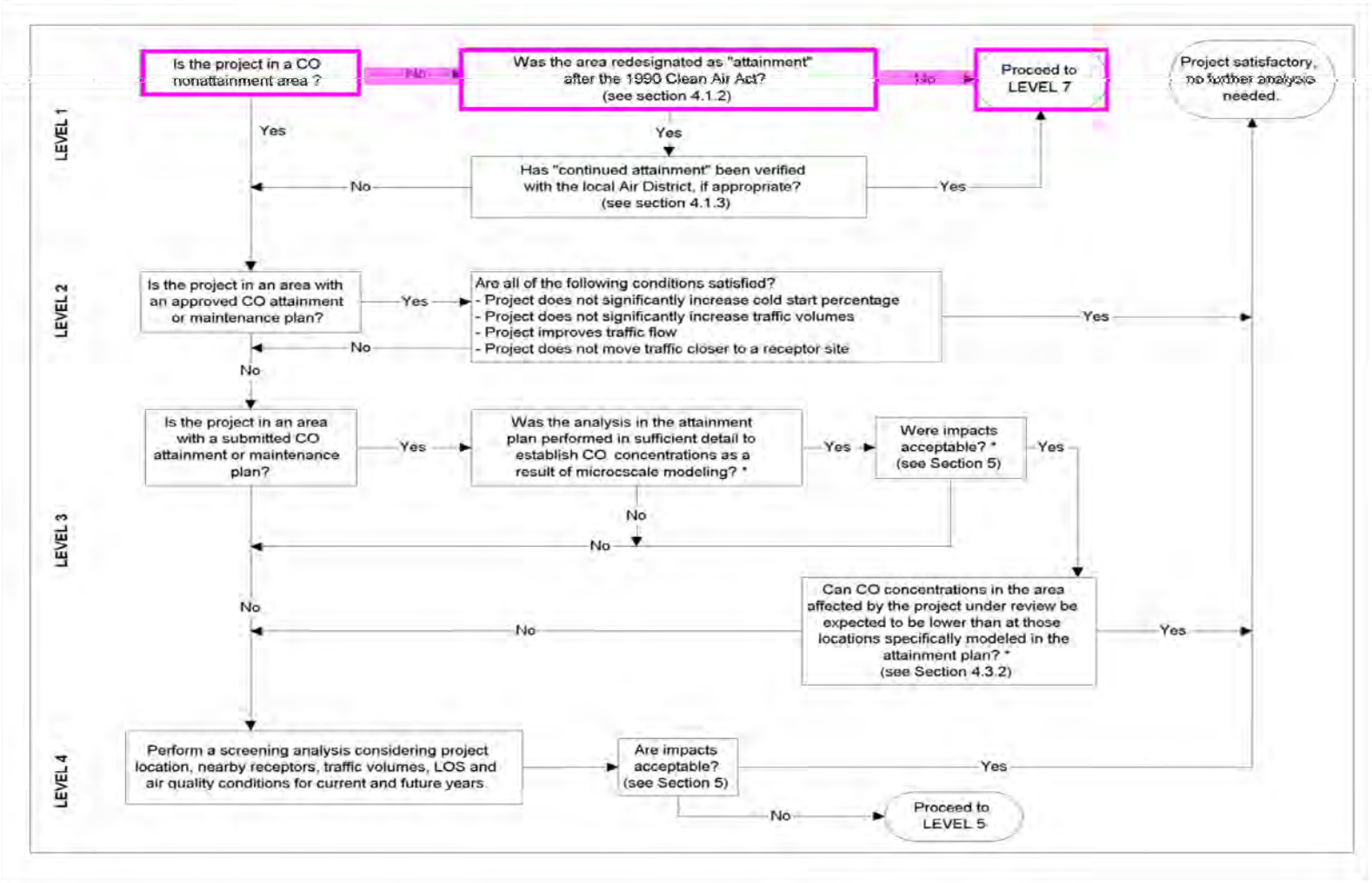
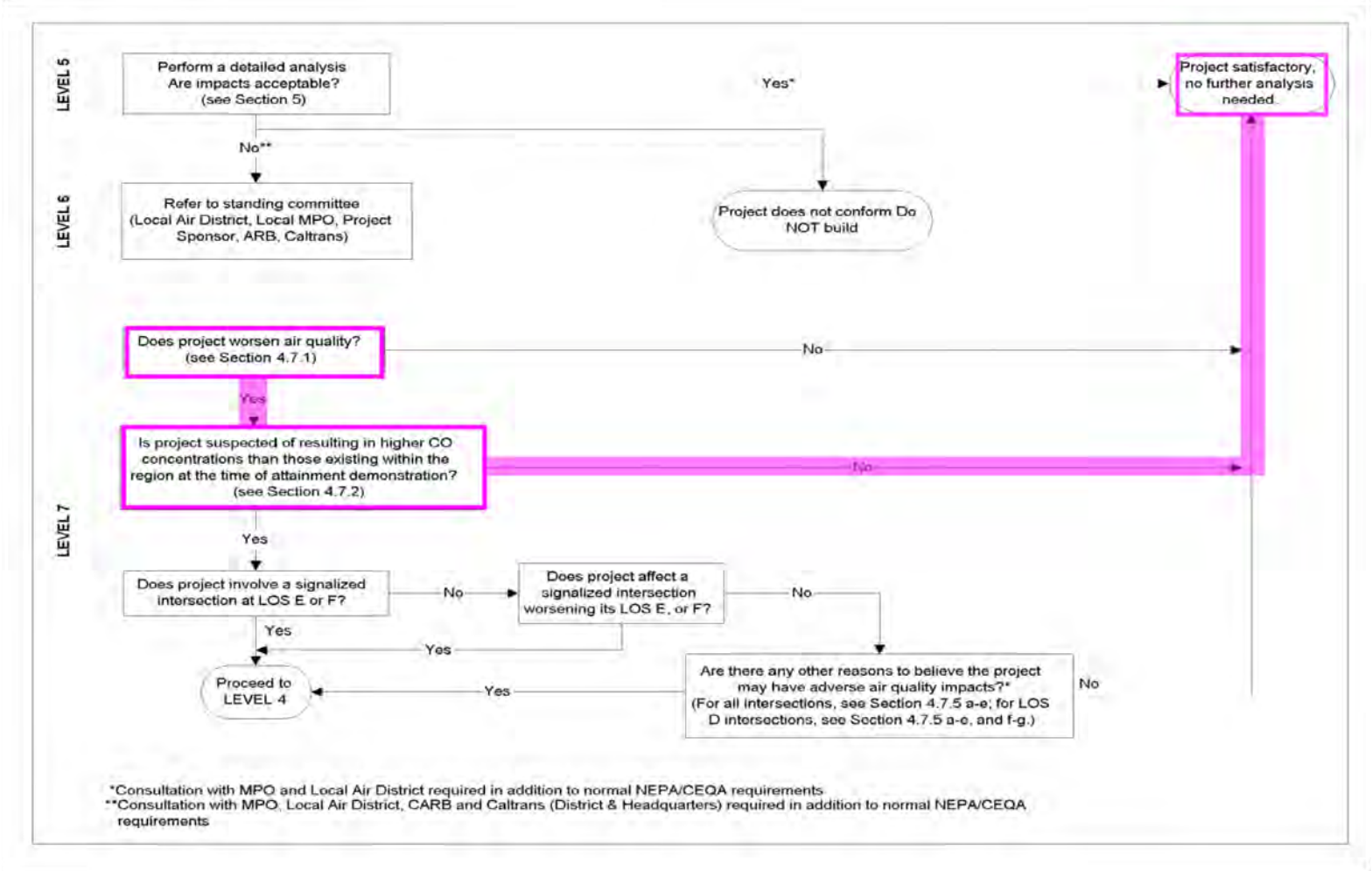


Figure 2.20, CO Protocol Flowchart (continued)



Source: Caltrans, Transportation Project-Level Carbon Monoxide Protocol, 1997

An Air Quality Conformity Analysis was prepared and submitted to FHWA on February 15, 2018 to request a project-level conformity determination. Following their review, FHWA provided their air quality conformity analysis determination letter on March 8, 2018. Appendix G provides a copy of FHWA's letter and the conformity determination for the I-10/Portola Avenue New Interchange Project.

Particulate Matter (PM)

The proposed project is located within the Salton Sea Air Basin. As indicated in Table 2.15, for Particulate Matter with a diameter of 10 microns, typically associated with blowing sand or dust, the federal designation/classification is "Non-attainment/Serious," and the state standard designation/classification is "Non-attainment." For Particulate Matter with a diameter of 2.5 microns, typically associated with diesel exhaust, the federal designation/classification is "Unclassified/Attainment," and the state standard designation/classification is "Attainment."

The required interagency consultation with SCAG's Transportation Conformity Working Group (TCWG) initially occurred in April of 2011. At their April 26, 2011, TCWG issued a determination that the project was "Not a POAQC – Hot Spot analysis not required." A copy of this determination is included in Chapter 3, in the *Agency Coordination Documentation* section.

In consideration of the time involved with completion of analyses necessary for approval of the Initial Study with Proposed Negative Declaration/Environmental Assessment, the project was submitted to TCWG, a second time, at TCWG's January 27, 2015 meeting. At this meeting TCWG again issued a determination that the project was "Not a POAQC – Hot Spot analysis not required." and the project is not of air quality concern for PM. A copy of this determination is included in Chapter 3, in the *Agency Coordination Documentation* section.

Lead (Pb)

Gasoline-powered automobile engines are a major source of airborne lead, although the use of leaded fuel is being reduced. Lead can cause blood effects such as anemia and the inhibition of enzymes involved in blood synthesis. Lead may also affect the central nervous and reproductive systems. Ambient lead levels have dropped dramatically as the percentage of motor vehicles using unleaded gasoline continues to increase. The standards for lead are being met in the Salton Sea Air Basin (SSAB) and it is not expected that the standards will be exceeded in the future.

Naturally Occurring Asbestos

Based on review of the map, *A General Location Guide for Ultra Mafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos* (California Department of Conservation, Division of Mines and Geology, 2000), Naturally Occurring Asbestos is not mapped in Riverside County. Naturally Occurring Asbestos is therefore unlikely to occur at the project site.

Analyzing Mobile Source Air Toxics (MSAT) in the NEPA Process for Highways/New Interchange Connecting an Existing Roadway with a New Roadway

The following discussion is based on the FHWA Memorandum, Subject: INFORMATION: Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents, issued October 18, 2016. This guidance is interim because MSAT science is rapidly evolving. As the science progresses, the Federal Highway Administration updates the guidance.

Controlling air toxic emissions became a national priority with the passage of the Clean Air Act Amendments (CAAA) of 1990, whereby Congress mandated that the EPA regulate 188 air toxics,

also known as hazardous air pollutants. The EPA has assessed this expansive list and identified a group of 93 compounds emitted from mobile sources that are listed in their Integrated Risk Information System (IRIS). In addition, the EPA identified seven compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers from their 1999 National Air Toxics Assessment. These priority MSAT pollutants are acrolein, benzene, 1,3-butidiene, diesel particulate matter plus diesel exhaust organic gases (diesel PM), formaldehyde, naphthalene, and polycyclic organic matter.

Motor Vehicle Emissions Simulator (MOVES)

According to EPA, MOVES2014 is a major revision to MOVES2010 and improves upon it in many respects. MOVES2014 includes new data, new emissions standards, and new functional improvements and features. It incorporates substantial new data for emissions, fleet, and activity developed since the release of MOVES2010. These new emissions data are for light- and heavy-duty vehicles, exhaust and evaporative emissions, and fuel effects. MOVES2014 also adds updated vehicle sales, population, age distribution, and vehicle miles travelled (VMT) data. MOVES2014 incorporates the effects of three new Federal emissions standards rules not included in MOVES2010. These new standards are all expected to impact MSAT emissions and include Tier 3 emissions and fuel standards starting in 2017 (79 FR 60344), heavy-duty greenhouse gas regulations that phase in during model years 2014-2018 (79 FR 60344), and the second phase of light duty greenhouse gas regulations that phase in during model years 2017-2025 (79 FR 60344). Since the release of MOVES2014, EPA has released MOVES2014a. In the November 2015 MOVES2014a Questions and Answers Guide, EPA states that for on-road emissions, MOVES2014a adds new options requested by users for the input of local vehicle miles traveled (VMT), includes minor updates to the default fuel tables, and corrects an error in MOVES2014 brake wear emissions. The change in brake wear emissions results in small decreases in PM emissions, while emissions for other criteria pollutants remain essentially the same as MOVES2014.

Based on Federal Highway Administration analysis using the EPA's MOVES2014a model, even if VMT increases by 45 percent from 2010 to 2050 as forecast, a combined reduction of 91 percent in the total annual emissions for the priority MSAT is projected for the same time period.

However, California does not use the EPA model for emissions analysis. EMFAC, not MOVES, is to be used for emission analysis in California. For air quality conformity analysis, projects are to use EMFAC 2014 as documented in the latest EPA quantitative hot-spot analysis guidance. For environmental analysis other than conformity, the California Air Resources Board's 2011 tools or CT-EMFAC 2014 is to be used.

For either Alternative 2 or 3, the amount of Mobile Source Air Toxics (MSAT) emitted would be proportional to the VMT, assuming that other variables such as fleet mix are the same for each alternative. Because the VMT estimated for the No-Build Alternative is higher than for Alternatives 2 or 3, higher levels of MSAT are not expected from Alternatives 2 or 3 compared to the No-Build. In addition, because the estimated VMT under Alternatives 2 or 3 are nearly the same, it is expected there would be no appreciable difference in overall MSAT emissions among the various alternatives. Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce annual MSAT emissions by over 80 percent from 2010 to 2050. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in virtually all locations.

Under each alternative there may be localized areas where VMT would increase, and other areas where VMT would decrease. Therefore, it is possible that localized increases and decreases in MSAT emissions may occur. The localized increases in MSAT emissions would likely be most pronounced along the new roadway sections that would be built at the Portola Overcrossing, the realigned portion of Varner Road, and the portion of I-10 between the Monterey Avenue Interchange and the Cook Street Interchange under both build alternatives. However, even if these increases do occur, they too will be substantially reduced in the future due to implementation of EPA's vehicle and fuel regulations.

Incomplete or Unavailable Information for Project-Specific MSAT Health Impacts Analysis

In the Federal Highway Administration's view, information is incomplete or unavailable to credibly predict the project-specific health impacts due to changes in MSAT emissions associated with a proposed set of highway alternatives. The outcome of such an assessment, adverse or not, would be influenced more by the uncertainty introduced into the process through assumption and speculation rather than any genuine insight into the actual health impacts directly attributable to MSAT exposure associated with a proposed action.

The EPA is responsible for protecting the public health and welfare from any known or anticipated effect of an air pollutant. It is the lead authority for administering the Clean Air Act and its amendments and has specific statutory obligations with respect to hazardous air pollutants and MSAT. The EPA is in the continual process of assessing human health effects, exposures, and risks posed by air pollutants. It maintains the IRIS, which is "a compilation of electronic reports on specific substances found in the environment and their potential to cause human health effects" (EPA, http://www.epa.gov/iris/). Each report contains assessments of non-cancerous and cancerous effects for individual compounds and quantitative estimates of risk levels from lifetime oral and inhalation exposures with uncertainty spanning perhaps an order of magnitude.

Other organizations are also active in the research and analyses of the human health effects of MSAT, including the Health Effects Institute. Among the adverse health effects linked to MSAT compounds at high exposures are; cancer in humans in occupational settings; cancer in animals; and irritation to the respiratory tract, including the exacerbation of asthma. Less obvious is the adverse human health effects of MSAT compounds at current environmental concentrations or in the future as vehicle emissions substantially decrease.

The methodologies for forecasting health impacts include emissions modeling; dispersion modeling; exposure modeling; and then final determination of health impacts—each step in the process building on the model predictions obtained in the previous step. All are encumbered by technical shortcomings or uncertain science that prevents a more complete differentiation of the MSAT health impacts among a set of project alternatives. These difficulties are magnified for lifetime (i.e., 70-year) assessments, particularly because unsupportable assumptions would have to be made regarding changes in travel patterns and vehicle technology (which affects emissions rates) over that time frame, since such information is unavailable.

It is particularly difficult to reliably forecast 70-year lifetime MSAT concentrations and exposure near roadways; to determine the portion of time that people are actually exposed at a specific location; and to establish the extent attributable to a proposed action, especially given that some of the information needed is unavailable.

There are considerable uncertainties associated with the existing estimates of toxicity of the various MSAT, because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population. As a result, there is no national consensus on air dose-

response values assumed to protect the public health and welfare for MSAT compounds, and in particular for diesel particulate matter. The EPA and the Health Effects Institute has not established a basis for quantitative risk assessment of diesel particulate matter in ambient settings.

There is also the lack of a national consensus on an acceptable level of risk. The current context is the process used by the EPA as provided by the Clean Air Act to determine whether more stringent controls are required in order to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect for industrial sources subject to the maximum achievable control technology standards, such as benzene emissions from refineries. The decision framework is a two-step process. The first step requires EPA to determine an "acceptable" level of risk due to emissions from a source, which is generally no greater than approximately 100 in a million. Additional factors are considered in the second step, the goal of which is to maximize the number of people with risks less than 1 in a million due to emissions from a source. The results of this statutory two-step process do not guarantee that cancer risks from exposure to air toxics are less than 1 in a million; in some cases, the residual risk determination could result in maximum individual cancer risks that are as high as approximately 100 in a million. In a June 2008 decision, the U.S. Court of Appeals for the District of Columbia Circuit upheld the EPA's approach to addressing risk in its two-step decision framework. Information is incomplete or unavailable to establish that even the largest of highway projects would result in levels of risk greater than deemed acceptable.

Because of the limitations in the methodologies for forecasting health impacts described, any predicted difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with predicting the impacts. Consequently, the results of such assessments would not be useful to decision makers, who would need to weigh this information against project benefits, such as reducing traffic congestion, accident rates, and fatalities plus improved access for emergency response, that are better suited for quantitative analysis.

MSAT Conclusion

What we know about MSAT is still evolving. As the science progresses FHWA will continue to revise and update this guidance. FHWA is working with Stakeholders, EPA and others to better understand the strengths and weaknesses of developing analysis tools and the applicability on the project level decision documentation process.

Construction Conformity

The project is anticipated to be in construction for less than two years. Construction activities will not last for more than 5 years at one general location, so construction-related emissions do not need to be included in regional and project-level conformity analysis (40 CFR 93.123(c)(5)). Adverse effects of construction activities cause increased dust-fall and locally elevated levels of total suspended particulate. Dust-fall can be a nuisance to neighboring properties or previously completed developments surrounding or within the project area and may require frequent washing during the construction period. Further, asphalt-paving materials used during construction will present temporary, minor sources of hydrocarbons that are precursors of ozone.

The project’s construction is anticipated to take 24 months. The project’s construction emissions were estimated using the Roadway Construction Emissions Model by the Sacramento Metropolitan Air Quality Management Districts (SMAQMD, 2016). The SCAQMD significance thresholds referenced are provided for informational purposes only. As lead agency under CEQA, Caltrans has not adopted or endorsed such thresholds for the evaluation of construction

emissions. Nonetheless, as summarized in Table 2.19, all project construction emissions are expected to be below the identified SCAQMD threshold. As summarized in Table 2.19, construction activities from the project would not exceed emission thresholds established by the SCAQMD (2016).

Table 2.19: Estimated Construction Emissions and Local Thresholds

	Project Construction Emissions	SCAQMD Air Quality Significance Thresholds
NO_X	97.7 lbs/day	100 lbs/day
VOC	9.0 lbs/day	75 lbs/day
PM_{10}	104.7 lbs/day	150 lbs/day
$PM_{2.5}$	25.1 .bs/day	55 lbs/day
SO_X	0.12 lbs/day	150 lbs/day
CO	64.0 lbs/day	550 lbs/day
Lead	N/A	3 lbs/day

Source: Modeling using the *Roadway Construction Emissions Model* 8.1.0 (Sacramento Metropolitan Air Quality Management District 2017).

Measures AQ-1 through AQ-9 have been included in the project to further minimize air quality impacts during construction and have been taken form the Coachella Valley SIP Emission Control Measures as locally adopted Best Management Practices.

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 a separate California Environmental Quality Act (CEQA) discussion at the end of this chapter. The CEQA analysis may be used to inform the National Environmental Policy Act (NEPA) determination for the project.

Avoidance, Minimization, and/or Mitigation Measures

The following measures will avoid or minimize potential impacts to air quality during construction:

AQ-1: All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, SCAQMD approved chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover. Use of water for control of fugitive dust shall be consistent with current Caltrans drought policy.

AQ-2: All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.

AQ-3: All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking. Use of water for control of fugitive dust shall be consistent with current Caltrans drought policy.

AQ-4: When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained. Use of water for control of fugitive dust shall be consistent with current Caltrans drought policy.

AQ-5: All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden. Use of water for control of fugitive dust shall be consistent with current Caltrans drought policy.

AQ-6: Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant. Use of water for control of fugitive dust shall be consistent with current Caltrans drought policy.

AQ-7: Within urban areas, track out shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday.

AQ-8: Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.

AQ-9: All applicable Best Available Control Measures from Rule 403 will be implemented.

AQ-10: Soil binder will be spread on all project construction parking areas.

2.2.7 Noise

Regulatory Setting

The National Environmental Policy Act (NEPA) of 1969 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 would 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 CEQA noise analysis is included at the end of this section.

National Environmental Policy Act and 23 CFR 772

For highway transportation projects with FHWA (and Caltrans, as assigned) involvement, the Federal-Aid Highway Act of 1970 and the associated implementing regulations (23 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). The following table lists the NAC for use in the NEPA 23 CFR 772 analysis.

Table 2.20: Noise Abatement Criteria

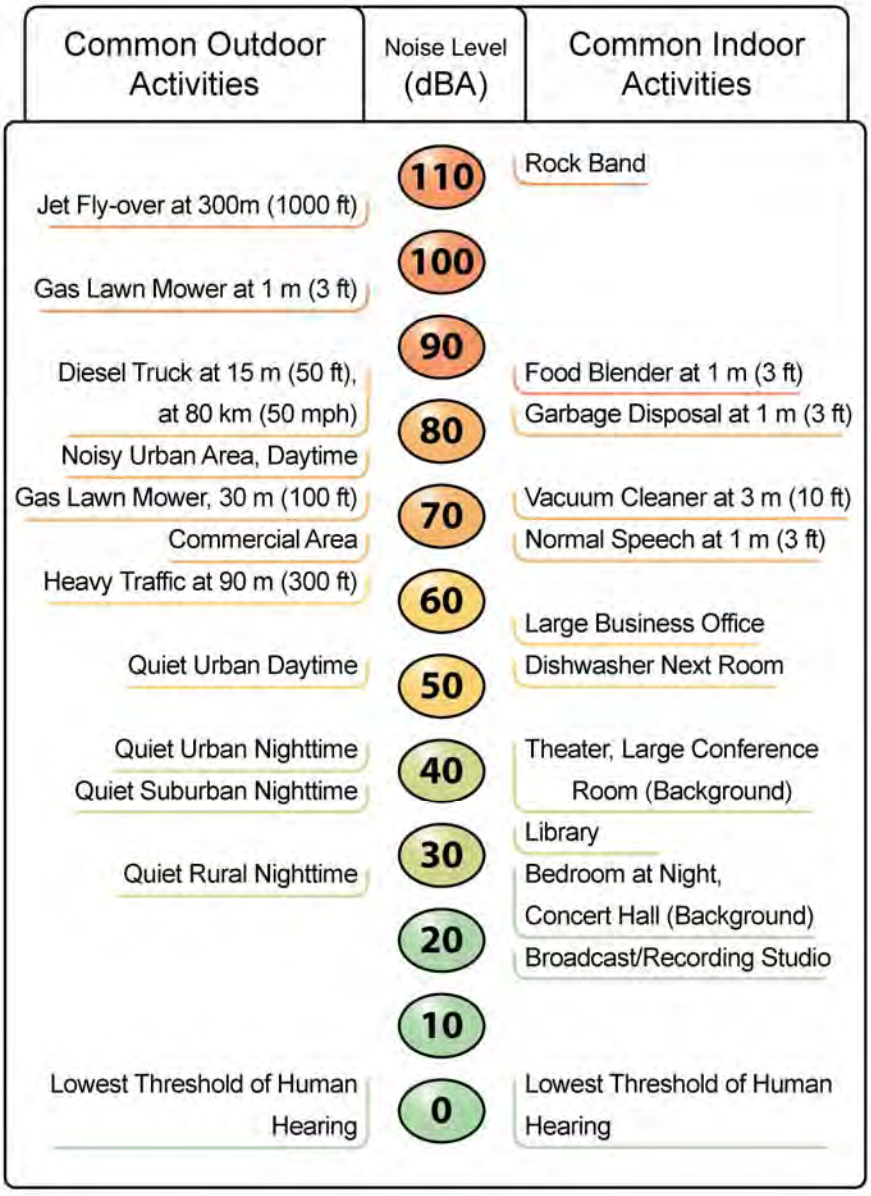
Activity Category	NAC, Hourly A-Weighted Noise Level, Leq(h)	Description of activity category
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to 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.
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.

Source: Noise Protocol 2011

Figure 2.21 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.

Figure 2.21: Noise Levels of Common Activities



Source: Noise Protocol 2011

According to Caltrans' Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, August 2011 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.

Caltrans' *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 in the future noise level must be achieved for an abatement measure to be considered feasible. Other considerations include topography, access requirements for driveways, presence of local streets, underground utilities, other noise sources, and safety considerations. The reasonableness determination is basically a cost-benefit analysis. Factors used in determining whether a proposed noise abatement measure is reasonable include: the noise reduction design goal, the cost of noise abatement, the viewpoint of benefited receptors (including property owners and residents of the benefited receptors).

Affected Environment

The following sections are a summary from the June 2014 Noise Study Report the January 2015 Noise Abatement Decision Report, and the August 2017 Noise Study Report Update Memorandum that were prepared for the proposed project. The August 2017 Noise Study Report Update Memorandum was an addendum to the 2014 Noise Study Report, for purposes of addressing modifications to the preliminary design as well as recognizing an update from Riverside County that existing development applications had expired and that those developments were no longer considered active. The August 2017 Noise Study Report Update Memorandum concluded that no new noise study would be required.

The terrain of the project study area is generally flat relative to I-10. Over the span of the approximately 1.8 mile project corridor, I-10 decreases in elevation from the northwest to southeast by approximately 35 feet, for an average slope of -0.4%. Land uses in the project vicinity include single-family residences, undeveloped land, recreational uses (golf courses), and office/commercial uses. Two sets of UPRR tracks run parallel to I-10 and are approximately 100 feet south of the freeway.

An investigation of the proposed project area was performed to identify land uses that could be subject to traffic and construction noise impacts from the proposed project. Sensitive receivers were identified in areas where frequent human use would occur such as single-family residences, active sports areas, and outdoor use areas of commercial land uses. Existing residences, partially developed residential communities, and undeveloped but planned residential development that have approved tentative tract maps are located north of I-10 along Varner Road. Commercial uses with potential for outdoor components are found south of I-10 along Dinah Shore Drive. There is a residential development at the southwest quadrant of the intersection of Dinah Shore Drive and Portola Avenue. Traffic on I-10 is the dominant source of noise in the project area, but the UPRR tracks also result in short but intensive noise when a train is moving through the project area.

A field investigation was conducted to identify land uses that could be subject to traffic and construction noise impacts from the proposed project. Single-family residences were identified as Activity Category B land uses in the project area. Golf course uses on the north side of I-10 were identified as Activity Category C, and business located along the south side of I-10 (mini-storage facilities and office-park uses) were identified as Activity Category E. Undeveloped lands in the project study area were identified as Activity Category G.

As required by 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 focused on locations with defined outdoor activity areas, such as residential backyards and golf courses. The generalized land use data and location of particular sensitive receivers were the basis for the selection of the noise monitoring and analysis sites.

In conjunction with preparation of the 2014 Noise Study Report, a total of 53 receiver locations, were modeled to represent existing and planned land uses in the project vicinity which are itemized in Table 2.22, below. As also indicated in Table 2.21, noise monitoring was conducted at 13 of the 53 receiver locations. Figure 2.22, below, shows the locations of all evaluated noise barriers, also referred to as sound walls.

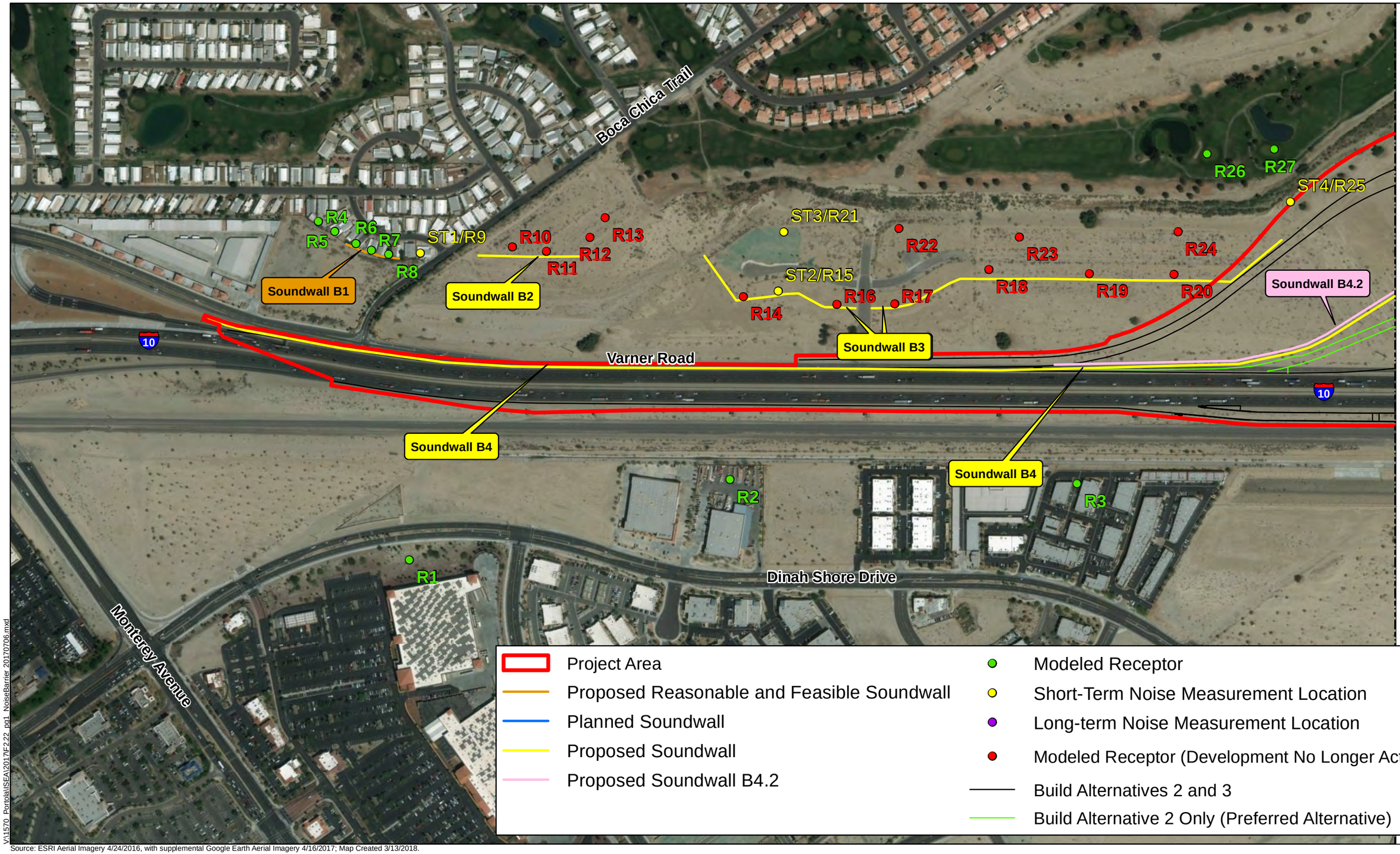
As stated above, the August 2017 Noise Study Report Update Memorandum recognized that specific developments, identified by Riverside County had expired. Figure 2.22 and Table 2.21 and Table 2.22 include clarifications relative to the specific sensitive receptors associated with the expired developments. The sensitive receptors related to the developments that have expired are R10 through R14, R16 through R20, and R22 through R24. These receptors are shown in red on Figure 2.22. In Table 2.21 these receptors are identified by the following symbol: ~~Ŧ~~.

ENVIRONMENTAL CONSEQUENCES

Under 23 CFR 772.7, projects are categorized as Type I, Type II, or Type III projects. As detailed in 23 CFR 772, the kinds of projects specifically defined as Type I projects include:

> "2. The physical alteration of an existing highway where there is either:
> A. Substantial horizontal alteration. A project that halves the distance between the traffic noise source and the closest receiver between the existing condition to the future build condition, or
> B. Substantial vertical alteration. A project that removes shielding thereby exposing the line-of-sight between the receiver 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 receiver; or
> 4. The addition of an auxiliary lane, except for when the auxiliary lane is a turn lane;"

If a project is determined to be a Type I project under this definition, the entire project area as defined in the environmental document is a Type I project. This project proposes to add interchange lanes and ramps as well as auxiliary lanes; therefore it is considered a Type I project. Title 23, Part 772 of the Code of Federal Regulations provides procedures for preparing operational and construction noise studies and evaluating noise abatement considered for federal and federal-aid highway projects.



Match Line: See Page 2

V:\1570_Portola\SEA\2017\F2.22_g01_NoiseBarrier_20170706.mxd

Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

0 200 400 600 800 1,000 Feet

FIGURE 2.22
(sheet 1 of 2)
Proposed Soundwalls

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Match Line: See Page 1

R28
R29
R31
R33
R30
R32
R34
R35
R36
R37
R38
R39
R27-1
R27-2
R44
R45
R51

Proposed Varner Road Realignment
Soundwall B4.2
Soundwall B4
Soundwall B5
Soundwall B6

ST6/R41
ST8/R43
ST5/R40
ST7/R42
ST9/R46
LT-1
ST13/R47
ST11/R49
ST10/R48
ST12/R50

Varner Road
Portola Avenue
Cook Street
10

Project Area
Proposed Reasonable and Feasible Soundwall
Planned Soundwall
Proposed Soundwall
Proposed Soundwall B4.2
Modeled Receptor
Short-term Noise Measurement Location
Long-term Noise Measurement Location
Modeled Receptor (Development No Longer Active)
Build Alternatives 2 and 3
Build Alternative 2 Only (Preferred Alternative)

V:\11570_Portola\SEA\2017\F2.22_pg2_NoiseBarrier_20170706.mxd

Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

N

0 200 400 600 800 1,000 Feet

FIGURE 2.22
(sheet 2 of 2)
Proposed Soundwalls

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Table 2.21: Noise Levels for Existing, Future No-Build, and Future Build

Receptor #	Address	Barrier I.D.	Existing (2015) Noise Level (dBA)	Design Year (2040) Noise Level without Project (No-Build) (dBA)	Design Year (2040) Noise Level with Project (Build) (dBA)	Noise Impact Requiring Abatement Consideration	Predicted Noise Level with Abatement (dBA)						Feasible	Noise Abatement				
							6-foot Wall	8-foot Wall	10-foot Wall	12-foot Wall	14-foot Wall	16-foot Wall		Reasonable	Barrier Height	Total Reasonable Allowable	Construction Cost	Soundwall required?
R1	34200 Monterey Avenue	--	61	62	61	No	--	--	--	--	--	--	--	--	--	--	--	--
R2	73600 Dinah Shore Drive	--	**66**	**66**	**66**	No	--	--	--	--	--	--	--	--	--	--	--	--
R3	73806 Dinah Shore Drive	--	64	65	65	No	--	--	--	--	--	--	--	--	--	--	--	--
R4	33761 Westchester Drive	--	64	65	64	No	--	--	--	--	--	--	--	--	--	--	--	--
R5	33567 Sundance Trail	--	65	65	65	No	--	--	--	--	--	--	--	--	--	--	--	--
R6	33597 Sundance Trail	B1	65	**66**	**66**	A/E	62	60	59	58	57	56	Yes (8'-16')	Yes (6'-16')	10'	$320,000	$94,596	Yes
R7	33601 Sundance Trail		**66**	**67**	**66**	A/E	61	59	57	56	55	54	Yes (6'-16')	Yes (6'-16')	10'	$320,000	$94,596	Yes
R8	33617 Sundance Trail		**66**	**67**	**66**	A/E	61	58	56	55	54	54	Yes (6'-16')	Yes (6'-16')	10'	$320,000	$94,596	Yes
ST1/R9	33671 Sundance Trail	--	64	65	65	No	--	--	--	--	--	--	--	--	--	--	--	--
R10[F]	UND – TTM #29151	B2	**66**	**66**	**66**	A/E	62	60	59	58	58	57	Yes (8'-16')	Yes (8')	8'	$128,000	$137,638	Yes*
R11[F]	UND – TTM #29151		**66**	**66**	**66**	A/E	61	59	58	57	56	55	Yes (6'-16')	Yes (8')	8'	$128,000	$137,638	Yes*
R12[F]	UND – TTM #29151	B2	65	65	65	No	65	64	64	64	64	64	No	--	--	--	--	--
R13[F]	UND – TTM #29151		64	64	64	No	64	64	64	64	64	64	No	--	--	--	--	--
R14[F]	UND – TTM #29151	B3	**69**	**69**	**69**	A/E	64	62	60	58	57	56	Yes (6'-16')	Yes (6'-16')	10'	$2,560,000	$986,621	Yes
ST2/R15	UND – TTM #29151		**69**	**69**	**69**	A/E	64	62	60	59	57	57	Yes (6'-16')	Yes (6'-16')	10'	$2,560,000	$986,621	Yes
R16[F]	UND – TTM #29151		**70**	**71**	**70**	A/E	66	63	62	60	59	58	Yes (8'-16')	Yes (6'-16')	10'	$2,560,000	$986,621	Yes
R17[F]	UND – TTM #29151		**70**	**71**	**70**	A/E	64	62	60	59	58	57	Yes (6'-16')	Yes (6'-16')	10'	$2,560,000	$986,621	Yes
R18[F]	UND – TTM #29151		**67**	**67**	**67**	A/E	63	61	60	59	59	58	Yes (8'-16')	Yes (6'-16')	10'	$2,560,000	$986,621	Yes
R19[F]	UND – TTM #29151		**67**	**67**	**67**	A/E	63	62	60	59	58	58	Yes (8'-16')	Yes (6'-16')	10'	$2,560,000	$986,621	Yes
R20[F]	UND – TTM #29151	B3	**67**	**67**	**67**	A/E	62	61	60	59	58	57	Yes (6'-16')	Yes (6'-16')	10'	$2,560,000	$986,621	Yes
ST3/R21	73578 Armand Way		58	59	59	No	57	57	57	56	56	55	No	--	--	--	--	--
R22[F]	UND – TTM #29151		64	65	64	No	62	61	61	61	60	60	No	--	--	--	--	--
R23[F]	UND – TTM #29151		65	65	65	No	63	63	62	61	61	60	No	--	--	--	--	--
R24[F]	UND – TTM #29151		64	65	65	No	64	63	62	61	61	60	No	--	--	--	--	--
ST4/R25	32700 Desert Moon Drive		63	63	65	No	64	64	64	64	64	64	No	--	--	--	--	--
R26	32700 Desert Moon Drive	B3	60	60	59	No	58	57	57	57	57	57	No	--	--	--	--	--
R27	32700 Desert Moon Drive		60	60	60	No	58	58	58	58	58	58	No	--	--	--	--	--
R27-1	UND – COM – N. of WB On-Ramp	--	**66**	**67**	63	No	--	--	--	--	--	--	--	--	--	--	--	--
R27-2	UND – COM – N. of WB On-Ramp	--	65	65	61	No	--	--	--	--	--	--	--	--	--	--	--	--
R28	UND - TTM #29150	--	56	57	57	N/A	--	--	--	--	--	--	--	--	--	--	--	--
R29	UND - TTM #29150	--	58	58	60	N/A	--	--	--	--	--	--	--	--	--	--	--	--
R30	UND - TTM #29150	--	58	59	61	N/A	--	--	--	--	--	--	--	--	--	--	--	--
R31	UND - TTM #29150	--	57	58	59	N/A	--	--	--	--	--	--	--	--	--	--	--	--
R32	UND - TTM #29150	--	59	59	60	N/A	--	--	--	--	--	--	--	--	--	--	--	--
R33	UND - TTM #29150	--	58	58	58	N/A	--	--	--	--	--	--	--	--	--	--	--	--
R34	UND - TTM #29150	--	59	60	60	N/A	--	--	--	--	--	--	--	--	--	--	--	--
R35	UND - TTM #29150	--	61	62	61	N/A	--	--	--	--	--	--	--	--	--	--	--	--
R36	UND - TTM #29150	--	64	65	64	N/A	--	--	--	--	--	--	--	--	--	--	--	--

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Table 2.21: Noise Levels for Existing, Future No-Build, and Future-Build (continued)

Receptor #	Address	Barrier I.D.	Existing (2015) Noise Level (dBA)	Design Year (2040) Noise Level without Project (No-Build) (dBA)	Design Year (2040) Noise Level with Project (Build) (dBA)	Noise Impact Requiring Abatement Consideration	Predicted Noise Level with Abatement (dBA)						Feasible	Noise Abatement				
							6-foot Wall	8-foot Wall	10-foot Wall	12-foot Wall	14-foot Wall	16-foot Wall		Reasonable	Barrier Height	Total Reasonable Allowable	Construction Cost	Soundwall required?
R4	33761 Westchester Drive	B4	64	65	64	No	63	63	62	62	61	59	Yes (16')	Yes (16')	16'	$4,800,000	$3,156,486	Yes**
R5	33567 Sundance Trail		65	65	65	No	64	63	63	63	62	59	Yes (16')	Yes (16')	16'	$4,800,000	$3,156,486	Yes**
R6	33597 Sundance Trail		65	**66**	**66**	A/E	65	64	64	64	62	60	Yes (16')	Yes (16')	16'	$4,800,000	$3,156,486	Yes**
R7	33601 Sundance Trail		**66**	**67**	**66**	A/E	65	65	64	64	63	60	Yes (16')	Yes (16')	16'	$4,800,000	$3,156,486	Yes**
R8	33617 Sundance Trail		**66**	**67**	**66**	A/E	65	65	65	64	63	61	Yes (16')	Yes (16')	16'	$4,800,000	$3,156,486	Yes**
ST1/R9	33671 Sundance Trail		64	65	65	No	64	64	64	64	62	60	Yes (16')	Yes (16')	16'	$4,800,000	$3,156,486	Yes**
R10[F]	UND – TTM #29151		**66**	**66**	**66**	A/E	64	63	63	63	63	60	Yes (16')	Yes (16')	16'	$4,800,000	$3,156,486	Yes**
R11[F]	UND – TTM #29151		**66**	65	**66**	A/E	64	64	64	64	63	60	Yes (16')	Yes (16')	16'	$4,800,000	$3,156,486	Yes**
R12[F]	UND – TTM #29151		65	65	65	No	63	63	63	63	62	59	Yes (16')	Yes (16')	16'	$4,800,000	$3,156,486	Yes**
R13[F]	UND – TTM #29151		64	64	64	No	62	62	62	61	61	58	Yes (16')	Yes (16')	16'	$4,800,000	$3,156,486	Yes**
R14[F]	UND – TTM #29151		**69**	**69**	**69**	A/E	67	67	67	66	64	62	Yes (14'-16')	Yes (16')	16'	$4,800,000	$3,156,486	Yes**
ST2/R15	UND – TTM #29151		**69**	**69**	**69**	A/E	67	66	66	66	65	62	Yes (16')	Yes (16')	16'	$4,800,000	$3,156,486	Yes**
R16[F]	UND – TTM #29151		**70**	**71**	**70**	A/E	68	67	67	67	65	63	Yes (14'-16')	Yes (16')	16'	$4,800,000	$3,156,486	Yes**
R17[F]	UND – TTM #29151		**70**	**71**	**70**	A/E	68	67	67	67	65	63	Yes (14'-16')	Yes (16')	16'	$4,800,000	$3,156,486	Yes**
R18[F]	UND – TTM #29151		**67**	**67**	**67**	A/E	66	65	65	64	63	61	Yes (16')	Yes (16')	16'	$4,800,000	$3,156,486	Yes**
R19[F]	UND – TTM #29151		**67**	**67**	**67**	A/E	66	65	65	65	63	61	Yes (16')	Yes (16')	16'	$4,800,000	$3,156,486	Yes**
R20[F]	UND – TTM #29151		**67**	**67**	**67**	A/E	66	65	65	65	64	63	No	--	--	--	--	--
ST3/R21	73578 Armand Way		58	59	59	No	58	58	58	57	56	54	Yes (16')	Yes (16')	16'	$4,800,000	$3,156,486	Yes**
R22[F]	UND – TTM #29151		64	65	64	No	62	61	61	61	60	58	Yes (16')	Yes (16')	16'	$4,800,000	$3,156,486	Yes**
R23[F]	UND – TTM #29151		65	65	65	No	63	63	63	62	61	59	Yes (16')	Yes (16')	16'	$4,800,000	$3,156,486	Yes**
R24[F]	UND – TTM #29151		64	65	65	No	64	64	63	63	62	60	Yes (16')	Yes (16')	16'	$4,800,000	$3,156,486	Yes**
ST4/R25	32700 Desert Moon Drive		63	63	65	No	64	64	64	64	63	63	No	--	--	--	--	--
R26	32700 Desert Moon Drive		63	60	59	No	58	58	58	58	57	56	No	--	--	--	--	--
R27	32700 Desert Moon Drive		60	60	60	No	58	58	59	58	58	57	No	--	--	--	--	--
ST5/R40	74580 Varner Road	B5	**72**	**73**	**73**	A/E	73	73	72	71	66	63	Yes (14'-16')	Yes (14')	14'	$1,024,000	$1,064,070	Yes*
ST6/R41	35615 Sand Rock Road		**71**	**72**	**72**	A/E	72	71	70	68	66	65	Yes (14'-16')	Yes (14')	14'	$1,024,000	$1,064,070	Yes*
ST7/R42	14611 Sweetwell Road		**66**	**67**	**67**	A/E	67	66	64	62	61	61	Yes (12'-16)	Yes (14')	14'	$1,024,000	$1,064,070	Yes*
ST8/R43	74711 Sweetwell Road		64	65	65	No	65	63	62	61	60	59	Yes (14'-16')	Yes (14')	14'	$1,024,000	$1,064,070	Yes*
R44	74580 Varner Road		62	62	62	No	62	61	60	59	58	58	No	--	--	--	--	--
R45	74580 Varner Road		**68**	**69**	**69**	A/E	68	66	65	64	64	63	Yes (12'-16)	Yes (14')	14'	$1,024,000	$1,064,070	Yes*
ST9/R46	74580 Varner Road		**68**	**69**	**67**	A/E	67	66	65	64	63	63	No	--	--	--	--	--
R37	UND - TTM #29150	B6	**66**	**67**	**66**	N/A	65	65	65	65	65	65	No	--	--	--	--	--
R38	UND - TTM #29150		**72**	**72**	**72**	N/A	71	71	71	71	70	70	No	--	--	--	--	--
R39	UND - TTM #29150		**75**	**76**	**75**	N/A	73	73	72	71	70	70	Yes (14'-16')	No	16'	$448,000	$1,421,403	No
ST5/R40	74580 Varner Road		**72**	**73**	**73**	A/E	71	71	70	69	69	68	Yes (16')	No	16'	$448,000	$1,421,403	No
ST6/R41	35615 Sand Rock Road		**71**	**72**	**72**	A/E	71	70	70	69	68	67	Yes (16')	No	16'	$448,000	$1,421,403	No
ST7/R42	14611 Sweetwell Road		**66**	**67**	**67**	A/E	66	66	66	64	63	63	No	--	--	--	--	--

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Table 2.21: Noise Levels for Existing, Future No-Build, and Future-Build (continued)

Receptor #	Address	Barrier I.D.	Existing (2015) Noise Level (dBA)	Design Year (2040) Noise Level without Project (No-Build) (dBA)	Design Year (2040) Noise Level with Project (Build) (dBA)	Noise Impact Requiring Abatement Consideration	Predicted Noise Level with Abatement (dBA)						Feasible	Noise Abatement				
							6-foot Wall	8-foot Wall	10-foot Wall	12-foot Wall	14-foot Wall	16-foot Wall		Reasonable	Barrier Height	Total Reasonable Allowable	Construction Cost	Soundwall required?
ST8/R43	74711 Sweetwell Road	B6	64	65	65	No	64	64	64	63	62	61	No	--	--	--	--	--
R44	74580 Varner Road		62	62	62	No	62	61	61	61	59	59	No	--	--	--	--	--
R45	74580 Varner Road		**68**	**69**	**69**	A/E	68	67	67	66	66	65	No	--	--	--	--	--
ST9/R46	74580 Varner Road	B6	**68**	**69**	**67**	A/E	67	66	66	64	64	65	No	--	--	--	--	--
ST13/R47	FCD		61	61	56	No	--	--	--	--	--	--	--	--	--	--	--	--
ST10/R48	73823 Rivera Court		55	55	55	No	--	--	--	--	--	--	--	--	--	--	--	--
ST11/R49	73861 DaVinci Court		55	55	55	No	--	--	--	--	--	--	--	--	--	--	--	--
ST12/R50	35894 Raphael Drive		54	55	56	No	--	--	--	--	--	--	--	--	--	--	--	--
R51	UND		56	57	58	No	--	--	--	--	--	--	--	--	--	--	--	--

Notes: *While, B2 and B5 do have an Estimated Construction Cost over the Total Reasonable Allowance, but the cost is within 10% of the Reasonable Allowance, making these soundwalls reasonable.
**While B4 is reasonable and feasible at a height of 16 feet, due HDM 1102.3 the maximum height is 14 feet. A 14 foot high wall is not reasonable (See Table 2.22).
Ŧ The residential development plan associated with this receiver location has expired (Riverside County, 2017). This development project is no longer active; therefore, this location is no longer considered a future potential sensitive receptor.

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Permanent Impacts

Future noise levels were modeled using the projected future 2040 peak-hour traffic volumes obtained from the Traffic Operations Analysis (2009, updated 2015). Table 2.21 shows the modeled existing conditions, the future No Build Alternative, and Build Alternatives 2 and 3 noise level results. The modeled future noise levels with the project were compared to the modeled existing noise levels to determine whether a substantial noise increase would occur. In summary, none of the alternatives would result in a substantial noise increase of 12 dBA or more over the corresponding existing noise level at any of the 53 modeled receivers. The modeled future noise levels were also compared to the 67 dBA L_{eq} NAC under Activity Category B (residential) to determine whether a traffic noise impact would occur. As shown in Table 2.21, a number of receivers would experience noise levels that approach or exceed 67 dBA L_{eq} NAC, under existing, future no build, and both future Build Alternatives. Since receivers would experience traffic noise levels that approach or exceed 67 dBA L_{eq} NAC for the Build Alternatives at various locations, noise abatement measures must be considered. Generally, noise abatement is in the form of noise barriers, located between the noise source and the receiver.

Build Alternatives 2 and 3

Build Alternatives 2 and 3 are very similar; however, they differ by the type of ramp loop design. Build Alternative 2 would consist of a Modified Partial Cloverleaf and Build Alternative 3 would consist of a Modified Single-Quadrant Cloverleaf. For the purpose of assessing noise impacts, the design difference in loop ramp designs does not have a noticeable effect on noise levels experienced at nearby sensitive receivers because traffic volumes and the location of the loop ramp designs do not differ substantially between the two alternatives. Both Build Alternatives 2 and 3 would construct a new six through-lane overpass extending Portola Avenue over I-10 and the UPRR tracks with on-ramps and off-ramps. Both Build Alternatives would widen and realign Varner Road near the Portola Avenue/Varner Road intersection. Both Build Alternatives would construct auxiliary lanes between the proposed I-10/Portola Avenue New Interchange and the adjacent interchanges at Monterey Avenue and Cook Street. Due to the similarities between the two Build Alternatives, future noise levels for both Build Alternatives 2 and 3 are considered to be identical.

The following receiver locations would be or would continue to be exposed to noise levels that approach or exceed the 67 dBA L_{eq} NAC under Activity Category B for Build Alternatives 2 and 3:

- **Receivers R-6, R-7, and R-8**: These receiver locations represent existing residences on Sundance Trail, just west of Boca Chica Trail and north of I-10. Currently there are no existing walls that shield these residences from freeway traffic noise. Each of these receivers was modeled at 66 dBA in the design year with either Build Alternative. Two sound barriers were modeled for these receiver locations. B1 is located along the southern edge of these three receivers and B4 is located along the northern edge of Caltrans right of way, adjacent to I-10.

- **Receivers R-10 and R-11**: These receiver locations represent planned future residential development for houses east of Boca Chica Trail and north of I-10. Each of these receivers was modeled at 66 dBA in the design year with either Build Alternative. Two sound barriers were modeled for these receiver locations. B2 is located along the southern edge of these receivers and B4 is located along the northern edge of Caltrans right of way, adjacent to I-10. The development associated with these receiver locations has had its application for

residential development expired. This development project is no longer active; therefore, these locations are no longer considered future potential sensitive receptors

- **Receivers R-14 through R-20**: These receiver locations represent planned future residential development for houses just west of Amada Way and north of I-10. Several houses have been constructed in this area but remain unoccupied and further construction remains on hold. Currently there are no existing walls that shield these residences from freeway traffic noise. These receivers were modeled at noise levels ranging from 67-70 dBA in the design year with either Build Alternative. Two sound barriers were modeled for these receiver locations. B3 is located along the southern edge of these receivers and B4 is located along the northern edge of Caltrans right of way, adjacent to I-10. The development associated with these receiver locations has had its application for residential development expired. This development project is no longer active; therefore, these locations are no longer considered future potential sensitive receptors

- **Receivers R-37, R-38, and R-39**: These receiver locations represent planned future residential development for houses just west of Jack Ivey Drive and north of I-10. Currently there are no existing walls that shield these residences from freeway traffic noise. These receivers were modeled at noise levels ranging from 66-75 dBA in the design year with either Build Alternative. One sound barrier was modeled for these receiver locations. B6 is located along the northern edge of Caltrans right of way, adjacent to I-10.

- **Receivers R-40, R-41, R-42, R-45, and R-46**: These receiver locations represent existing residences on Sweetwell Road and Sand Rock Road, just east of Jack Ivey Drive and north of I-10. Currently there is an existing concrete block wall shielding these residences, associated with the Ivey Ranch Golf and Country Club. These receivers were modeled at noise levels ranging from 67-73 dBA in the design year with either Build Alternative. Two sound barriers were modeled for these receiver locations. B5 is located along the southern edge of these three receivers and would replace the existing sound wall, and B6 is located along the northern edge of Caltrans right of way, adjacent to I-10

Table 2.22 provides a summary of the reasonable and feasible noise barrier analysis performed for each evaluated sound wall.

Table 2.23 which follows, summarizes the number of benefited residences for each of the studied noise barriers, and is based on the January 2015 Noise Abatement Decision Report.

Table 2.22: Reasonable and Feasible Noise Barrier Analysis

Barrier	Location	Receptor ID #	Height (feet)	Noise Reduction	Acoustically Feasible? (5dBA)	Caltrans Design Goal Met? (7dBA)	Number of Benefited Residences	Total Reasonable Allowance	Estimated Construction Cost	Cost Less than Allowance?
B1	PM42.9 to PM42.9 (Station 2366+73 to 2369+33)	R7 & R8	**6**	**5**	**Yes**	**No**	**3**	**$192,000**	**$63,950**	**Yes**
		R6, R7,& R8	**8**	**8**	**Yes**	**Yes**	**5**	**$320,000**	**$79,273**	**Yes**
			10	**10**	**Yes**	**Yes**	**5**	**$320,000**	**$94,596**	**Yes**
			12	**11**	**Yes**	**Yes**	**5**	**$320,000**	**$108,671**	**Yes**
			14	**12**	**Yes**	**Yes**	**5**	**$320,000**	**$122,746**	**Yes**
			16	**12**	**Yes**	**Yes**	**5**	**$320,000**	**$138,786**	**Yes**
B2	PM44.9 to PM45.0 (Station 2373+09 to 2377+95)	R11[F]	6	5	Yes	No	1	$64,000	$110,521	No
		R10[F] & R11[F]	8	7	Yes	Yes	2	$128,000	$137,638	No*
			10	8	Yes	Yes	2	$128,000	$164,755	No
			12	9	Yes	Yes	2	$128,000	$189,664	No
			14	10	Yes	Yes	2	$128,000	$214,573	No
			16	11	Yes	Yes	2	$128,000	$242,960	No
B3	PM45.1 to PM45.6 (Station 2383+55 to 2390+31 and 2391+19 to 2409+40)	R14[F], R15, R17[F], & R20[F]	6	6	Yes	No	25	$1,600,000	$661,845	Yes
		R14[F], R15, R16[F], R17[F], R18[F], R19[F], & R20[F]	**8**	**8**	**Yes**	**Yes**	**40**	**$2,560,000**	**$824,233**	**Yes**
			10	**10**	**Yes**	**Yes**	**40**	**$2,560,000**	**$986,621**	**Yes**
			12	**11**	**Yes**	**Yes**	**40**	**$2,560,000**	**$1,135,788**	**Yes**
			14	**12**	**Yes**	**Yes**	**40**	**$2,560,000**	**$1,284,955**	**Yes**
		R14-R20[F], R23[F], & R24[F]	**16**	**13**	**Yes**	**Yes**	**65**	**$4,160,000**	**$1,454,945**	**Yes**
B4	PM44.7 to PM45.8 (Station 2360+9 to 2418+21)		6	2	NA	NA	NA	NA	NA	NA
			8	3	NA	NA	NA	NA	NA	NA
			10	3	NA	NA	NA	NA	NA	NA
			12	3	NA	NA	NA	NA	NA	NA
		R14[F], R16[F], & R17[F]	14	5	Yes	No	11	$704,000	$2,787,696	No

Table 2.22: Reasonable and Feasible Noise Barrier Analysis (continued)

Barrier	Location	Receptor ID #	Height (feet)	Noise Reduction	Acoustically Feasible? (5dBA)	Caltrans Design Goal Met? (7dBA)	Number of Benefited Residences	Total Reasonable Allowance	Estimated Construction Cost	Cost Less than Allowance?
B4	PM44.7 to PM45.8 (Station 2360+9 to 2418+21)	R4-R19Ŧ, R21, R22Ŧ, R23Ŧ, & R24Ŧ	**16**	**7**	**Yes**	**Yes**	**75**	**$4,800,000**	**$3,156,486**	**Yes****
B4.2	PM45.4 to PM45.8 (Station 2399+37 to 2418+21)		6	2	NA	NA	NA	NA	NA	NA
			8	3	NA	NA	NA	NA	NA	NA
			10	3	NA	NA	NA	NA	NA	NA
			12	3	NA	NA	NA	NA	NA	NA
			14	4	NA	NA	NA	NA	NA	NA
		R19Ŧ & R24Ŧ	16	6	Yes	No	18	$1,152,000	$1,093,912	Yes
B5	PM46.3 to PM46.6 (Station 2446+66 to 2460+58)		6	1	NA	NA	NA	NA	NA	NA
			8	3	NA	NA	NA	NA	NA	NA
			10	4	NA	NA	NA	NA	NA	NA
		R42 & R45	12	5	Yes	No	7	$448,000	$943,261	No
		R40, R41, R42, R43, & R45	14	7	Yes	Yes	16	$1,024,000	$1,064,070	No*
			16	10	Yes	Yes	16	$1,024,000	$1,201,742	No
B6	PM46.3 to PM46.8 (Station 2442+05 to 2468+51)		6	2	NA	NA	NA	NA	NA	NA
			8	2	NA	NA	NA	NA	NA	NA
			10	3	NA	NA	NA	NA	NA	NA
			12	4	NA	NA	NA	NA	NA	NA
		R39	14	5	Yes	No	3	$192,000	$1,255,332	No
		R39, R40, & R41	16	5	Yes	No	7	$448,000	$1,421,403	No

Reasonable and Feasible Wall Heights are represented by **bolded text**

Ŧ The residential development plan associated with this receiver location has expired (Riverside County, 2017). This development project is no longer active; therefore, this location is no longer considered a future potential sensitive receptor.

*Note 1: Although Barrier 2 (8 feet tall) and Barrier 5 (14 feet tall) are shown to be not reasonable since they cost more than the allowance per benefitted residence, the total cost of the wall can be reduced if private property owners donate sound barrier footing easements and construction easements. In this circumstance, these two walls at the specified heights may be considered reasonable due to the construction cost reduction.

**Note 2: Barrier 4 is reasonable and feasible at 16 feet; however, due to HDM 1102.3, the maximum height is 14 feet due to proximity to the interstate.

***Note 3: Post Miles were measured by comparing preliminary project plans to the existing Interstate 10 Post Mile Locations (Caltrans, 2016)

Source: Noise Abatement Decision Report (January 2015)

Table 2.23: Summary of Noise Abatement Decisions

Noise Barrier	Height	# of Benefited Residences	Reasonable w/o Easements	Reasonable w/ Construction Easements Only	Reasonable w/ all easements	Preliminarily Recommended for Construction	Caltrans Design Goal Met? (7dBA)	Analyzed 10% More than Reasonable (easements)
PB1	10	5	YES	YES	YES	YES	YES	YES
PB2	8	2	YES	YES	NO	YES	YES	YES
PB3	10	40	YES	YES	YES	YES	YES	YES
PB4	14	11	NO	NO	NO	NO	NO	NO
PB4.2	16	18	YES	YES	YES	NO	NO	YES
PB5	14	16	YES	YES	NO	YES	YES	YES
PB6	14	3	NO	NO	NO	NO	NO	NO

Soundwall Survey

On May 16, 2016, Riverside County, in cooperation with Caltrans, sent all property owners and residents of properties that would be affected by the proposed soundwalls for this project a letter via certified United States Postal Service mail. This letter provided a brief description of the project, the existing and future noise conditions, and described the specific soundwall that was proposed to be constructed on or adjacent to their property. The letter provided a Soundwall Voting Form and requested that the property owner complete the form and return it to Riverside County indicating if they would, or would not like to have a soundwall constructed to reduce traffic noise. The information provided included an exhibit showing the location of the soundwall and contact information for both Riverside County and Caltrans. Letters were sent to property owners affected by Soundwalls B1, B2, B3, and B5 and the only difference in the content of the letters sent was that B1, B2, and B3 are proposed to be located on private property, while B5 is proposed to be located on Riverside County right of way (Varner Road).

Soundwall B1 affected five existing residences and letters were sent to both physical and mailing addresses. Soundwall B2 affected one property owner (multiple APNs) for a planned development and one letter was sent to the mailing address provided. Soundwall B3 affected one property owner (multiple APNs) for a planned development and one letter was sent to the mailing address provided. Soundwall B5 affected 19 properties (mostly residences) and 15 property owners. A total of 19 letters were sent to physical and mailing addresses. Responses were requested by June 13, 2016.

On June 6, 2016, Riverside County received a response letter from the legal firm representing the Jack Ivey Ranch Homeowners Association. The letter outlined concerns with how a potential soundwall would be constructed in conjunction with existing features of the Ivey Ranch Country Club development, as well as concerns regarding the identified response-by date, June 13, 2016. Following a conference call between Riverside County Public Works staff and the legal firm representing the Jack Ivey Ranch Homeowners Association, the deadline to respond to the Soundwall Voting Form was extended to July 20, 2016 and a formal meeting was scheduled to take place on June 30, 2016, with the Jack Ivey Ranch Homeowners Association at the Ivey Ranch Country Club. During this meeting, Riverside County Public Works staff provided the Jack Ivey Ranch Homeowners Association a detailed description of the I-10/Portola Ave New

Interchange Project along with an explanation of the soundwall voting process. A field visit to the proposed soundwall location occurred with attendees of the meeting. Potential design options to minimize impacts to the Ivey Ranch Country Club development were discussed. Support for the proposed "B5" Soundwall was expressed.

For soundwalls B1, B2, and B3 proposed on private property, unanimous support was needed since access on those private properties is necessary to construct the wall. For Soundwall B5, proposed on public right of way, FHWA policies dictate that over 50% of the affected property owners must provide written agreement. The results of the soundwall survey are provided below:

- Soundwall B1 – One "Yes" vote received, two "No" votes received, two non-responsive.
- Soundwall B2 – One non-responsive.
- Soundwall B3 – One non-responsive.
- Soundwall B5 – Eleven "Yes" votes received, letter of support from the Jack Ivey Ranch Homeowners Association, four non-responsive.

Soundwalls B1, B2, and B3 did not receive the requisite unanimous "Yes" votes from all affected property owners and are not proposed as design features of the I-10/Portola Avenue New Interchange Project. Additionally, these development applications with Riverside County that would have been protected by Soundwalls B2 and B3 have expired and the proposed receptor locations should no longer be considered sensitive receptors. As a result, Soundwalls B2 and B3 have been removed from future consideration for this project. Soundwall B5 received "Yes" votes from 11 of the 19 affected property owners as well as a letter of support from the Jack Ivey Ranch Homeowners Association; as a result Soundwall B5 did meet the required over 50% "Yes" votes and will be proposed as a noise abatement design feature of the I-10/Portola Avenue New Interchange Project.

No-Build Alternative

The results in Table 2.21 indicate that the predicted Traffic Noise for the Design year 2040, would approach or exceed the NAC of 67 dBA L_{eq} for Activity Category B (residential) and Activity Category C (active sport areas) land uses at 20 of the modeled land uses during the Design year No Build condition (these receptors are identified as R6, R7, R8, R10, R11, R14-R20, R37-R42, R45 and R46). Comparative noise changes between the Build Alternatives and the No Build Alternative would range from 0 dBA to 5dBA.

Temporary Impacts

Short term noise impacts that could occur would be related to noise generated during construction. Construction is performed in discrete steps, each of which has its own mix of equipment and consequently its own noise characteristics. These various sequential phases would change the character of the noise generated and the noise levels as well along the project alignment as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operations allow construction-related noise ranges to be categorized by work phase. Table 2.24 lists typical construction equipment noise levels (Lmax) recommended for noise impact assessments, based on a distance of 50 feet between the equipment and the noise receiver.

Table 2.24: Typical Construction Equipment Noise Levels

Type of Equipment	Range of Maximum Sound Levels (dBA Lmax at 50 feet)	Suggested Maximum Sound Levels for Analysis (dBA Lmax at 50 feet)
Pile Drivers	81 to 96	93
Rock Drills	83 to 99	96
Jackhammers	75 to 85	82
Pneumatic Tools	78 to 88	85
Pumps	74 to 84	80
Scrapers	83 to 91	87
Haul Trucks	83 to 94	88
Cranes	79 to 86	82
Portable Generators	71 to 87	80
Rollers	75 to 82	80
Dozers	77 to 90	85
Tractors	77 to 82	80
Front-End Loaders	77 to 90	86
Hydraulic Backhoe	81 to 90	86
Hydraulic Excavators	81 to 90	86
Graders	79 to 89	86
Air Compressors	76 to 89	86
Trucks	81 to 87	86

Source: Noise Control for Buildings and Manufacturing Plants, Bolt, Beranek & Newman, 1987
dBA = A-weighted decibels
Lmax = maximum sound level

Typical noise levels at 50 feet from an active construction area range up to 91 dBA Lmax during the noisiest construction phases. The site preparation phase, which includes grading and paving, tends to generate the highest noise levels because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery such as back fillers, bulldozers, and front loaders. Pile diving is another construction activity which can generate some of the highest construction noise.

Construction of the project is expected to require the use of a wide array of equipment identified in Table 2.24 above. Noise associated with the use of construction equipment is estimated between 79 and 89 dBA Lmax at a distance of 50 feet from the active construction area. Pile driving could generate noise levels of approximately 93 dBA Lmax at 50 feet. The closest sensitive receptors are located over 200 feet from where most earthwork and pile driving would occur and construction noise would be expected to be less than the projected maximums.

Compliance with the construction hours specified in the City of Palm Desert and Riverside County codes would be required. In addition, the project will adhere to the Caltrans Standard Special Provision for minimization of construction noise. To minimize construction noise impacts on sensitive land uses adjacent to the project site, construction noise is regulated by Caltrans Standard Specifications in Section 14-8.02, “Noise Control,” and also by SSP 14-8.02, “Noise Control.”

The noise level from the Contractor's operations, between the hours of 9:00 p.m. and 6:00 a.m., shall not exceed 86 dBA Lmax at a distance of 50 feet. The Contractor should use an alternative warning method instead of a sound signal unless required by law. In addition, the Contractor shall equip all internal combustion engines with the manufacturer recommended muffler and shall not operate any internal combustion engine on the job site without its appropriate muffler.

No-Build Alternative

The No-Build Alternative would not result in any construction or other changes in traffic patterns which would change permanent noise generation sources in the project area. No construction noise would occur.

Avoidance, Minimization, and/or Abatement Measures

Sound Barrier Feasibility

Section 3 of the Noise Protocol states that a minimum noise reduction of 5 dBA must be achieved at the impacted receivers in order for the proposed noise abatement measure to be considered feasible. Additionally a minimum reduction of 7 dBA must be achieved for one benefited receiver. The feasibility criterion is not necessarily a noise abatement design goal. Greater noise reductions are encouraged if they can be reasonably achieved. Feasibility may also be restricted by the following factors: 1) topography; 2) access requirements for driveways; 3) local cross streets; 4) other noise sources in the area; and 5) safety considerations.

Table 2.21 shows the sound levels at sensitive receivers with or without sound barriers modeled at the six heights. Underlined noise levels represent a minimum of 5 dBA in noise reduction resulting from the sound barrier height listed. Of the 36 modeled sound barriers evaluated (six sound barriers at six different heights), 25 sound barriers under Build Alternatives 2 and 3 were determined to be feasible. Eleven barriers were determined to not be feasible because none of them would reduce noise levels by 5 dBA or more.

Sound Barrier Reasonableness

Caltrans' noise protocol states that a preliminary reasonableness determination of providing noise abatement for exteriors of residential areas in Activity Category B (which includes residential areas) begins with a $64,000 base allowance per benefited residence. The $64,000 base allowance is adjusted using the following five factors in order to determine the total reasonable allowance per benefited residence:

- Absolute noise level
- Design year increase over existing noise levels
- Achievable noise reduction
- New highway construction or pre-1978 residences
- Total reasonable allowance vs. project cost

The reasonableness of a sound barrier was determined by comparing the estimated construction cost of the sound barrier against the total reasonable allowance. The total reasonable allowance was determined based on the number of benefited residences multiplied by the reasonable allowance per residence. The estimated sound barrier construction costs were developed in terms of dollars per square foot in the Noise Abatement Decision Report (January 2015). The estimated sound barrier construction cost was calculated by multiplying the height, approximate length, and

the cost of sound barrier per square foot. If the estimated sound barrier construction cost exceeds the total reasonable allowance, the sound barrier is determined to be not reasonable. However, if the estimated sound barrier construction cost is within the total reasonable allowance, the sound barrier is determined to be reasonable.

Noise abatement measures such as sound barriers were considered to shield noise-sensitive receivers within the project area that would or would continue to be exposed to traffic noise levels approaching or exceeding the NAC. All properties where noise abatement was considered are within Category B (67 dBA Leq NAC). Bold numbers in Table 2.21 show receiver locations that would approach or exceed the 67 dBA Leq NAC under Build Alternatives 2 and 3. Sound barriers were analyzed for each of these sensitive receiver locations. At each location, size sound barrier heights were analyzed: 6, 8, 10, 12, 14, and 16 feet. The results of the sound barrier modeling are provided in Table 2.21. The locations of the modeled sound barriers are shown in Figure 2.22.

A summary of the noise impacts and recommended noise abatement for Build Alternatives 2 and 3 based on the reasonable and feasible criteria is provided below:

ST1/R9 (see Figure 2.22) represents 10 homes (or future planned homes) located near Boca Chica Trail just east of Varner Road in a portion of unincorporated Riverside County. Measurements taken at ST1/R9 show that the existing noise level at that location is 64 dBA. The future noise level for receptors associated with ST1/R9 range from 64-66 dBA. Because the predicted future noise level for Receptors R6, R7, R8, R10, and R11 approaches the NAC for residential uses (67 dBA), these receptors would be adversely affected by noise. To achieve a 5 dBA reduction at all adversely affected receptors and an additional design goal of 7 dBA reduction for at least 1 receptor, noise barriers are recommended. B1, located at approximately PM42.9 to PM42.9 would abate noise impacts for R6, R7, and R8 and is feasible and reasonable at a height of eight (8) feet but is recommended at a height of ten (10) feet tall due to a greater noise reduction which would still meet the reasonable criteria. The total cost allowance, calculated as directed by Caltrans' Traffic Noise Analysis Protocol, is $320,000 and the current estimated cost of a ten foot wall is $94,596.

Noise barrier B2 would be located just south of Boca Chica Trail from approximately PM44.9 to PM45.0. This barrier would abate noise impacts for R10 and R11. This barrier is feasible and reasonable at a height of eight (8) feet. The total cost allowance, calculated as directed by Caltrans' Traffic Noise Analysis Protocol, is $128,000 and the current estimated cost of an eight foot wall is $137,638; however, this cost can be reduced to below $128,000 if sound barrier easements and construction easements are donated by the property owners. The development applications for the residential development where sensitive receptors R10 and R11 are located have expired. Since this development project is no longer active, there is no reason to consider these locations as future potential sensitive receptors, and; therefore, no noise barrier is necessary.

ST2/R15 (see Figure 2.22) represents numerous future planned homes located east of Varner Road in a portion of unincorporated Riverside County. Measurements taken at ST2/R15 show that the existing noise level at that location is 69 dBA. The future noise level for receptors associated with ST2/R15 range from 67-70 dBA. Because the predicted future noise level for Receptors R14, R15, R16, R17, R18, R19, and R20 exceeds the NAC for residential uses (67 dBA), these receptors would be adversely affected by noise. To achieve a 5 dBA reduction at all adversely affected receptors and an additional design goal of 7 dBA reduction for at least 1 receptor, noise barriers are recommended. B3, located at approximately PM45.1 to PM45.6, would abate noise impacts for each of the affected sensitive receptors and is feasible and

reasonable at a height of eight (8) feet but is recommended at a height of ten (10) feet tall due to a greater noise reduction which would still meet the reasonable criteria. The total cost allowance, calculated as directed by Caltrans' Traffic Noise Analysis Protocol, is $2,560,000 and the current estimated cost of a ten foot wall is $986,621. The development applications for residential developments where sensitive receptors R14, R15, R16, R17, R18, R19, and R20 are located have expired. Since this development project is no longer active, there is no reason to consider these locations as future potential sensitive receptors, and; therefore, no noise barrier is necessary.

Noise Barrier B4, located at approximately PM44.7 to PM45.8, was considered to abate noise for sensitive receptors R4-R24; however, this barrier is not recommended as it does not meet FHWA's standards of reasonable and feasible. Barriers evaluated at 6, 8, 10, and 12 feet tall were found to be not feasible due to limited noise reduction and barriers evaluated at 14 feet were not reasonable based on the high cost relative to the low number of residences that would experience noise reduction. Barriers evaluated at 16 feet may be reasonable and feasible but do not meet the maximum height limit according to HDM 1110.3. The total cost allowance, calculated as directed by Caltrans' Traffic Noise Analysis Protocol, is $704,000 and the current estimated cost of a fourteen foot wall is $2,787,696.

Noise Barrier B4.2, located at approximately PM45.4 to PM45.8, was considered to abate noise for sensitive receptors R19-R27; however, this barrier is not recommended as it does not meet FHWA's standards of reasonable. Barriers evaluated at 6, 8, 10, 12, 14, and 16 feet tall were found to be not feasible due to limited noise reduction, not meeting the FHWA Noise Abatement Criteria or the 7dBA reduction goal.

ST5/R40 through ST9/R46 (see Figure 2.22) represents numerous homes within a golf course development east of Varner Road and north of Cook Street in a portion of unincorporated Riverside County. As an outdoor recreational use the golf course is also considered sensitive to increases in vehicle noise. Measurements taken at ST5/R40 through ST9/R46 show that the existing noise levels at that location to range from 64-72 dBA. The future noise level for receptors associated with ST5/R40 through ST9/R46 range from 65-73 dBA. Because the predicted future noise level for Receptors R40, R41, R42, R45, and R46 exceeds the NAC for residential uses (67 DBA), these receptors would be adversely affected by noise. To achieve a 5 dBA reduction at all adversely affected receptors and an additional design goal of 7 dBA reduction for at least 1 receptor, noise barriers are recommended. B5, located at approximately PM46.3 to PM46.6, would abate noise impacts for each of the affected sensitive receptors and is feasible and reasonable at a height of fourteen (14) feet. The total cost allowance, calculated as directed by Caltrans' Traffic Noise Analysis Protocol, is $1,024,000 and the current estimated cost of an eight foot wall is $1,064,070; however, this cost can be reduced to below $1,024,000 if sound barrier easements and construction easements are donated by the property owners.

Noise Barrier B6, located at approximately PM46.3 to PM46.8, was considered to abate noise for sensitive receptors R40-R46. However, this barrier is not recommended as it does not meet FHWA's standards of reasonable and feasible. Barriers evaluated at 6, 8, 10, and 12 feet tall were found to be not feasible due to limited noise reduction and barriers evaluated at 14 feet and 16 feet were not reasonable based on the high cost relative to the low number of residences that would experience noise reduction. The total cost allowance, calculated as directed by Caltrans' Traffic Noise Analysis Protocol, is $192,000 and the current estimated cost of a fourteen foot wall is $1,255,332.

Based on the studies completed to date, Caltrans intends to incorporate noise abatement in the form of barrier B5, with a length of 2194 feet and average height of 14 feet. Calculations based on preliminary design data show that this barrier will reduce noise levels by 5 to 7 dBA for 15 residences at a cost of $1,064,070.00. If during final design conditions have substantially changed, noise abatement may not be necessary. The final decision on noise abatement will be made upon completion of the project design.

The following minimization measure will be implemented during construction to address potential noise impacts:

NOI-1: The control of noise from construction activities shall conform to Caltrans' Standard Specifications in Section 14-8.02, "Noise Control." The noise level from the Contractor's operations, between the hours of 9:00 p.m. and 6:00 a.m., shall not exceed 86 dBA Lmax at a distance of 50 feet. The Contractor should use an alternative warning method instead of a sound signal unless required by safety laws. In addition, the Contractor shall equip all internal combustion engines with the manufacturer-recommended muffler and shall not operate any internal combustion engine on the job site without its appropriate muffler.

CEQA Noise Analysis

The CEQA noise analysis is completely independent of the NEPA 23 CFR 772 analysis discussed in the previous section. To determine if a noise impact is significant under CEQA, the existing (baseline) noise levels and the Build Alternative noise levels must be compared. Existing (Design Year No-Build Alternative) and With-Project (Design Year Build Alternative 2 or 3) noise levels were modeled at 53 receiver locations (Figure 2.22, Table 2.21). Were the project to be implemented, the following could be expected:

- 16 receivers (30%) would experience a 1 to 5 dBA reduction from existing noise levels.
- 30 receivers (57%) would experience no change (0 dBA) from existing noise levels.
- 7 receivers (34%) would experience a 1 to 2 dBA increase from existing noise levels (Noise level changes of 1 to 2 dBA are generally not perceptible to the human ear.)
- 0 receivers would experience a 3 dBA increase or more from existing noise levels (Noise level changes of 3 dBA are generally barely perceptible to the human ear.)

Overall, the project would have minimal changes to the existing noise environment. At a few locations, there would be a perceptible reduction in noise levels, but no receivers would experience a barely perceptible increase (3 dBA) over the existing noise levels. Therefore, under CEQA noise impacts would be less than significant as a result of the project and no mitigation is required.

2.3 Biological Environment

2.3.1 Natural Communities

Regulatory Setting

This section of the document 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 in the Threatened and Endangered Species Section 2.3.5. Wetlands and other Waters are discussed in Section 2.3.2.

Affected Environment

This Natural Communities section is a summary of the information provided in the Natural Environment Study prepared for the proposed project in October of 2011 and a Natural Environment Study Amendment prepared for the proposed project in October of 2017. For the purposes of this analysis, a biological study area (BSA) was established and includes the maximum grading extent (both temporary and permanent) of the two Build Alternatives, plus a buffer area. The BSA runs east of Monterey Avenue to west of Cook Street in the City of Palm Desert (see Figure 2.23). The study area extends 360 feet beyond the proposed project in the vicinity of the I-10/Portola Avenue New Interchange. North of I-10, where Varner Road is not realigned, and the project limits extend 360 feet on either side of the proposed extension. Where the areas of I-10 and Varner Road realign, the study area extends 360 feet north of the proposed Varner Road. South of I-10, the study area extends 360 feet on either side of the proposed Portola Avenue extension.

Habitat Communities within the BSA

Vegetation within the BSA has been heavily affected by construction and maintenance of the I-10 freeway, the UPRR, and local residential and commercial development. Although the BSA has substantial prior disturbance, the BSA does contain Sonoran creosote bush scrub, ruderal/saltbush scrub, and tamarisk windrow plant communities. Table 2.25 lists the BSA vegetation communities and their total acreages.

Table 2.25: Vegetation/Land Use Within the Biological Study Area

Vegetation/Land Use	Total within the BSA (Acres)
Ruderal/Saltbush scrub	149.3
Developed	102.9
Sonoran creosote bush scrub	11.3
Tamarisk windrows	3.9

Source: Natural Environment Study, October 2011; Natural Environment Study Amendment October 2017

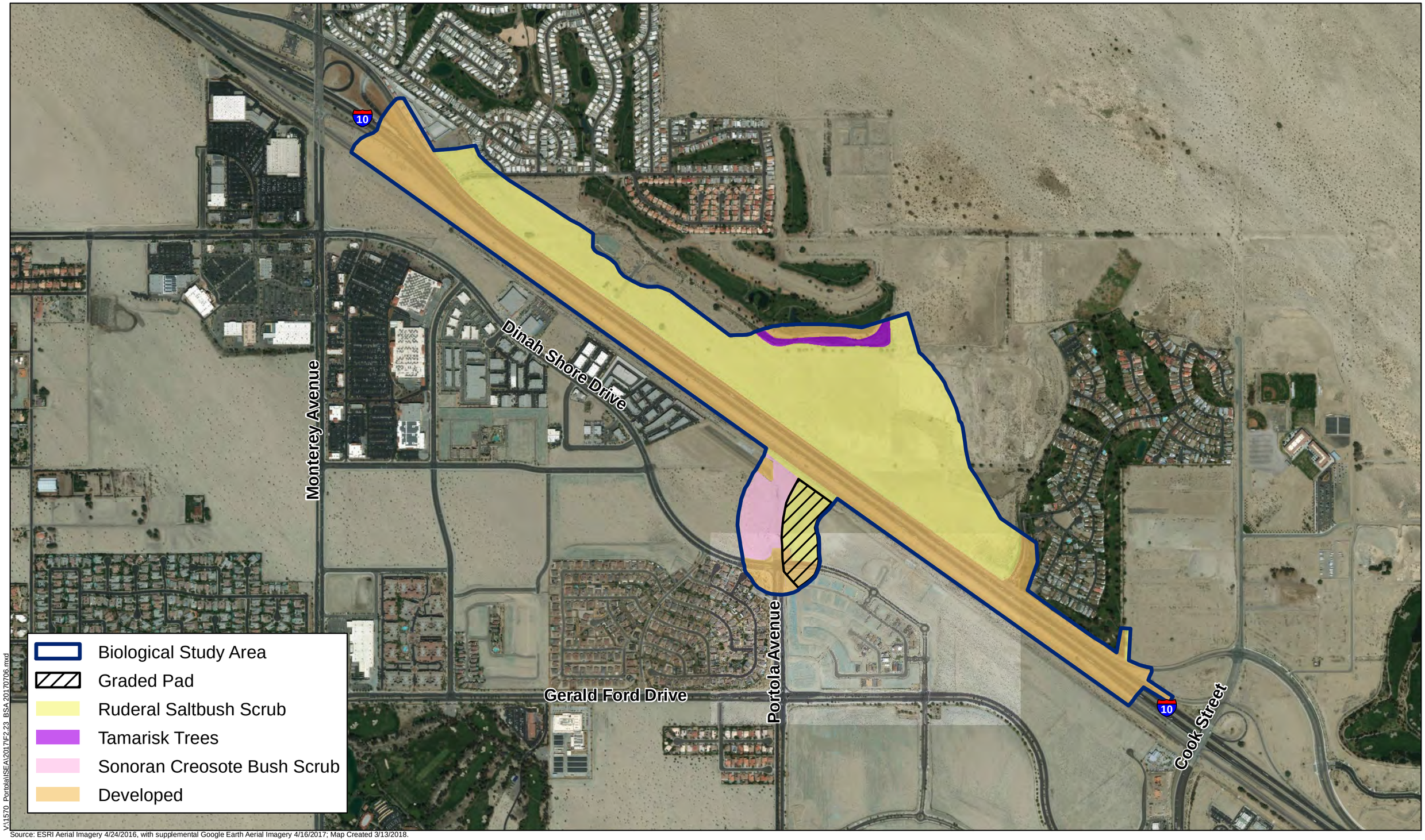

FIGURE 2.23
Biological Study Area and Vegetation

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Vegetation in the BSA does not include any sensitive plant communities. However, the ornamental trees and shrubs within the BSA may serve as roosting and nesting habitat for raptors and other migratory bird species. Refer to the Animal Species subsection below for discussion of potential project impacts on migratory bird species.

Ruderal/Disturbed

The majority of the vegetation within the BSA consists of the ruderal/saltbush scrub plant community. The vegetation in this community ranges from completely ruderal plant species in highly disturbed areas to less recently disturbed areas with a mixture of ruderal and saltbush scrub plant species. Dominant plant species identified in this plant community include Sahara mustard (*Brassica tournefortii*), redstem stork's bill (*Erodium cicutarium*), common Mediterranean grass (*Schismus barbatus*), and fourwing saltbush (*Atriplex canescens*).

Developed

Developed areas within the BSA include existing I-10 and associated infrastructure, UPRR and its associated infrastructure, residential and commercial development, golf courses, and utility easements which are generally maintained to remove vegetation.

Sonoran Creosote Bush Scrub

The Sonoran creosote bush scrub is present within the southwest portion of the BSA. This plant community has not been directly affected by land use development activities. Dominant plan species identified in this plant community include creosote bush (*Larrea tridentata*), dyebush (*Psorothamnus emoryi*), Sahara mustard, and Mediterranean grass.

Tamarisk Windrows

This community is found in the northern portion of the BSA in areas where tamarisk windrows border historic agricultural fields and in the detention basin that borders the Tri-Palm Country Club golf course. The tamarisk tree windrows have been removed in the last 7 years but are starting to grow back in these areas and are dominated by athel (*Tamarix aphylla*). The tamarisk trees growing in the detention basin south of the golf course consist of Mediterranean tamarisk (*Tamarix ramosissima*).

Wildlife Corridors

No wildlife corridors are located within the BSA. The proposed project site does not lie within a CVMSHCP designated conservation area or wildlife corridor, and is not anticipated to have substantial impacts related to habitat fragmentation and regional wildlife movement. The proposed project site does not serve as a regional wildlife corridor due to its proximity to existing development.

Environmental Consequences

Build Alternatives 2 and 3

Impacts to plant communities would be the same for both proposed Build Alternatives. Plant communities present within the BSA, excluding developed areas, include Sonoran creosote bush scrub, ruderal/saltbush scrub, and tamarisk trees. The dominant plant community in the BSA is ruderal/saltbush scrub. None of these plant communities is considered to be a natural community of concern according to the California Natural Diversity Database. Because these communities are not communities of concern and have been heavily affected by current and historic land uses, project-related effects to these communities are not considered substantial.

No-Build Alternative

Since the No-Build Alternative does not include construction, no adverse impacts would occur to natural communities.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization and/or mitigation measures are proposed.

2.3.2 Wetlands and other Waters

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. 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 United States Environmental Protection Agency (U.S. EPA).

The USACE issues two types of 404 permits: General and Standard permits. There are two types of General permits: Regional permits and Nationwide permits. 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 Nationwide Permit may be permitted under one of USACE's Standard permits. There are two types of Standard permits: Individual permits and Letters of Permission. For Standard permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404(b)(1) Guidelines (U.S. EPA 40 Code of Federal Regulations [CFR] Part 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, this EO states that a federal agency, such as the FHWA and/or Caltrans, 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.

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCB) and the California Department of Fish and Wildlife (CDFW). In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or 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 would 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 would 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 additional details.

Affected Environment

This Wetlands and Other Waters section is a summary of the information provided in the Natural Environment Study prepared for the proposed project in October of 2011. Hydrologic drainage features, consisting of one concrete-lined drainage ditch and four detention basins (see Figure 2.24), were documented during the May 2011 field survey for the Natural Environment Study. During the April 2017 survey associated with the Natural Environment Study Amendment, no changes were observed to the 2011 Natural Environment Study.

Neither the concrete-lined drainage ditch and associated detention basin located southwest of the proposed new interchange nor the detention basin located south of the golf course in the northern portion of the BSA would be affected by the proposed project. Although these hydrologic features are not expected to be affected, a brief description of them is provided below.

The concrete-lined drainage ditch and associated detention basin located southwest of the proposed new interchange appear to catch stormwater runoff from adjacent commercial development. The basin and the channel are considered isolated because they do not connect to a traditional navigable waterway (e.g., Whitewater River). These features both lack characteristics of a natural stream or lake such as riparian vegetation or connectivity with other hydrophytic habitats.

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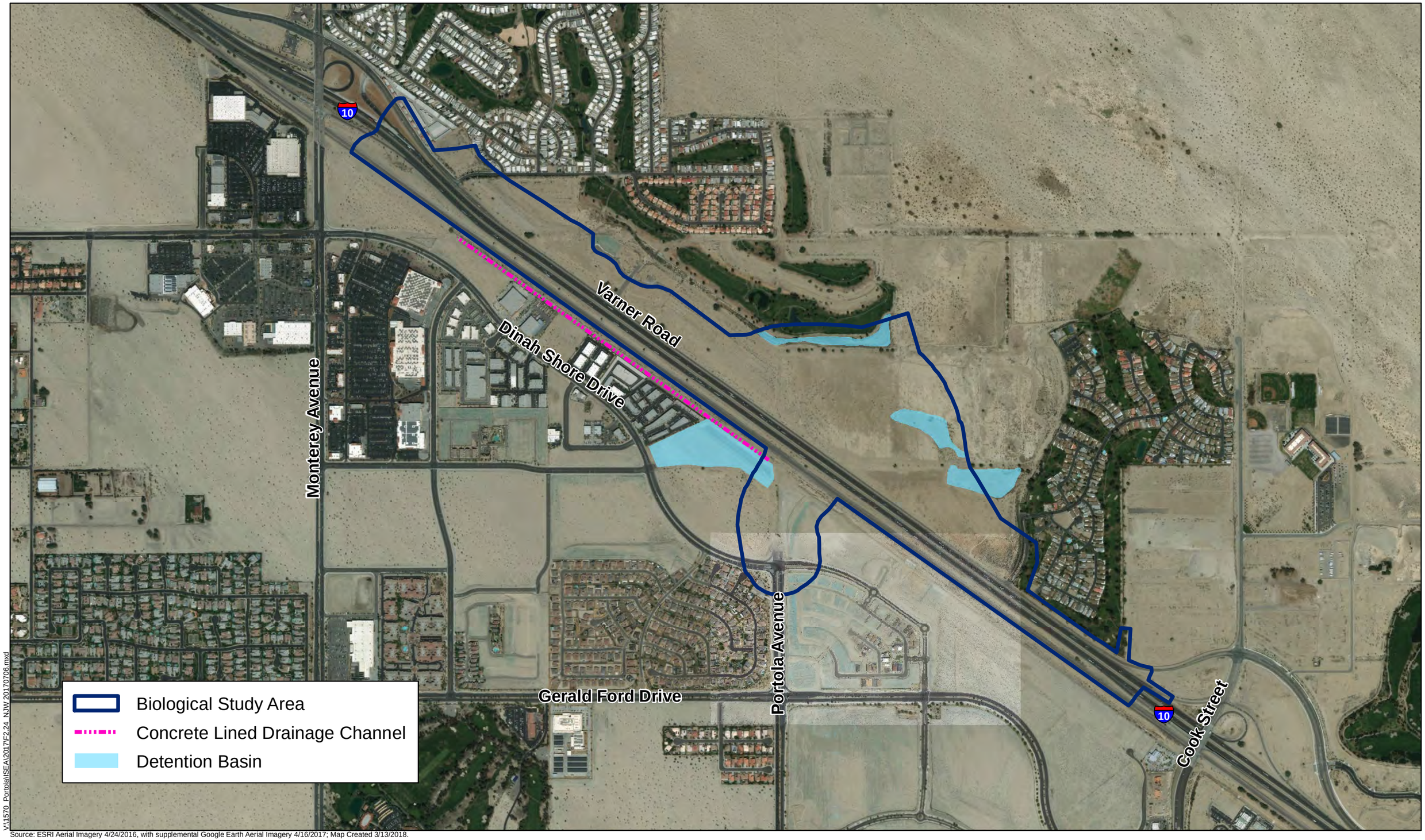

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Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

0 500 1,000 1,500 2,000 2,500 Feet

FIGURE 2.24
Non-Jurisdictional Waters

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The detention basin that borders the southern edge of the golf course in the northern portion of the BSA catches runoff from the adjacent golf course. Ponded water was noted in the basin during the May 2011 field survey. This basin is an isolated water feature with some disturbed hydrophytic vegetation (e.g., tamarisk trees).

There are two detention basins in the northwest portion of the BSA. The purpose of the detention basins is not clear, but they may have been created to support past agricultural practices or to detain water for the nearby golf course development located on the east side of the BSA. Currently, none of these detention basins appears to have any connection with adjacent golf course runoff. Based on rainfall information and aerial photograph review, these two detention basins do not appear to support the detention of water for any current land use practices. These basins are also considered isolated and would therefore not be subject to the regulatory authority of the RWQCB or USACE.

Environmental Consequences

Build Alternatives 2 and 3

The concrete-lined drainage ditch and three of the four retention basins identified within the BSA are not anticipated to be affected by either Alternative 2 or 3. As discussed in the Hydrology and Floodplains section of this chapter (Section 2.2.1), to address the potential increase in water surface elevation, the project design was revised to incorporate a detention basin and flood channel along the north side of Varner Road under both build alternatives. The proposed fill grading north of I-10 would affect the lands easterly drainage path into the existing retention basin located at the eastern end of the project. Grading necessary to realign Varner Road, east of Portola Avenue would fill in approximately 50,000 cubic feet of the existing retention basin. To compensate for this, two infiltration basins located south of the existing basin would be constructed to accommodate discharges impacted by the realigned Varner Road. An additional infiltration basin would be installed along the northwestern quadrant to handle supplemental drainage flows. Figure 2.24 shows the location of the existing water features. All of the existing water features are isolated drainages and basins associated with storm water runoff. These features are not considered jurisdictional waters of the U.S. or State and therefore impacts to this detention basin would not require permit authorization from the U.S. Army Corps of Engineers. With the relocation of this basin to an alternative location, there would be no anticipated net loss of hydraulic capacity and no impacts to wetlands or other waters.

No-Build Alternative

The No-Build Alternative does not propose any construction or other disturbance in the project area. Therefore, the No-Build Alternative would not result in adverse impacts related to wetlands and other waters of the United States.

Avoidance, Minimization, and/or Mitigation Measures

There are no impacts to wetlands or other water features. No avoidance, minimization and/or mitigation measures are required. However, the following two measures are included as design features and/or best management practices to further reduce the possibility of environmental impacts relating to erosion and water quality.

BIO-1: Prior to beginning construction activities, the Construction Contractor will be required to prepare a Stormwater Pollution Prevention Plan (SWPPP). This plan will be reviewed for compliance with and inclusion of measures in the Caltrans SWPPP Preparation

Guidance Document. The measures in the SWPPP must also satisfy stormwater management practices acceptable to the Colorado River Basin RWQCB, the City of Palm Desert, and the County of Riverside. Typical measures to prevent wind and water erosion include applications of water or dust palliatives during earthwork activities, flattened cut and fill slopes, sandbags, contour grading, no work during high-wind days, haul road sealing, and others.

BIO-2: To prevent erosion and effects of surface runoff on water quality, the design of the proposed project will include erosion and sedimentation control features. Such features include the installation of replacement landscaping, construction of slopes at 1:4 or flatter, benched cut slopes, placement of straw on fill slopes to minimize erosion, and improvement of drainage facilities to handle excess runoff.

2.3.3 Plant Species

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 2.3.5 in this document for detailed information about these species.

This section of the document discusses all the 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 United States Code 16 (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. Caltrans 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), CA Public Resources Code , Sections 2100-21177.

Affected Environment

The analysis of potential impacts of the I-10/Portola Avenue New Interchange Project on plant species is based on the Natural Environment Study prepared for the project in October of 2011 and the Natural Environment Study Amendments prepared for the project in October of 2017.

The presence or absence of special status species depends upon many factors including habitat conditions, behavior, seasonal activity, and seasonal occurrence. It is often difficult to ascertain the presence or absence of a species at any particular moment in time. Thus, the presence, or the likelihood of the presence, of special status species is based on the following criteria (in descending order, from species determined to be present to those considered potentially present): (1) direct observation of the species or its sign in the study area or immediate vicinity during surveys conducted for this study or reported in previous biological studies; (2) sighting by other qualified observers; (3) record reported by the Natural Diversity Data Base (NDDB) published by CDFG; (4) presence or location of specific species lists provided by private groups (e.g., CNPS);

and/or (5) the study area lies within known distribution of a given species and contains appropriate habitat.

Table 2.26 provides a list of all plant species that were identified during the botanical surveys of the BSA.

Table 2.26: Plant Species Observed within the Biological Study Area

Scientific Name	Common Name
MAGNOLIOPHYTA: MAGNOLIOPSIDA	**DICOT FLOWERING PLANTS**
Asteraceae	**Sunflower family**
Ambrosia acanthicarpa	Annual bur-sage
Bebbia juncea	Sweetbush
Conyza canadensis	Canadian horseweed
Dicoria canescens	Bugseed
Encelia farinosa	Brittlebush
Geraea canescens	Hairy desert sunflower
Helianthus annuus	Common sunflower
Palafoxia arida var. *arida*	Desert palafoxia
Silybum marianum (non-native species)	Milk thistle
Stephanomeria exigua	Small wreath-plant
Cryptantha angustifolia	Panamint cryptantha
Tiquilia plicata	Fanleaf crinklemat
Brassicaceae	**Mustard family**
Brassica tournefortii (non-native species)	Sahara mustard
Chenopodiaceae	**Saltbush family**
Atriplex canescens	Fourwing saltbush
Atriplex lentiformis	Big saltbush
Chenopodium murale (non-native species)	Nettleleaf goosefoot
Salsola tragus (non-native species)	Russian thistle
Suaeda nigra	Bush seepweed
Euphorbiaceae	**Spurge family**
Chamaesyce sp.	Spurge
Croton californicus	California croton
Fabaceae	**Pea family**
Parkinsonia aculeata (non-native species)	Mexican palo verde
Prosopis glandulosa var. torreyana	Honey mesquite
Psorothamnus emoryi	Dyebush
Geraniaceae	**Geranium family**
Erodium cicutarium (non-native species)	Redstem stork's bill
Nyctaginaceae	**Four-o'clock family**
Abronia villosa var. *villosa*	Desert sand verbena
Abronia villosa var. *aurita*	Chaparral sand verbena

Table 2.26: Plant Species Observed within the Biological Study Area (continued)

Scientific Name	Common Name
Plantaginaceae	**Plantain family**
Plantago ovata	Desert Indianwheat
Solanaceae	**Nightshade family**
Datura sp.	Datura
Tamaricaceae	**Tamarisk family**
Tamarix aphylla (non-native species)	Athel
Tamarix ramosissima (non-native species)	Mediterranean tamarisk
Poaceae	**Grass family**
Schismus barbatus (non-native species)	Common Mediterranean grass
Zygophyllaceace	**Caltrop family**
Larrea tridentata	Creosote bush

Source: Natural Environment Study, October 2011, Natural Environment Study Amendment, October 2017

Habitat for six special status plant species was identified within the proposed project area. One of these six species, Coachella Valley milkvetch, is federally listed as endangered and is discussed in the Threatened and Endangered Species subsection. The remaining five plant species are not federally/state listed, but are designated rare by CNPS. These five plant species are Chaparral sand verbena (*Abronia villosa* var*. aurita),* Arizona spurge (*Chamaesyce arizonica*), flat-seeded spurge (*Chamaesyce platysperma*), glandular ditaxis (*Ditaxis claryana*), and California marina (*Marina orcuttii* var. *orcuttii*). Chaparral sand verbena habitat consists of sandy areas in chaparral and coastal sage scrub and improbably in desert dunes or other sand areas below 1,600 feet elevation. Arizona spurge and flat-seeded spurge habitat consists of sandy soils at 200 to 1,000 feet elevation in Sonoran Desert scrub. Glandular ditaxis habitat consists of sandy washes and alluvial fans in Sonoran desert scrub at 100 to 3,300 feet elevation. California marina habitat consists of rocky soils and gravelly hillsides in pinyon and juniper woodlands, Sonoran desert scrub, and chaparral at 3,400 to 3,800 feet elevation.

Environmental Consequences

Build Alternatives 2 and 3

Chaparral sand verbena

Three specimens of chaparral sand verbena were detected within the BSA during the April 11, 2017 biological field investigations. While all of the observed specimens remain outside of the project's work limits, project activities have the potential to disturb future individuals of this annual species. Implementation of minimization and avoidance measures **BIO-1** and **BIO-2** protecting chaparral sand verbena and use of Caltrans Standard BMPs, would minimize potential project impacts to the species to the greatest extent practicable; therefore, the project would not impact the viability of the overall population.

Arizona spurge

Arizona spurge was not detected within the BSA during biological field investigations. Potential habitat for this species was identified within the BSA but was determined to be only marginally suitable due to the highly disturbed site conditions as a result of current and historic land use practices. Due to the disturbed and fragmented conditions of the existing potentially suitable

habitat, Arizona spurge is not likely to occur in the BSA and no impacts under either Build Alternative to this species are anticipated.

Flat-seeded spurge

Flat-seeded spurge was not detected within the BSA during biological field investigations. Potential habitat for this species was identified within the BSA but was determined to be only marginally suitable due to the highly disturbed site conditions as a result of current and historic land use practices. Due to the disturbed and fragmented conditions of the existing potentially suitable habitat, Flat-seeded spurge is not likely to occur in the BSA and no impacts under either Build Alternative to this species are anticipated.

Glandular ditaxis

Glandular ditaxis was not detected within the BSA during biological field investigations. Potential habitat for this species was identified within the BSA but was determined to be only marginally suitable due to the highly disturbed site conditions as a result of current and historic land use practices. Due to the disturbed and fragmented conditions of the existing potentially suitable habitat, glandular ditaxis is not likely to occur in the BSA and no impacts under either Build Alternative to this species are anticipated.

California marina

California marina was not detected within the BSA during biological field investigations. Potential habitat for this species was identified within the BSA but was determined to be only marginally suitable due to the highly disturbed site conditions as a result of current and historic land use practices. Due to the disturbed and fragmented conditions of the existing potentially suitable habitat, California marina is not likely to occur in the BSA and no impacts under either Build Alternative to this species are anticipated.

No-Build Alternative

The No-Build Alternative does not propose any construction or other disturbance in the project area. No adverse impacts to special status plant species would occur.

Avoidance, Minimization, and/or Mitigation Measures

The following minimization measure will be implemented to minimize impacts associated with sensitive plant species:

BIO-3: An ESA has been designated in proximity to the 2017 observed chaparral sand verbena population. Prior to ground disturbance, high visibility ESA fencing must be installed under the direction of the project biologist. See Figure 2.25 Special-Status Species Observation for ESA location.

BIO-4: The spring (March-May) immediately prior to construction, the project biologist must perform pre-construction blooming surveys for chaparral sand verbena within the limits of disturbance. Any observed chaparral sand verbena must be designated with high visibility ESA fencing with a minimum 1.5 foot buffer between the fencing and observed specimens. If an individual is unable to be avoided, the ripe seed must be collected by the project biologist and immediately dispersed at a suitable location, such as the Thousand Palms Conservation Area. Seed dispersal would be made in coordination with the CVCC.

2.3.4 Animal Species

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 Section 2.3.5 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

Affected Environment

The analysis of potential impacts of the I-10/Portola Avenue New Interchange Project on animal species is based on the Natural Environment Study (October 2011) and the Natural Environment Study Amendment (October 2017). Table 2.27 provides a list of the animal species observed during field surveys of the BSA.

Table 2.27: Animal Species Observed Within the Biological Study Area

Scientific Name	Common Name
REPTILIA	**REPTILES**
Iguanidae	**Iguanid Lizards**
Dipsosaurus dorsalis	Desert Iguana
Phrynosomatidae	**Phrynosomatid Lizards**
Callisaurus draconoides	Zebra-tailed lizard
Uta stansburiana	Common side-blotched lizard
Teiidae	**Whiptails**
Aspidoscelis tigris	Western whiptail
AVES	**BIRDS**
Anatidae	**Swans, Geese, and Ducks**
Anas platyrhynchos	Mallard
Odontophoridae	**New World Quail**
Callipepla gambelii	Gambel's quail

Table 2.27: Animal Species Observed Within the Biological Study Area (continued)

Scientific Name	Common Name
Accipitridae	**Kites, Hawks, and Eagles**
Buteo jamaicensis	Red-tailed hawk
Falconidae	**Falcons**
Falco sparverius	American kestrel
Charadriidae	**Plovers and Lapwings**
Charadrius vociferus	Killdeer
Columbidae	**Pigeons and Doves**
Columba livia (non-native species)	Rock pigeon
Zenaida macroura	Mourning dove
Trochilidae	**Hummingbirds**
Calypte costae	Costa's hummingbird
Tyrannidae	**Tyrant Flycatchers**
Sayornis saya	Say's phoebe
Corvidae	**Crows and Ravens**
Corvus corax	Common raven
Remizidae	**Verdin**
Auriparus flaviceps	Verdin
Parulidae	**Wood Warblers**
Wilsonia pusilla	Wilson's warbler
Fringillidae	**Finches**
Carpodacus mexicanus	House finch
Carduelis psaltria	Lesser goldfinch
MAMMALIA	**MAMMALS**
Leporidae	**Rabbits and Hares**
Lepus californicus deserticola	Black-tailed jackrabbit
Sciuridae	**Squirrels**
Spermophilus tereticaudus chlorus	Palm Springs round-tailed ground squirrel
Heteromyidae	**Pocket Mice and Kangaroo Rats**
Dipodomys sp.	Kangaroo rat
Canidae	**Foxes, Wolves and Dogs**
Canis latrans	Coyote

Source: Natural Environment Study, October 2011, Natural Environment Study Amendment, May 2017

Habitat for 13 special status animal species was identified as potentially present within the proposed project area. These species are red diamond rattlesnake (*Crotalus ruber*), coast horned lizard (*Phyrnosoma blainvillii [coronatum])*, Flat-tail horned lizard (*Phynosoma mcallii),* loggerhead shrike (*Lanius ludovicianus),* burrowing owl (*Athene cunicularia hypugaea*), Prairie falcon (*Falco mexicanus*), Black-tailed gnatcatcher (*Polioptila melanura*), Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), Pallid San Diego pocket mouse (*Chaetodipus fallax pallidus*), Western yellow bat (*Lasiurus xanthinus*), Pocketed free-tailed bat (*Nyctinomops femorosaccus*), Palm Springs pocket mouse (*Perognathus longimembris bangsii*), Palm Springs round-tailed ground squirrel (*Spermophilus tereticaudus chlorus*).

Four of these species, the Flat-tail horned lizard, Palm Springs round-tailed ground squirrel, loggerhead shrike, and burrowing owl were found to be present in the immediate vicinity of the BSA. These species are discussed in greater detail below. The other nine special status species have a low probability for occurrence within the BSA due to the disturbed and fragmented status of potentially suitable habitat. The project is not expected to have any adverse impacts to these nine species due to the highly disturbed site conditions as a result of current and historic practices.

Flat-Tail Horned Lizard

The flat-tail horned lizard was not a species of concern during the 2007 and 2011 surveys, but was a covered species under the CVMSHCP during the 2017 survey, which does not require further study of this species. The species was not observed during the April 2017 field survey. However, a known population of the species occurs just north of project, approximately 0.5 miles from the BSA within the Thousand Palms Conservation Area. The BSA contains potentially suitable sandy soils and given the proximity of the Thousand Palms Conservation Area, the species has potential to occur.

Palm Springs Round-Tailed Ground Squirrel

The Palm Springs round-tailed ground squirrel is a covered species under the CVMSHCP, which does not require further study of this species. The Palm Springs round-tailed ground squirrel was not detected during focused surveys conducted for the species as part of the 2007 NES nor during the April 11, 2017 field survey; however, it was observed vocalizing within and in the immediate vicinity of the BSA during the May 2011 field survey. The observations were made on the north end of the BSA in ruderal/saltbush scrub habitat. This species may also utilize the Sonoran creosote bush scrub community in the BSA. Figure 2.25 shows the locations of the observations of the Palm Springs round-tailed ground squirrel.

Loggerhead Shrike

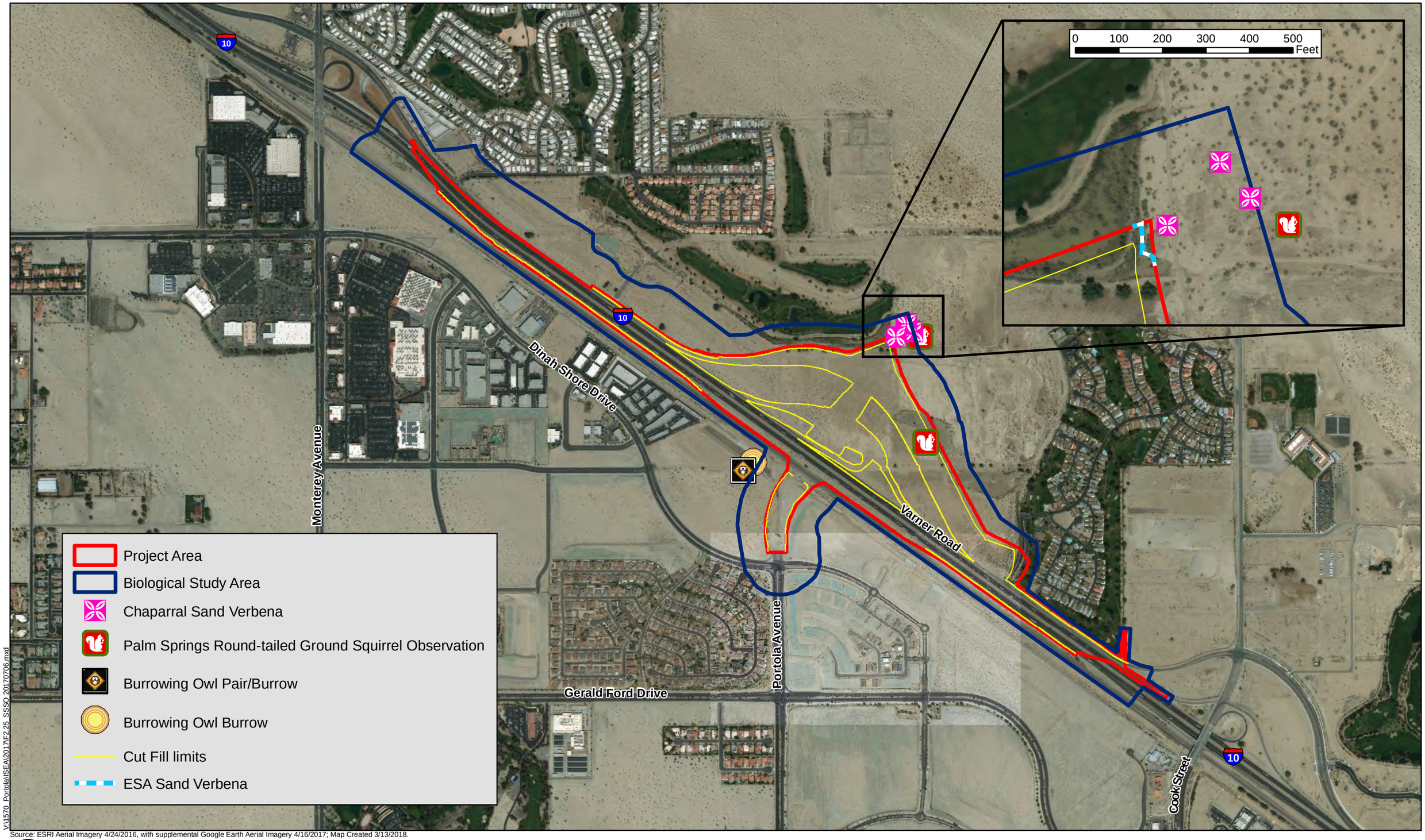
The Loggerhead shrike was not a species of concern during the 2007 and 2011 surveys, but was a covered species under the CVMSHCP during the 2017 survey, which does not require further study of this species. The loggerhead shrike was not observed during the April 2017 field surveys. However, the species is known to occur within the project vicinity, with the nearest CNDDB occurrence approximately 2 miles from the BSA. The BSA contains disturbed ruderal/Saltbush Scrub which is potentially suitable for the species foraging and nesting.

Burrowing Owl

The burrowing owl is a CVMSHCP covered species, and further study is not required. This species was detected within 1,000 feet of the BSA during 2007 surveys and was observed in the immediate vicinity of the BSA during the June 30, 2011 field survey. Figure 2.25 shows the locations where burrowing owls were observed. This is a highly mobile and migratory species which likely uses the BSA during foraging activities. Burrowing owl individuals could potentially move into the proposed project area prior to construction and use the site for nesting and/or foraging activities. The burrowing owl is a CDFW species of special concern and protected by Sections 3503, 3505.5, and 3800 of the California Fish and Game Code and by the international Migratory Bird Treaty Act (MTBA) of 1918 (16 USC 703-711).

Migratory Birds

The BSA provides potentially suitable habitat for numerous migratory bird species protected under the Migratory Bird Treaty Act of 1918. Suitable habitat includes landscaping trees as well as open native habitat for birds that nest on the ground such as the burrowing owl.



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Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

FIGURE 2.25
Special-Status Species Observations

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Environmental Consequences

Build Alternatives 2 and 3

Flat Tail Horned Lizard

Although no flat-tail horned lizard was observed during the biological surveys, the species could occur within the project vicinity. Project activities within the disturbed ruderal/Saltbush Scrub community could disturb the species. However, the majority of the BSA is disturbed and any impacts to the species are not anticipated to impact the viability of the overall population. Impacts to the viability of the flat-tail horned lizard population are not anticipated; consequently, compensatory mitigation is not proposed. As discussed above, the Flat Tail Horned Lizard is a CVMSHCP covered species and as a result, although avoidance and minimization measures will be implemented, potential impacts to habitat are addressed based on this species being covered by the CVMSHCP.

Palm Springs Round-Tailed Ground Squirrel

Impacts to the Palm Springs round-tailed ground squirrel would result from the loss of ruderal/saltbush scrub and Sonoran creosote bush scrub habitats that would be affected by the project. Effects to the Palm Springs round-tailed ground squirrel are not considered substantial through implementation of avoidance and mitigation measures, and through compliance with the CVMSHCP.

Loggerhead Shrike

Considering the project would remain in compliance with the Migratory Bird Treaty Act and CDFW fish and game codes 3503 Birds and Raptors & 3513 Migratory Birds, no direct impacts to the species as a result of the project is anticipated. Implementation of minimization and avoidance measures protecting nesting birds and use of Caltrans Standard BMPs would minimize project impacts to loggerhead shrike to the greatest extent practicable; therefore, the project will not impact the viability of the overall population. As discussed above, the loggerhead shrike is a CVMSHCP covered species and as a result, although avoidance and minimization measures will be implemented, potential impacts to habitat are addressed based on this species being covered by the CVMSHCP.

Burrowing Owl

Project construction would contribute to the incremental loss of potentially suitable burrowing owl habitat in the region. The burrowing owl may occur on the proposed project site. Impacts to the species could occur in the form of direct mortality (particularly in destruction of nests and mortality of young if construction occurs during the breeding season) or habitat loss. Direct effects to this species will be avoided through avoidance and minimization measures discussed in the section below. As discussed above, the burrowing owl is a CVMSHCP covered species and as a result, although avoidance and minimization measures will be implemented, potential impacts to habitat are addressed based on this species being covered by the CVMSHCP.

Migratory Birds

The project has the potential to affect any nesting migratory birds that may be present in the BSA. Potential effects to nesting raptors and other migratory bird species may occur during the bird breeding season (February 1 – August 31). If trees are removed with active bird nests, direct mortality to adults, juveniles, or eggs can occur and ground nests and burrows can be destroyed during ground disturbing activities. Impacts can be avoided by conducting a focused bird survey for nesting birds prior to removal of trees and/or by removing vegetation outside of the bird nesting

season. Exclusionary buffers should be used during construction if nests are found within 100 feet of the construction limits. Avoidance and minimization measures are discussed further in the section below.

Coachella Valley Multiple Species Habitat Conservation Plan

The proposed project is a Covered Activity as described in CVMSHCP Section 7.2.3 Regional Road Projects. The proposed project is not within a conservation area, so measures identified in Section 4.4 of the CVMSHCP do not apply specifically to this project.

No-Build Alternative

The No-Build Alternative does not propose any construction or other disturbance in the project area. Therefore, the No-Build Alternative will not result in any adverse impacts related to special status animal species.

Avoidance, Minimization, and/or Mitigation Measures

In addition to compliance with the CVMSHCP, the following project specific conservation measures will be implemented to avoid and minimize potential impacts to special status animal species:

BIO-5: Prior to clearing or construction, highly visible barriers (such as orange construction fencing) will be installed around ruderal/saltbush scrub and Sonoran creosote bush scrub plant communities adjacent to the project footprint to designate Environmentally Sensitive Areas (ESAs) to be preserved. No grading or fill activity of any type will be permitted within these ESAs. In addition, heavy equipment, including motor vehicles, will not be allowed to operate within the ESAs. All construction equipment will be operated in a manner so as to prevent accidental damage to nearby preserved areas. No structure of any kind, or incidental storage of equipment or supplies, will be allowed within these protected zones. Silt fence barriers will be installed at the ESA boundary to prevent accidental deposit of fill material in areas where vegetation is adjacent to planned grading activities.

BIO-6: All equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities will occur in developed areas or habitat areas unsuitable for the Palm Springs round-tailed ground squirrel.

BIO-7: A preconstruction focused survey will be required to verify burrowing owl species absence from the proposed project site prior to grading. If the burrowing owl is determined to be present, passive relocation would be required to avoid effects to the burrowing owl. There are two survey periods for the burrowing owl: spring and winter. Spring (or breeding) surveys are conducted between February 1 and August 31. Winter surveys are conducted between December 1 and January 31. If an owl is found to be present during the breeding season, no ground disturbance (within the occupied area) can begin until after the breeding season (i.e., after August 31) and/or until the owls have completed their nesting activities. Relocation efforts must be coordinated with the California Department of Fish and Wildlife.

BIO-8: To avoid potential effects to nesting raptors and any other nesting birds; vegetation clearing shall be completed outside of bird breeding season (February 1 through August 31). If vegetation clearing is not conducted outside the bird breeding season, pre-construction surveys will be required to ensure effects to nesting birds are avoided. If

nesting raptors or nesting birds are discovered during the pre-construction survey, avoidance measures will be required in coordination with CDFW.

BIO-9: In accordance with the CVMSHCP Section 6.6.1, to mitigate for impacts as a result of the proposed project, CVAG shall contribute $30 million from Measure A or other funds toward land acquisition, and the Monitoring Program, the Management Program, and Adaptive Management.

BIO-10: To allow ground dwelling wildlife enough time to escape initial clearing and grubbing activities, equipment used during initial clearing and grubbing must be operated at speeds no greater than 3 miles per hour.

2.3.5 Threatened and Endangered Species

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), 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, a Letter of Concurrence and/or documentation of a No Effect finding. 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 2081 of the 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 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 the CDFW. For species listed under both the FESA and CESA requiring a Biological Opinion under Section 7 of the 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.

Affected Environment

The analysis of potential impacts of the I-10/Portola Avenue New Interchange Project on threatened and endangered species is based on the Natural Environment Study (October 2011) and the Natural Environment Study Amendment (October 2017).

On March 13, 2018, an updated list of special status species that have potential to occur within the BSA was obtained from the USFWS (see Chapter 3 – Resource Agency Correspondence). A brief discussion of each of the species provided in this letter is included below:

Least Bell's Vireo (*Vireo bellii pusilus*)

Least Bell's Vireo breeds entirely within California and northern Baja California. Breeding habitat consists of dense riparian vegetation associated with intermittent or perennial waterways. No suitable habitat is present in the BSA for this species.

Southwestern Willow Flycatcher (*Empidonax traillii extimus*)

Southwestern Willow Flycatcher breeds in the southwestern U.S. and northwestern Mexico areas. Breeding habitat consists of dense riparian vegetation associated with intermittent or perennial waterways. No suitable habitat is present in the BSA for this species.

Desert Pupfish (*Cyprinodon macularious*)

The Desert Pupfish, in California, is found in the Salton Sea and some of its tributaries, favoring desert backwater areas, springs, streams and pools. No suitable habitat is present in the BSA for this species.

Coachella Valley Milk-Vetch (*Astragalus lentiginosus var. coachellae*)

Within the BSA, potential habitat is present for Coachella Valley milk-vetch, which is federally-listed as endangered but not state-listed. It was determined that all other federally-listed species (March 13, 2018 USFWS Endangered Species List) and state-listed species do not have suitable habitat present within the BSA.

A focused survey for the Coachella Valley milk-vetch was conducted in May 2006 in order to determine the presence/absence of this species. The BSA was surveyed by walking parallel transects, approximately 50 feet wide, generally north to south, in potentially suitable habitat areas. Although habitat for Coachella Valley milk-vetch is present, this species was determined to be absent from the BSA based on the focused survey. The May 2011 focused surveys confirmed that no Coachella Valley milk-vetch specimens are located within the BSA. No Coachella Valley milk-vetch was observed during the April 2017 survey.

Triple-Ribbed Milk-Vetch (*Astragalus tricarinatus*)

The Triple-Ribbed Milk-Vetch is found in metamorphic rock outcrops weathering into gravelly soil in semi-desert chaparral or at the edges of boulder-strewn desert washes and adjacent slopes. It is most commonly found in Joshua Tree woodland and Sonoran desert scrub habitat. No suitable habitat is present in the BSA for this species.

Casey's June Beetle (*Dinacoma caseyi*)

Casey's June beetle is associated with alluvia sediments, typically in Carsitas gravelly sand, riverwash, or Carsitas cobbly sand, and is only known to be found at the base of the Santa Rosa Mountains near Palm Springs. No suitable habitat is present in the BSA for this species.

Peninsular Bighorn Sheep (*Ovis canadensis nelsoni*)

The Peninsular Bighorn Sheep lives on open desert slopes from San Goronio Pass south into Mexico. Optimal habitat includes steep-walled canyons and ridges bisected with waterways, up to 4,000 feet above mean sea level. No suitable habitat is present in the BSA for this species.

Coachella Valley Fringe-Toed Lizard (*Uma inornata*)

The Coachella Valley Fringe-Toed Lizard lives among fine, loose, windblown sand (dunes), interspersed with hardpan and widely spaces desert scrubs; known only from the Coachella Valley. The high level of habitat disturbance and fragmentation in and around the BSA does not provide suitable habitat for this species. In addition, a focused survey conducted for the species in 2007 determined the species to be absent from the BSA.

Desert Tortoise (*Gopherus agassizii*)

The Desert Tortoise is historically found throughout most of the Mojave and Sonoran Deserts in Southern California, Arizona, Nevada and Utah. It is most commonly found in creosote bush scrub, saltbush scrub, thornscrub, and Joshua Tree woodland. The high level of habitat disturbance and fragmentation in and around the BSA does not provide suitable habitat for this species.

Environmental Consequences

Least Bell's Vireo (*Vireo bellii pusilus*)

No suitable habitat for Least Bell's Vireo is present in the BSA; accordingly, Caltrans has determined the proposed project would have No Effect on the species.

Southwestern Willow Flycatcher (*Empidonax traillii extimus*)

No suitable habitat for Southwestern Willow Flycatcher is present in the BSA; accordingly, Caltrans has determined the proposed project would have No Effect on the species.

Desert Pupfish (*Cyprinodon macularious*)

No suitable habitat for Desert Pupfish is present in the BSA; accordingly, Caltrans has determined the proposed project would have No Effect on the species.

Coachella Valley Milk-Vetch (*Astragalus lentiginosus var. coachellae*)

Since the BSA does not contain Coachella Valley milk-vetch, Caltrans has determined that the proposed project would have No Effect on the species.

Triple-Ribbed Milk-Vetch (*Astragalus tricarinatus*)

No suitable habitat for Triple-Ribbed Milk-Vetch is present in the BSA; accordingly, Caltrans has determined the proposed project would have No Effect on the species.

Casey's June Beetle (*Dinacoma caseyi*)

No suitable habitat for Casey's June Beetle is present in the BSA; accordingly, Caltrans has determined the proposed project would have No Effect on the species.

Peninsular Bighorn Sheep (*Ovis canadensis nelsoni*)

No suitable habitat for Peninsular Bighorn Sheep is present in the BSA; accordingly, Caltrans has determined the proposed project would have No Effect on the species.

Coachella Valley Fringe-Toed Lizard (*Uma inornata*)

Lack of suitable habitat and a focused survey determined that the Coachella Valley Fringe-Toed Lizard is not present in the BSA; accordingly, Caltrans has determined the proposed project would have No Effect on the species. Additionally, as discussed previously, the proposed project is a covered project as identified in Section 7.2.3 of the CVMSHCP.

Desert Tortoise (*Gopherus agassizii*)

Lack of suitable habitat and a focused survey determined that the desert tortoise is not present in the BSA; accordingly, Caltrans has determined the proposed project would have No Effect on the species.

Coachella Valley Multiple Species Habitat Conservation Plan

The proposed project is a Covered Activity as described in CVMSHCP Section 7.2.3 Regional Road Projects. The proposed project is not within a conservation area, so measures identified in Section 4.4 of the CVMSHCP do not apply specifically to this project.

Avoidance, Minimization, and/or Mitigation Measures

No measures are required.

2.3.6 Invasive Species

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.

Affected Environment

Highway corridors provide opportunities for the movement of invasive species through the landscape. Invasive plants can be moved from site to site during spraying and mowing operations. Weed seed can be inadvertently introduced into the corridor on equipment during construction and through the use of mulch, imported soil or gravel, and sod. Some invasive plant species might be deliberately planted in erosion control, landscape, or wildflower projects. Highway rights-of-way provide ample opportunity for weeds in adjacent land to spread along corridors that, on a national scale, span millions of miles of highway.

Five exotic plants on the California Exotic Plant Council’s Invasive Plant Inventory were identified as occurring in the BSA. Each plant in the inventory is given an overall rating of high, moderate, or limited. Plants rated high have severe ecological impacts. Plants rated moderate have a substantial and apparent, but not severe, ecological impact. Plants rated limited are invasive, but

their ecological impacts are minor on a statewide level. The invasive species identified in the BSA with a high rating include Sahara mustard and Mediterranean tamarisk. No moderate rated invasive species were identified. Limited rated invasive species identified include Russian thistle (*Salsola tragus*), athel, and common Mediterranean grass.

The project has the potential to spread invasive species to adjacent native habitats in the BSA by the entering and exiting of construction equipment, the inclusion of invasive species in seed mixtures and mulch, and improper removal and disposal of invasive species so that seed is spread along the highway.

Environmental Consequences

Build Alternatives 2 and 3

Build Alternatives 2 and 3 have the potential to spread invasive species to adjacent native habitats in the BSA by construction equipment contaminated by invasive species, the inclusion of invasive species in seed mixtures and mulch, and by the improper removal and disposal of invasive species so that seed is spread within the project study area. Each of these potential impacts will be avoided or minimized through the incorporation of current standards and BMPs. A list of BMPs proposed to be used for this project is provided under Measure Bio-5, below. Landscaping or any erosion control for Alternatives 2 and 3 would not increase the spread of invasive species because none of the species on the California list of invasive species is currently used by Caltrans for erosion control or landscaping.

No-Build Alternative

The No-Build Alternative does not propose any construction or other disturbance in the project area. Therefore, the No-Build Alternative would result in no adverse impacts related to invasive species.

Avoidance, Minimization, and/or Mitigation Measures

The following minimization measure will be implemented to minimize impacts associated with invasive species:

BIO-11: Invasive species prevention:

- **BIO-11a:** During construction, the construction contractor shall inspect and clean construction equipment at the beginning of each day and prior to transporting equipment from one project location to another.
- **BIO-11b:** During construction, soil and vegetation disturbance will be minimized to the greatest extent feasible.
- **BIO-11c:** During construction, the construction contractor shall ensure that all active portions of the construction site are watered a minimum of twice daily or more often when needed due to dry or windy conditions, to prevent excessive amounts of dust.
- **BIO-11d:** During construction, the construction contractor shall ensure that all material stockpiled is sufficiently watered or covered to prevent excessive amounts of dust.
- **BIO-11e:** During construction, soil/gravel/rock will be obtained from weed-free sources.
- **BIO-11f:** Only certified weed-free straw, mulch, and/or fiber rolls will be used for erosion control.
- **BIO-11g:** After construction, affected areas adjacent to native vegetation will be revegetated with plant species native to the vicinity and approved by the District Biologist.

BIO-11h: After construction, all revegetated areas will avoid the use of species that have a high or moderate rating on California Invasive Plan Council Invasive Plant Inventory.

BIO-11i: Erosion control and revegetation sites will be monitored for 2 to 3 years after construction to detect and control the introduction/invasion of nonnative species.

BIO-11j: Eradication procedures (e.g., spraying and/or hand weeding) will be outlined should an infestation occur; the use of herbicides will be prohibited within and adjacent to native vegetation, except as specifically authorized and monitored by the District Biologist.

2.4 Cumulative Impacts

Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this 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.

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 National Environment Policy Act (NEPA) can be found in 40 Code of Federal Regulations (CFR), Section 1508.7 of the Council of Environmental Quality (CEQ) Regulations.

Methodology

The California Department of Transportation (Caltrans), in conjunction with the Federal Highway Administration and U.S. Environmental Protection Agency, developed a guidance document titled *Guidance for Preparers of Cumulative Impact Analysis* (2005). The cumulative impact analysis methodology utilized for this proposed project was based upon the eight-step process set forth in the guidance document. As specified in the guidance, if a project will not cause direct or indirect impacts to a resource, it would not contribute to a cumulative impact on that resource, and need not be evaluated with respect to potential cumulative impacts. As discussed earlier in Chapter 2 of this Environmental Document, the proposed project will not result in direct or indirect impacts to the following resources; accordingly, the cumulative analysis for this proposed project does not include any discussion of these resources:

- Cultural Resources
- Hydrology and Floodplains
- Paleontological Resources

- Natural Communities
- Wetlands and other Waters
- Plant Species

The resources listed below were evaluated in terms of whether the proposed project might contribute to cumulative impacts:

- Water Quality
- Air Quality
- Community Impacts (Noise, Right of Way, Visual)
- Biological Resources (Animal Species, Threatened and Endangered Species)

The discussion of potential cumulative impacts is presented by environmental resource area. A list of the reasonably foreseeable projects considered in this analysis, along with a figure showing proximity of the reasonably foreseeable projects to the I-10/Portola New Interchange project area, is provided in Table 2.2 and Figure 2.4, respectively, in the Growth Section in Chapter 2 of this environmental document. Twenty-one projects in the City of Palm Desert are currently planned, however, it is noted that depending on the parameters of the specific Resource Study Area (RSA) defined, some or all of these projects could be included in the associated cumulative analysis.

Affected Environment

Water Quality

The resource study area for water quality is the Upper Whitewater River watershed shown on Figure 2.26. This study area was selected because it is a contained system for regional surface water and storm water. The Upper Whitewater River watershed is a subunit of the larger Salton Sea Watershed.

The Colorado River Basin RWQCB has identified the Salton Sea Watershed as its Priority Watershed in the Colorado River Basin Region. It contains five of the region's impaired surface water bodies and the watershed has been identified as a Category 1 (impaired) Watershed under the 1997 California United Watershed Assignment (RWQCB). The Upper Whitewater River watershed does not contain any impaired surface water features but does have connectivity with the Salton Sea which is an impaired surface water feature.

The Upper Whitewater River watershed includes the Whitewater River and its tributaries including the San Gorgonio River, Chino Creek, Tahquitz Creek, Palm Canyon Creek and Deep Creek. However, due to the porous sandy desert soils in the region, most surface water infiltrates into the groundwater system and provides recharge to the Salton Sea and Coachella Valley aquifer.

Cumulative impacts are based on impacts associated with the proposed project in relation to other reasonably foreseeable development projects in the region. In Section 2.1.2 of this environmental document, Figure 2.4 shows and Table 2.2 summarizes, other roadway improvements and development considered to be reasonably foreseeable. Both the figure and table include projects located within the water quality RSA.

The Upper Whitewater River watershed is in good condition as no impaired surface or groundwater features have been identified by the California RWQCB. The RWQCB has ongoing monitoring programs to identify if the health of the Upper Whitewater River watershed begins to decline.

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Project Area
Upper Whitewater River Watershed
Hydrologic Unit
Whitewater River Hydrologic Unit

I-10/Portola Avenue Interchange Project Location

Varner Road
Monterey Avenue
Frank Sinatra Drive
Frank Sinatra Drive
Cook Street

1, Ponderosa II
2, Millennium Palm Desert
3, University Park
4, University Park
5, University Park
6, University Park
7, Desert Wells
8, Falling Waters
9, Dolce Development
10, Gallery
11, Spanish Walk
12, Encore
13, Fairfield Inn
14, Candlewood Suites
15, Gerald Ford Business Park
16, Marriott's Shadow Ridge
17, Valley Center Business Park
18, University Village
19, Cal State University Master Plan

V:\1570 Portola\SEA\2017\F2.26 Water Quality Resources Area 20170706.mxd

Source: ESRI 2008; Map Created 3/13/2018

N

0 10 20 Miles

FIGURE 2.26
Water Quality Resources Study Area

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Air Quality

The resource study area for air quality is the Salton Sea Air Basin, as shown in Figure 2.27.

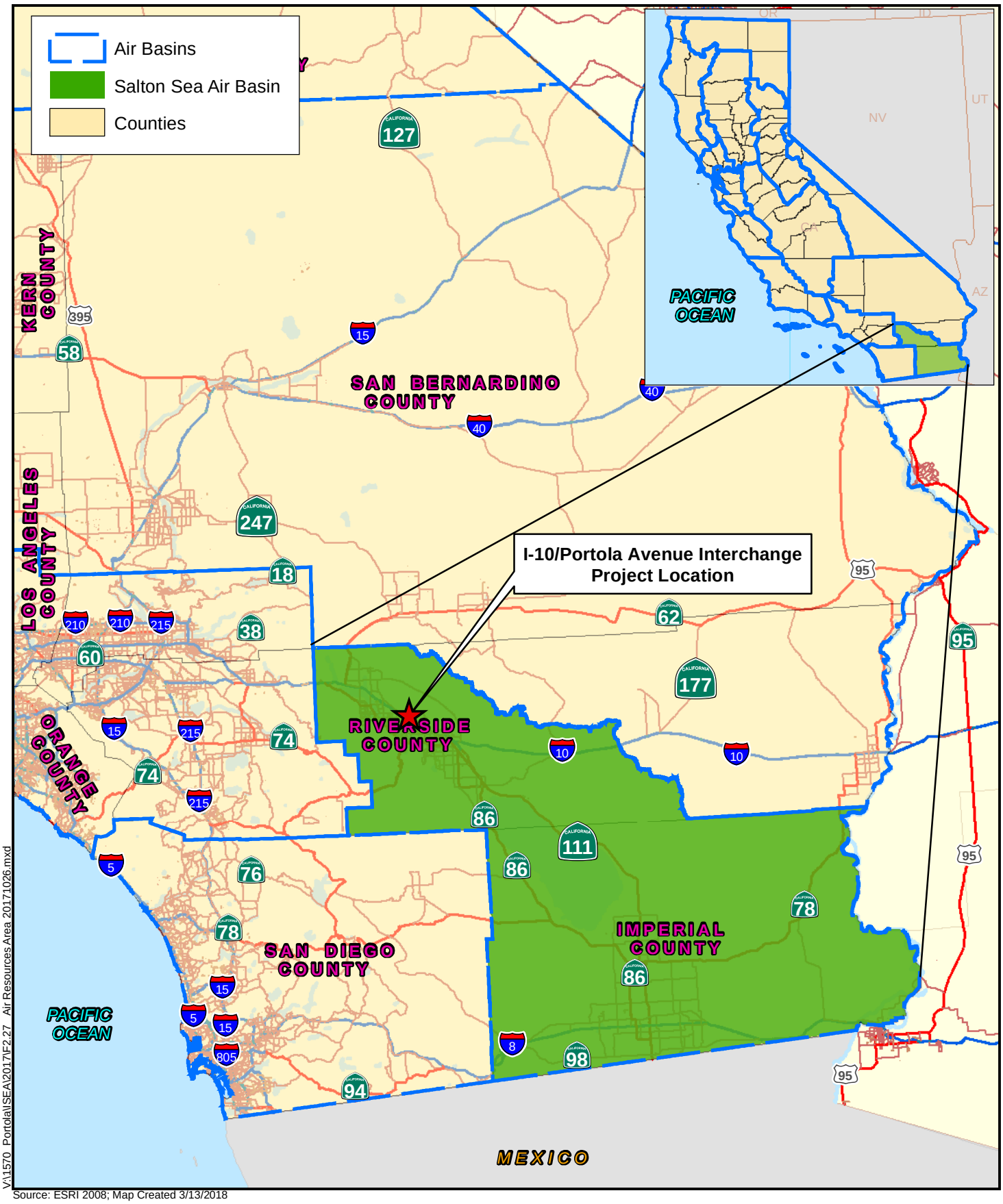
This Salton Sea Air Basin was selected as it is the geographic boundary used by the California Air Resources Board for monitoring air quality and emissions regionally in this part of Riverside County. The nearest air monitoring stations are located in the Cities of Indio and Palm Springs, approximately 10 and 15 miles from the City of Palm Desert respectively.

The air quality analysis for the I-10/Portola Avenue new interchange project is based on future traffic conditions in the year 2040, which accounts for development in the project area and region as envisioned in local General Plans, SCAG Projections, and the roadway improvements listed in the RTP and FTIP.

The proposed project is listed in the 2016 – 2040 Regional Transportation Plan/Sustainable Communities Strategy financially constrained Regional Transportation Plan which was found to conform by the Southern California Association of Governments on April 7, 2016, and FHWA and FTA made a regional conformity determination finding on June 1, 2016. The project is also included in SCAG's financially constrained 2017 Federal Transportation Improvement Program with Amendments 1-18, on page 2 of 15(Project ID RIV031209). The SCAG 2017 Federal Transportation Improvement Program was determined to conform by FHWA and FTA on December 15, 2014. The design concept and scope of the proposed project is consistent with the project description in the 2016 RTP/SCS, 2017 FTIP, and the "open to traffic assumptions" of SCAG's regional emissions analysis. The project is also included in SCAG's financially constrained 2017 FTIP (Project ID RIV031209).

Community Impacts

The resource study area for Community Impacts is shown in Figure 2.28. The discussion for Community Impacts is comprised of the following components: Noise, Right of Way, and Visual, as they relate to the community. The resource study area includes the project site and a 0.5 mile buffer to include properties adjacent to the project area which could be affected by changes in the noise environment, or permanent acquisition of right of way, or changes to visual features. A 0.5 mile buffer was used because noise is naturally attenuated by 6 dBA at 50 feet and per doubling of that distance; because there are no right of way acquisitions required more than 0.5 miles from the project area for this project; and because 0.50 mile is typically the distance within which a visual change can be seen from the highway and from which features on I-10 can be seen with clarity.



V:\1570_Portola\SEA\2017\F2.27_Air Resources Area 20171026.mxd

Source: ESRI 2008; Map Created 3/13/2018

0 50 100 Miles

FIGURE 2.27
Air Resource Study Area

NOISE

Noise in the RSA is made up predominantly of vehicle noise on I-10, the UPRR, and the adjacent local transportation network. Other sources of noise include general ambient noise associated with the existing surrounding development. Noise levels in the project area have increased with the increases in vehicle trips related to the development in this region over the last 25 years. Ambient noise levels from the surrounding area were monitored and included in the project's noise model.

RIGHT OF WAY

South of I-10, within the City of Palm Desert, the area where the proposed project is located is currently undeveloped. Adjacent land uses are identified in the City's General Plan as commercial along Dinah Shore Drive and residential near Portola Avenue/Dinah Shore Drive. The main existing commercial center is located just south of the Monterey Avenue Interchange and includes large retail businesses such as Costco, Sam's Club, Walmart, Home Depot, and Kohl's. South of I-10 between Monterey Avenue and Cook Street there are existing and planned residential developments (some of which are currently under construction and are referenced by name in Table 2.2).

North of I-10, within a portion of unincorporated Riverside County, the area where the proposed project is located is currently undeveloped. Adjacent land uses are identified in the County's General Plan as predominantly commercial along Varner Road and residential further from the freeway.as residential and also includes golf courses. Existing development in the study area includes two residential subdivisions which were developed in conjunction with the Tri-Palm Country Club and the Ivey Ranch Country Club. Access to these golf courses as well the Classic Club and Marriot's Shadow Ridge Golf Club would be improved with the addition of the proposed new interchange. These golf courses are frequented by local residents, visiting business and tourists, and are open year round.

VISUAL

The RSA is dominated by I-10 and adjacent development and roads. The visual character within the project limits is shaped primarily by the existing transportation system, which includes I-10, the Monterey Avenue and Cook Street Interchanges and the UPRR tracks. The project is located in a developing urban area. The areas surrounding the I-10 right of way are characterized by moderate-density development, infrastructure, and open space/vacant land. I-10 is not a designated scenic highway within the project boundaries, nor is the proposed I-10/Portola Avenue New Interchange located within designated scenic vistas.

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Project Area
Community Resource Study Area
Proposed Palm Desert Developments

East Ramon Road
Dinah Shore Drive
Dinah Shore Drive
Varner Road
Monterey Avenue
Portola Avenue
Bob Hope Drive
Gerald Ford Drive
Cook Street
Frank Sinatra Drive
10

1, Ponderosa II
2, Millennium Palm Desert
3, University Park
4, University Park
5, University Park
6, University Park
7, Desert Wells
8, Falling Waters
9, Dolce Development
10, Gallery
11, Spanish Walk
12, Encore
13, Fairfield Inn
14, Candlewood Suites
15, Gerald Ford Business Park
16, Marriott's Shadow Ridge
17, Valley Center Business Park
18, University Village
19, Cal State University Master Plan

V:\11570_PortolaIISEA\2017\F2.28_Noise_Resources_Area_20170706.mxd

Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

N

0 1,000 2,000 3,000 4,000 5,000 Feet

FIGURE 2.28
Community Resource Study Area

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Biological Environment

The RSA for the biological environment consists of the project area and a buffer around it which was designed to incorporate reasonably foreseeable development in the region with respect to biological resources and habitat in the existing environment (see Figure 2.23). In the context of potential cumulative impacts for biological resources, this section discusses Natural Communities, Plant Species, and Animal Species. The resources study area covers each of these biological resources. No project related impacts to Wetlands or other Waters, Threatened or Endangered Species, or Invasive Species were identified; therefore, no cumulative impacts are anticipated.

The Biological RSA consists of developed, ruderal, landscape, and natural areas. The region is about 40 to 50 percent developed, predominantly with residential, commercial, and recreational uses (golf courses); the remaining natural habitats are disturbed salt brush scrub with small pockets of natural Sonoran creosote bush scrub and Tamarisk windrows. The remaining natural habitats are disturbed salt brush scrub with small pockets of natural Sonoran creosote bush scrub and Tamarisk windrows. Historically, as development has increased in the surrounding area, suitable habitat for special status species has decreased.

Environmental Consequences

Water Quality

Increased pollutant loads are directly associated with the incremental increase of impervious surfaces which result in less area for stormwater to drain and infiltrate and increases the potential buildup of chemicals on roadways or parking lots such as hydrocarbons from vehicle emissions. Both Build Alternatives are considered to have a potential to contribute only nominally to impacting water quality within the RSA. The proposed project is anticipated to result in approximately 3.8 acres of additional impervious surfaces relative to natural soil.

Direct water quality impacts could also occur during construction in the form of erosion or inadequate containment of construction materials or leaking equipment. As discussed in Section 2.2.2 of this Environmental Document, BMPs would be implemented in compliance with NPDES permit requirements to minimize the potential for the proposed I-10 Portola Avenue New Interchange Project to impact water quality. Furthermore, the proposed project includes additional detention basins on the north side of I-10 to provide capacity for the increases in impervious surfaces anticipated as a result of construction of the project. No indirect impacts to water quality are anticipated as a result of implementation/construction of this project.

The proposed I-10 Portola Avenue New Interchange Project as well as all of the other projects identified in the RSA are required to comply with all applicable regulations in effect, minimizing the potential for each of these projects separately and cumulatively to impact water quality within the RSA. The proposed project's contribution toward cumulative impacts to water quality, in conjunction with other projects within the RSA, is expected to be minimal; therefore no measures are required.

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Project Area
Biological Resources Study Area
Proposed Palm Desert Developments

East Ramon Road
Dinah Shore Drive
Dinah Shore Drive
Varner Road
Monterey Avenue
Bob Hope Drive
Gerald Ford Drive
Portola Avenue
Cook Street
Frank Sinatra Drive
10

1, Ponderosa II
2, Millennium Palm Desert
3, University Park
4, University Park
5, University Park
6, University Park
7, Desert Wells
8, Falling Waters
9, Dolce Development
10, Gallery
11, Spanish Walk
12, Encore
13, Fairfield Inn
14, Candlewood Suites
15, Gerald Ford Business Park
16, Marriott's Shadow Ridge
17, Valley Center Business Park
18, University Village
19, Cal State University Master Plan

V:\11570_Portola\SEA\2017\F2.29_Bio Resources Area 20171026.mxd

Source: ESRI Aerial Imagery 4/24/2016, with supplemental Google Earth Aerial Imagery 4/16/2017; Map Created 3/13/2018.

N

0 1,000 2,000 3,000 4,000 5,000 Feet

FIGURE 2.29
Biological Resources Study Area

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Air Quality

Long term air quality will be directly affected by an increase in vehicle miles traveled; however, this increase in emissions will be offset by a reduction in traffic congestion which will No direct or indirect long term air quality impacts are anticipated as a result of this project. The analysis of proposed project impacts (under both Build Alternatives) to regional air quality, as performed by SCAG and SCAQMD in conjunction with the RTP and RTIP process, is a cumulative analysis for all project in the region that could have long term transportation related emissions impacts. The proposed project would conform to the assumptions in the air quality conformity analyses for the SCAG 2016-2040 RTP/SCS and SCAG 2017 FTIP, which are long-range planning documents that include air quality modeling.

Direct impacts to air quality would occur during construction with the increase of emissions from construction vehicles and dust generation during earthwork. These impacts are not expected to be substantial since they are short term and would further be minimized through the use of air quality BMPs. A review of the other projects in the RSA identified three adjacent projects that are currently under construction now (Millennium Palm Desert, Falling Waters, Dolce Development). Based on records provided by the City, the Millennium Palm Desert phased construction may overlap with the interchange but Falling Waters and Dolce Development are expected to be completed by 2019. Since the above projects are not anticipated to be in construction at the same time, cumulative construction related air quality impacts are not expected to be substantial. Construction air quality emissions and dust are relatively localized so projects that are further away and under construction (such as Marriott's Shadow Ridge, Valley Center Business Park, University Village, and Cal State University Master Plan Development are not expected to contribute cumulatively to the proposed I-10/Portola Avenue New Interchange Project. Furthermore; all projects will be obligated to follow the South Coast Air Quality Management District guidelines for minimizing construction emissions and dust. Therefore, the proposed project would not result in a long-term or short-term cumulative impact to air quality and no measures are required.

Community Impacts

NOISE

The operational noise impact analysis for the proposed project is predicated based on future traffic projections. Other planned development in the resource study area that could worsen the existing noise conditions would also be required to address potential noise impacts specific to changes caused by that project. No direct or indirect noise impacts are anticipated because the proposed project is expected to increase noise levels by 3 decibels or less which is a barely perceptible change to humans. Adjacent planned development in the RSA is predominantly residential and commercial. These uses would generate additional vehicle trips, but would not be expected to generate substantial stationary noise which could result in cumulative impacts. At this time, no private development construction is expected to occur in the immediate area of the construction of the interchange. The two development projects directly adjacent to the project area are the Ponderosa II development which does not have construction dates scheduled, and Millennium Palm Desert which is already under phased construction. The areas adjacent to the proposed interchange are expected to be completed prior to construction of the interchange. When considering this new interchange project with adjacent private development projects, no cumulatively considerable increased noise impacts to the community are expected. Therefore, no measures are required.

RIGHT-OF-WAY

The proposed I-10/Portola Avenue New Interchange project is anticipated to have direct impacts to right-of-way and would require the partial acquisition of parcels for right of way expansion, but no full acquisitions are anticipated to be necessary. The project will also require slope easements. No existing residences or other buildings would be affected. Indirect impacts to right-of-way are not expected to occur. All other development in the RSA is private and local consisting of residential, commercial, and other mixed-use development. These types of developments would have minimal impacts to existing rights-of-way compared with a transportation infrastructure project such as the I-10/Portola Avenue New Interchange Project. As a result, these projects when considered together, are unlikely to have cumulatively considerable impacts to right-of-way and therefore, no measures are required.

VISUAL

The proposed project, while having noticeable changes to the visual character due to construction of a new interchange and overcrossing structure, would result in a moderately low change to the existing visual character within the project area. Due to similarities in the proposed features, compared with the surrounding visual environment, the project would result in a moderately low change to existing visual intactness and unity. As a result, the change to existing visual quality would result in a moderately low direct impact. No indirect impacts to visual resources are anticipated. When taken into consideration with other developments in the project area, most of these are expected to be low profile residential and commercial construction consistent with the surrounding urban environment of the City of Palm Desert. Furthermore, all public and private development have been, or will be reviewed by the City of Palm Desert (or Riverside County) and would be required to be consistent with the local agency's General Plan. Other overall visual character of the interchange project and surrounding development projects would be consistent with the current developing City of Palm Desert view sheds and the desert community. These projects considered together would not be expected to have cumulatively considerable impacts as they relate to the community; therefore, no measures are required.

Biological Resources

NATURAL COMMUNITIES

Construction activities would result in direct impacts to natural communities through disturbance of habitats in the project area; however, activities would be confined by ESA fencing to as small of an area as possible. Vegetation would be trimmed, rather than removed, where possible. No indirect impacts are expected to occur. Construction would not have a cumulatively considerable contribution to the decline of sensitive habitats in the region. Other projects in the region would also be required (by USFWS, USACE, CDFW, and local jurisdictions) to avoid, minimize, and mitigate for construction impacts on habitats that are potentially suitable for protected species.

Implementation of the project would result in a small incremental loss of disturbed Sonoran creosote bush scrub, saltbush scrub, and tamarisk windrows. These habitats have already been fragmented and disturbed by prior historic land uses such as agriculture and development of the City of Palm Desert. This proposed project is a Covered Activity described in Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) Section 7.2.3 Regional Road Project. Since the project is included as a covered activity under this plan, loss of natural habitat in the project area was anticipated as part of the CVMSCP. Impacts to natural communities through the loss of habitat have already been mitigated as part of the Coachella Valley Association of

Governments' contribution of funds to the CVMSHCP for land acquisition and implementation of the Monitoring Program, the Management Program, and Adaptive Management. Local development projects would be required to coordinate with the City of Palm Desert and the County of Riverside to ensure those projects are also consistent with the CVMSHCP through the planned development permitting process. By ensuring all projects in the RSA are consistent with the CVMSHCP, no cumulatively considerable impacts to natural communities are anticipated, and therefore, no measures are required.

PLANT SPECIES

The only special status plant species observed in the RSA or determined to have a moderate or high likelihood of occurrence is the chaparral sand verbena. The three specimen were observed outside the construction zone so, no direct impacts to this species are expected to occur during construction with implementation of avoidance/minimization measures. Indirect impacts may occur to the chaparral sand verbena through the incremental loss of suitable habitat.

Among the cumulative effects to chaparral sand verbena include urban (residential, recreational golf courses, commercial), historic off-road vehicle use, road maintenance, and alteration of fire regimes. Although the project would convert existing disturbed habitat suitable for the species into road right-of-way, as a covered project under the CVMSHCP, impacts to chaparral sand verbena habitat would be offset by the regional conservation of desert lands within the CVMSHCP area. Further, with the implementation of minimization and avoidance measures, cumulative impacts to the chaparral sand verbena as a result of the project are not anticipated, and therefore, no measures are required.

ANIMAL SPECIES

No direct impacts to animal species are expected to occur during construction with implementation of avoidance/minimization measures. Indirect impacts may occur to animal species through the incremental loss of suitable habitat for the Flat Tail Horned Lizard, Palm Springs Round-Tailed Ground Squirrel, Loggerhead Shrike and the Burrowing Owl, both of which have been historically present in or around the project area.

This proposed project is a Covered Activity described in CVMSHCP Section 7.2.3 Regional Road Project. Since the project is included as a covered activity under this plan, loss of this habitat, and the potential for indirect impacts to the Flat Tail Horned Lizard, Ground Squirrel, Loggerhead Shrike, and Burrowing Owl was anticipated as part of the CVMSCP. Impacts to animal species through the loss of suitable habitat have already been mitigated as part of the Coachella Valley Association of Governments' contribution of funds to the CVMSHCP for land acquisition and implementation of the Monitoring Program, the Management Program, and Adaptive Management. As a result, this project would not have cumulatively considerable impacts to animal species, and therefore, no measures are required.

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2.5 Climate Change (CEQA)

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 by the United Nations and World Meteorological Organization in 1988, has 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), HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of GHG emissions is electricity generation, followed by transportation.[4] In California, however, transportation sources (including passenger cars, light-duty trucks, other trucks, buses, and motorcycles) are the largest contributors of GHG emissions.[5] The dominant GHG emitted is CO_2, mostly from fossil fuel combustion.

Two terms are typically used when discussing how we address the impacts of climate change: “greenhouse gas mitigation” and “adaptation.” "Greenhouse gas mitigation" is a term for reducing GHG emissions to reduce or "mitigate" the impacts of climate change. “Adaptation" refers to 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).

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.[6] This approach encourages planning for sustainable highways by addressing climate risks while

[4] https://www.epa.gov/ghgemissions/us-greenhouse-gas-inventory-report-1990-2014

[5] https://www.arb.ca.gov/cc/inventory/data/data.htm

[6] https://www.fhwa.dot.gov/environment/sustainability/resilience/

balancing environmental, economic, and social values—"the triple bottom line of sustainability."[7] 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. Addressing these factors up front in the planning process will assist in decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project-level decision-making.

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 Energy Policy Act of 1992 (EPACT92, 102nd Congress H.R.776.ENR): With this act, Congress set goals, created mandates, and amended utility laws to increase clean energy use and improve overall energy efficiency in the United States. EPACT92 consists of 27 titles detailing various measures designed to lessen the nation's dependence on imported energy, provide incentives for clean and renewable energy, and promote energy conservation in buildings. Title III of EPACT92 addresses alternative fuels. It gave the U.S. Department of Energy administrative power to regulate the minimum number of light-duty alternative fuel vehicles required in certain federal fleets beginning in fiscal year 1993. The primary goal of the Program is to cut petroleum use in the United States by 2.5 billion gallons per year by 2020.

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) Indian 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.

Energy Policy and Conservation Act of 1975 (42 USC Section 6201) and Corporate Average Fuel 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 Corporate Average Fuel Economy (CAFE) program on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States.

Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, 74 *Federal Register* 52117 (October 8, 2009): This federal EO set sustainability goals for federal agencies and focuses on making improvements in their environmental, energy, and economic performance. It instituted as policy of the United States that federal agencies measure, report, and reduce their GHG emissions from direct and indirect activities.

Executive Order 13693, *Planning for Federal Sustainability in the Next Decade*, 80 Federal Register 15869 (March 2015): This EO reaffirms the policy of the United States that federal agencies measure, report, and reduce their GHG emissions from direct and indirect activities. It sets sustainability goals for all agencies to promote energy conservation, efficiency, and management by reducing energy consumption and GHG emissions. It builds on the adaptation and resiliency goals in previous executive orders to ensure agency operations and facilities prepare for impacts of climate change. This order revokes Executive Order 13514.

U.S. EPA's authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts* v. *EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling,

[7] https://www.sustainablehighways.dot.gov/overview.aspx

U.S. EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing Act and EPA's assessment of the scientific evidence that form the basis for EPA's regulatory actions.

U.S. EPA in conjunction with the National Highway Traffic Safety Administration (NHTSA) issued the first of a series of GHG emission standards for new cars and light-duty vehicles in April 2010[8] and significantly increased the fuel economy of all new passenger cars and light trucks sold in the United States. The standards required these vehicles to meet an average fuel economy of 34.1 miles per gallon by 2016. In August 2012, the federal government adopted the second rule that increases fuel economy for the fleet of passenger cars, light-duty trucks, and medium-duty passenger vehicles for model years 2017 and beyond to average fuel economy of 54.5 miles per gallon by 2025. Because NHTSA cannot set standards beyond model year 2021 due to statutory obligations and the rules' long timeframe, a mid-term evaluation is included in the rule. The Mid-Term Evaluation is the overarching process by which NHTSA, EPA, and ARB will decide on CAFE and GHG emissions standard stringency for model years 2022–2025. NHTSA has not formally adopted standards for model years 2022 through 2025. However, the EPA finalized its mid-term review in January 2017, affirming that the target fleet average of at least 54.5 miles per gallon by 2025 was appropriate. In March 2017, President Trump ordered EPA to reopen the review and reconsider the mileage target.[9]

NHTSA and EPA issued a Final Rule for "Phase 2" for medium- and heavy-duty vehicles to improve fuel efficiency and cut carbon pollution in October 2016. The agencies estimate that the standards will save up to 2 billion barrels of oil and reduce CO_2 emissions by up to 1.1 billion metric tons over the lifetimes of model year 2018–2027 vehicles.

Presidential Executive Order 13783, *Promoting Energy Independence and Economic Growth*, of March 28, 2017, orders all federal agencies to apply cost-benefit analyses to regulations of GHG emissions and evaluations of the social cost of carbon, nitrous oxide, and methane.

State

With the passage of legislation including State Senate and Assembly bills and executive orders, California has been innovative and proactive in addressing GHG emissions and climate change.

Assembly Bill 1493, Pavley Vehicular Emissions: Greenhouse Gases, 2002: This bill requires the California Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year.

Executive Order S-3-05 (June 1, 2005): The goal of this executive order (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 32 in 2006 and SB 32 in 2016.

Assembly Bill 32 (AB 32), Chapter 488, 2006: Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 codified the 2020 GHG emissions reduction goals as outlined in EO S-3-05,

[8] http://www.c2es.org/federal/executive/epa/greenhouse-gas-regulation-faq

[9] http://www.nbcnews.com/business/autos/trump-rolls-back-obama-era-fuel-economy-standards-n734256 and https://www.federalregister.gov/documents/2017/03/22/2017-05316/notice-of-intention-to-reconsider-the-final-determination-of-the-mid-term-evaluation-of-greenhouse

while further mandating that 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 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.

Executive Order S-20-06 (October 18, 2006): This order establishes the responsibilities and roles of the Secretary of the California Environmental Protection Agency (Cal/EPA) and state agencies with regard to climate change.

Executive Order 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 97 (SB 97), Chapter 185, 2007, Greenhouse Gas Emissions: This bill requires the Governor's Office of Planning and Research (OPR) to develop recommended amendments to the California Environmental Quality Act (CEQA) Guidelines for addressing GHG emissions. The amendments became effective on March 18, 2010.

Senate Bill 375 (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.

Senate Bill 391 (SB 391), Chapter 585, 2009, California Transportation Plan: This bill requires the State's long-range transportation plan to meet California's climate change goals under AB 32.

Executive Order 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.

Executive Order B-30-15 (April 2015) establishes an interim statewide GHG emission reduction target of 40 percent below 1990 levels by 2030 in order 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 ($MMTCO_2e$). 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.

Senate Bill 32, (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.

Environmental Setting

In 2006, the Legislature passed the California Global Warming Solutions Act of 2006 (AB 32), which created a comprehensive, multi-year program to reduce GHG emissions in California. AB 32 required ARB 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. The Scoping Plan was first approved by ARB in 2008 and must be updated every 5 years. ARB approved the *First Update to the Climate Change Scoping Plan* on May 22, 2014. ARB is moving forward with a discussion draft of an updated Scoping Plan that will reflect 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. As part of its supporting documentation for the Draft Scoping Plan, ARB released the GHG inventory for California.[10] ARB is responsible for maintaining and updating California's GHG Inventory per H&SC Section 39607.4. The associated forecast/projection is an estimate of the emissions anticipated to occur in the year 2020 if none of the foreseeable measures included in the Scoping Plan were implemented.

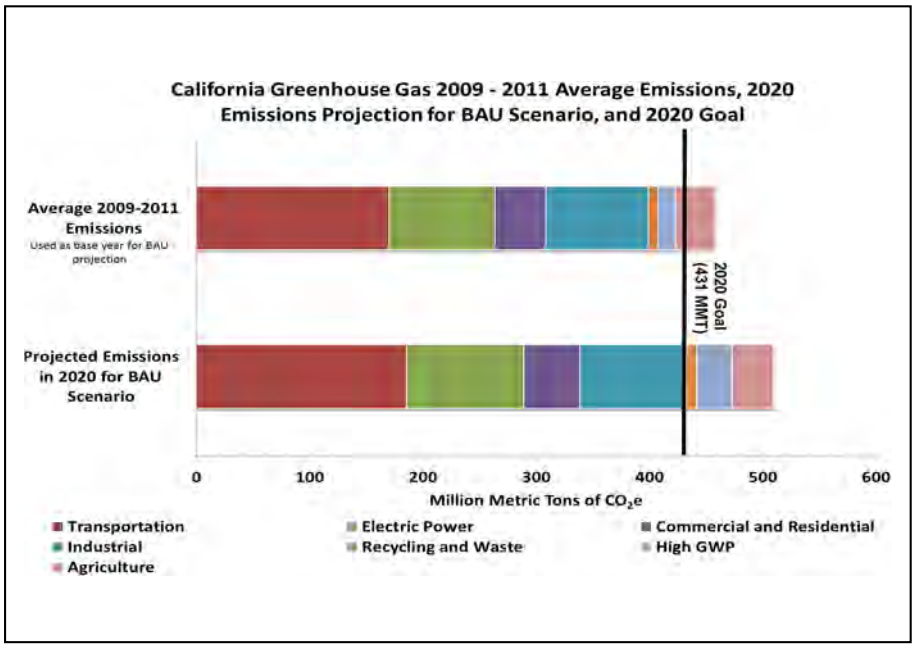
An emissions projection estimates future emissions based on current emissions, expected regulatory implementation, and other technological, social, economic, and behavioral patterns. The projected 2020 emissions provided in Figure 2.30 represent a business-as-usual (BAU) scenario assuming none of the Scoping Plan measures are implemented. The 2020 BAU emissions estimate assists ARB in demonstrating progress toward meeting the 2020 goal of 431 MMTCO2e[11]. The 2017 edition of the GHG emissions inventory (released June 2017) found total California emissions of 440.4 $MMTCO_2e$, showing progress towards meeting the AB 32 goals.

The 2020 BAU emissions projection was revisited in support of the First Update to the Scoping Plan (2014). This projection accounts for updates to the economic forecasts of fuel and energy demand as well as other factors. It also accounts for the effects of the 2008 economic recession and the projected recovery. The total emissions expected in the 2020 BAU scenario include reductions anticipated from Pavley I and the Renewable Electricity Standard (30 $MMTCO_2e$ total). With these reductions in the baseline, estimated 2020 statewide BAU emissions are 509 $MMTCO_2e$.

[10] 2017 Edition of the GHG Emission Inventory Released (June 2017): https://www.arb.ca.gov/cc/inventory/data/data.htm

[11] The revised target using Global Warming Potentials (GWP) from the IPCC Fourth Assessment Report (AR4)

Figure 2.30: 2020 Business as Usual (BAU) Emissions Projection 2014 Edition



Project Analysis

An individual project does not generate enough GHG emissions to substantially influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its *incremental* change in emissions when combined with the contributions of all other sources of GHG.[12] 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. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult, if not impossible, task.

GHG emissions for transportation projects can be divided into those produced during operations and those produced during construction. The following represents a best faith effort to describe the potential GHG emissions related to the proposed project.

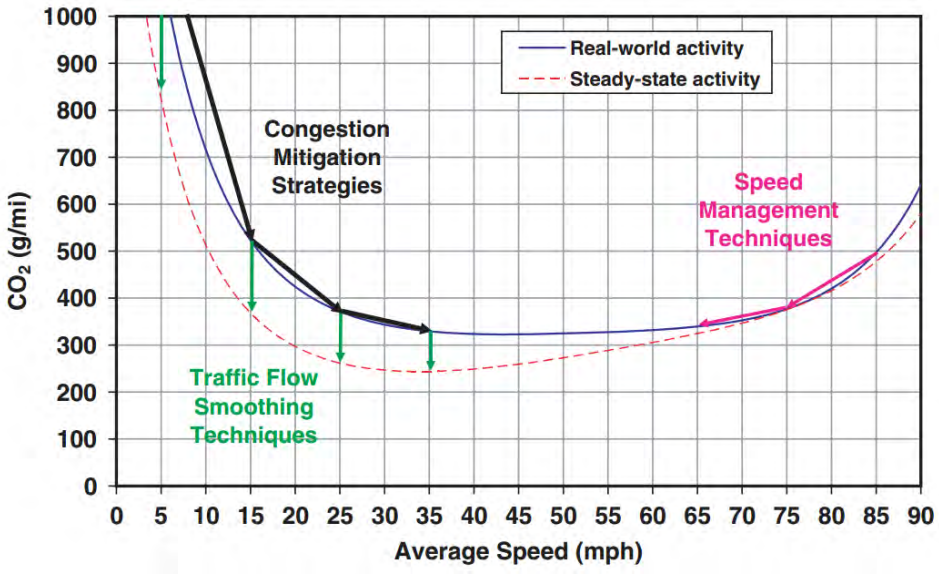
Operational Emissions

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.

[12] This approach is supported by the AEP: *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), as well as the South Coast Air Quality Management District (Chapter 6: The CEQA Guide, April 2011) and the US Forest Service (Climate Change Considerations in Project Level NEPA Analysis, July 13, 2009).

FHWA supports these strategies to lessen climate change impacts, which correlate with efforts that the state of California is undertaking to reduce GHG emissions from the transportation sector.

Figure 2.31: Possible Use of Traffic Operations Strategies in Reducing On-Road CO_2 Emissions



Source: Matthew Barth and Kanok Boriboonsomsin, University of California, Riverside, May 2010 (http://uctc.berkeley.edu/research/papers/846.pdf)

The highest levels of CO_2 from mobile sources such as automobiles occur at stop-and-go speeds (0–25 miles per hour) and speeds over 55 miles per hour; the most severe emissions occur from 0–25 miles per hour (see Figure 2.31 above). To the extent that a project relieves congestion by enhancing operations and improving travel times in high-congestion travel corridors, GHG emissions, particularly CO_2, may be reduced.

The project is designed to reduce congestion and vehicle time delays. The project is included in the SCAG 2016-2040 RTP/SCS and SCAG 2017 FTIP and is designed to reduce VHT and improve overall traffic flow. SCAG's RTP, which includes the project as part of its overall strategy, satisfies the region's GHG emission reduction targets and is anticipated to achieve per capita GHG emission reductions relative of 2005 of nine percent in 2020 and 16 percent in 2035 (SCAG 2012).

The City's General Plan (2016) identified the need for a new connection at I-10 to serve forecasted growth. As further studied in the I-10/Portola Avenue New Interchange Project New Connection Report (2009), Traffic Operations Analysis (2009), and Traffic Volume Validation Report (2015), without an additional connection to I-10 in the area, the adjacent existing interchanges at Cook Street and Monterey Avenue would experience increased congestion. Accordingly, the scope of the project focuses on interchange alternatives. Nonetheless, it should be noted that the proposed new interchange is part of the overall transportation framework of the region, which includes public transit options. Bus transit is currently provided by the SunLine Transit Agency which includes routes serving Coachella Valley. Furthermore, the City is actively working to add commuter rail and express mass transit service to its regional access system. In addition, this project (both Build Alternatives) would construct an 8-foot sidewalk on the west side of Portola Avenue and 8-foot

shoulders to provide bicycle access on Portola Avenue and Varner Road. These improvements would enhance pedestrian and bicycle facilities on local roadways in the project area to provide additional alternative modes of travel to vehicle transit.

Quantitative Analysis

Based on emissions factors from the EMFAC 2014 model and information from the Traffic Operations Analysis (2009) and Traffic Volume Validation Report (2015), traffic in the project area currently generates approximately 20 tons of CO_2 per day during the AM and PM peak hours combined. All alternatives, including the No-Build Alternative, would result in more GHG emissions when compared to existing conditions (Table 2.28), because of increased demand created by planned development anticipated in County and City general plans. This claim is substantiated by the traffic analysis prepared for the project which projects level of service F during peak hours at the Monterey Avenue and Cook Street interchanges with over 200 seconds of delay per vehicle at key intersections. Vehicle delay results in additional idling which is a major contributor to CO_2 emissions.

The purpose of the proposed project is to improve traffic operations at the I-10 Monterey Avenue and Cook Street Interchanges and improve local circulation. By improving traffic flow through I-10, the proposed Build Alternatives are estimated to generate the same or less CO_2 than the future No-Build Alternative in both opening and future (design) years. With the anticipated growth in demand, the No-Build would result in 29 tons of CO_2 during the AM and PM peak hours combined in the opening year 2020. Alternatives 2 and 3 would reduce CO_2 opening-year emissions during peak hours to 26 tons by reducing congestion. The peak-hour projections for the future year (2040) suggest that No-Build conditions would result in 45 tons of CO_2, whereas proposed Alternatives 2 and 3 would result in 33 tons of CO_2. In other words, either Build Alternative would reduce design year CO_2 peak-hour emissions by approximately 27% in the project area. This reduction is attributed directly to a reduction of vehicle miles traveled and vehicle hours traveled. By constructing this new interchange, vehicle trips will be more direct, reducing the miles traveled, and the project will reduce regional traffic congestion and traffic delays, reducing vehicle hours traveled.

Table 2.28: Modeled CO_2 Emissions (tons) at the Project Location

Time span	Existing (2015)	Opening (Year 2020)			Future (Year 2040)		
		Alt 1 No-Build	Alt 2	Alt 3	Alt 1 No-Build	Alt 2	Alt 3
AM Peak Hour	10	18	13	13	16	16	16
PM Peak Hour	10	11	13	13	29	17	17
Combined Peak Hours	**20**	**29**	**26**	**26**	**45**	**33**	**33**
*Based on EMFAC 2014 CO_2 emissions rates							

While EMFAC has a rigorous scientific foundation and has been vetted through multiple stakeholder reviews, its emission rates are based on tailpipe emission test data. The numbers are estimates of CO_2 emissions and not necessarily the actual CO_2 emissions. The model does not account for factors such as the rate of acceleration and the vehicles' aerodynamics, which would influence CO_2 emissions. To account for CO_2 emissions, ARB's GHG Inventory follows the IPCC guideline by assuming complete fuel combustion, while still using EMFAC data to calculate CH_4 and N_2O emissions. Though EMFAC is currently the best available tool for use in calculating GHG emissions, it is important to note that the CO_2 numbers provided are only useful for a comparison of alternatives.

Construction Emissions

Construction in Riverside County contributes approximately 110,000 metric tons of GHG every year (SCAG 2012). 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 Sacramento Metropolitan Air Quality Management District Road Construction Emissions Model was used to quantify the expected construction-related GHG emissions related to the proposed project. Construction was estimated to occur over 36 months. The on-site construction equipment for proposed project is anticipated to emit 4,950 metric tons of GHG during construction, less than 1% of the annual GHG emissions during construction within Riverside County (Table 2.29).

Table 2.29. Construction CO_2 Emissions

Greenhouse Gas	Road Construction Emissions Model Estimates (metric tons/year)
CO_2	2,556 total for the project

Source: Modeling using the *Roadway Construction Emissions Model* 8.1.0 (Sacramento Metropolitan Air Quality Management District 2017).
https://www.epa.gov/sites/production/files/2015-12/documents/ghgpermittingguidance.pdf

Potential impacts from construction related GHG emissions would be minimized by adherence to measure CC-1, requiring construction activities to comply with the SCAQMD rules and regulations, and Caltrans Standard Specifications as described in measure CC-3, below.

CEQA Conclusion

As discussed above, future GHG emissions both with and without the project will be more than under existing conditions. Both build alternatives would result in lower GHG emissions than the No Build Alternative in both opening and design years. Nonetheless, there are also limitations with EMFAC and with assessing what a given CO_2 emissions increase means for climate change. Therefore, it is Caltrans' determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and CEQA significance, it is too speculative to make a determination regarding significance of the project's direct impact and its contribution on

the cumulative scale to climate change. However, Caltrans is firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the following section.

Greenhouse Gas Reduction Strategies

Statewide Efforts

In an effort to further the vision of California's GHG reduction targets outlined an AB 32 and SB 32, Governor Brown identified key climate change strategy pillars (concepts). These pillars highlight the idea that several major areas of the California economy will need to reduce emissions to meet the 2030 GHG emissions target. These pillars are (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 farm and rangelands, forests, and wetlands so they can store carbon; and (6) periodically updating the state's climate adaptation strategy, *Safeguarding California*.

Figure 2.32: The Governor's Climate change pillars - 2030 Greenhouse gas reduction goals

The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that we build on our past successes in reducing criteria and toxic air pollutants from transportation and goods movement activities. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled. One of Governor Brown's key pillars sets the ambitious goal of reducing today's petroleum use in cars and trucks by up to 50 percent by 2030.

Governor Brown called for support to manage natural and working lands, including forests, rangelands, farms, wetlands, and soils, so they can store carbon. These lands have the ability to remove carbon dioxide from the atmosphere through biological processes, and to then sequester carbon in above- and below-ground matter.

Caltrans Activities

Caltrans continues to be involved on the Governor's Climate Action Team as the ARB 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 a new 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. The CTP defines performance-based goals, policies, and strategies to achieve our collective vision for California's future statewide, integrated, multimodal transportation system. It serves as an umbrella document for all of the other statewide transportation planning documents.

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 per capita
- 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 funding and technical assistance programs that have GHG reduction benefits. These include the Bicycle Transportation Program, Safe Routes to School, Transportation Enhancement Funds, and Transit Planning Grants. A more extensive description of these programs can be found in *Caltrans Activities to Address Climate Change* (2013).

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 activities undertaken by Caltrans statewide 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. In addition to the measures below, measures AQ-10, VIS-1a, and VIS-2 would also contribute to reducing greenhouse gas emissions.

CC-1: The contractor must comply with all local Air Quality Management District rules, ordinances, and regulations for air quality restrictions, which include the following relevant measures from the County of Riverside General Plan Air Quality Element:
- AQ 4.6. Require stationary air pollution sources to comply with applicable air district rules and control measures.

CC-2: Incorporate the use of energy efficient lighting, such as LED traffic signals. LED bulbs are estimated to cost $60 to $70 each but last five to six years, compared to the one-year average lifespan of the incandescent bulbs previously used. The LED bulbs themselves consume 10 percent of the electricity of traditional lights, which will also help reduce the projects CO_2 emissions.

CC-3: According to Caltrans' Standard Specifications, the contractor shall comply with all local Air Pollution Control District's rules, ordinances, and regulations regarding air quality restrictions.

CC-4 Limit construction to off-peak hours to minimize traffic delays during construction. The construction contractor will be required to coordinate with Caltrans and obtain traffic management plan approvals for any planned lane closures during construction.

Adaptation Strategies

"Adaptation strategies" refer to how Caltrans and others can plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage—or, put another way, planning and design for resilience. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damage to roadbeds from longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. These types of impacts to the transportation infrastructure may also have economic and strategic ramifications.

Federal Efforts

At the federal level, the Climate Change Adaptation Task Force, co-chaired by the CEQ, the Office of Science and Technology Policy (OSTP), and the National Oceanic and Atmospheric Administration (NOAA), released its interagency task force progress report on October 28, 2011[13], outlining the federal government's progress in expanding and strengthening the nation's capacity to better understand, prepare for, and respond to extreme events and other climate change impacts. The report provided an update on actions in key areas of federal adaptation, including: building resilience in local communities, safeguarding critical natural resources such as fresh

[13] https://obamawhitehouse.archives.gov/administration/eop/ceq/initiatives/resilience

water, and providing accessible climate information and tools to help decision-makers manage climate risks.

The federal Department of Transportation issued *U.S. DOT Policy Statement on Climate Adaptation* in June 2011, committing 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."[14]

To further the DOT Policy Statement, in December 15, 2014, FHWA issued order 5520 (*Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events*).[15] This directive established FHWA policy to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. The FHWA will work to integrate consideration of these risks into its planning, operations, policies, and programs in order to promote preparedness and resilience; safeguard federal investments; and ensure the safety, reliability, and sustainability of the nation's transportation systems.

FHWA has developed guidance and tools for transportation planning that fosters resilience to climate effects and sustainability at the federal, state, and local levels.[16]

State Efforts

On November 14, 2008, then-Governor Arnold Schwarzenegger signed EO S-13-08, which directed a number of state agencies to address California's vulnerability to sea-level rise caused by climate change. This EO set in motion several agencies and actions to address the concern of sea-level rise and directed all state agencies planning to construct projects in areas vulnerable to future sea-level rise to consider a range of sea-level rise scenarios for the years 2050 and 2100, assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea-level rise. Sea-level rise estimates should also be used in conjunction with information on local uplift and subsidence, coastal erosion rates, predicted higher high water levels, and storm surge and storm wave data.

Governor Schwarzenegger also requested the National Academy of Sciences to prepare an assessment report to recommend how California should plan for future sea-level rise. The final report, *Sea-Level Rise for the Coasts of California, Oregon, and Washington* (Sea-Level Rise Assessment Report)[17] was released in June 2012 and included relative sea-level rise projections for the three states, taking into account coastal erosion rates, tidal impacts, El Niño and La Niña events, storm surge, and land subsidence rates; and the range of uncertainty in selected sea-level rise projections. It provided a synthesis of existing information on projected sea-level rise impacts to state infrastructure (such as roads, public facilities, and beaches), natural areas, and coastal and marine ecosystems; and a discussion of future research needs regarding sea-level rise.

In response to EO S-13-08, the California Natural Resources Agency (Resources Agency), in coordination with local, regional, state, federal, and public and private entities, developed *The*

[14] https://www.fhwa.dot.gov/environment/sustainability/resilience/policy_and_guidance/usdot.cfm

[15] https://www.fhwa.dot.gov/legsregs/directives/orders/5520.cfm

[16] https://www.fhwa.dot.gov/environment/sustainability/resilience/

[17] *Sea Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future* (2012) is available at: http://www.nap.edu/catalog.php?record_id=13389.

California Climate Adaptation Strategy (Dec 2009),[18] which summarized the best available science on climate change impacts to California, assessed California's vulnerability to the identified impacts, and outlined solutions that can be implemented within and across state agencies to promote resiliency. The adaptation strategy was updated and rebranded in 2014 as *Safeguarding California: Reducing Climate Risk* (Safeguarding California Plan).

Governor Jerry Brown enhanced the overall adaptation planning effort by signing EO B-30-15 in April 2015, requiring state agencies to factor climate change into all planning and investment decisions. In March 2016, sector-specific Implementation Action Plans that demonstrate how state agencies are implementing EO B-30-15 were added to the Safeguarding California Plan. This effort represents a multi-agency, cross-sector approach to addressing adaptation to climate change-related events statewide.

EO S-13-08 also gave rise to the *State of California Sea-Level Rise Interim Guidance Document* (SLR Guidance), produced by the Coastal and Ocean Working Group of the California Climate Action Team (CO-CAT), of which Caltrans is a member. First published in 2010, the document provided "guidance for incorporating sea-level rise (SLR) projections into planning and decision making for projects in California," specifically, "information and recommendations to enhance consistency across agencies in their development of approaches to SLR." The March 2013 update[19] finalizes the SLR Guidance by incorporating findings of the National Academy's 2012 final Sea-Level Rise Assessment Report; the policy recommendations remain the same as those in the 2010 interim SLR Guidance. The guidance will be updated as necessary in the future to reflect the latest scientific understanding of how the climate is changing and how this change may affect the rates of SLR.

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system from increased precipitation, and flooding; the increased frequency and intensity of storms and wildfires; rising temperatures; and rising sea levels. Caltrans is actively engaged in in working towards identifying these risks throughout the state and will work to incorporate this information into all planning and investment decisions as directed in EO B-30-15.

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.

[18] http://www.climatechange.ca.gov/adaptation/strategy/index.html

[19] http://www.opc.ca.gov/2013/04/update-to-the-sea-level-rise-guidance-document/

Chapter 3 – Comments and Coordination

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process to determine the scope of environmental documentation, the level of analysis, potential impacts and mitigation measures and related environmental requirements. Agency consultation and participation for this proposed project have been accomplished through a variety of formal and informal methods, including project development team meetings, interagency coordination meetings, and coordination with resources agencies and Native American individuals and organizations. This chapter summarizes the results of efforts to fully identify, address, and resolve project-related issues through early and continuing coordination. Consultation with several agencies occurred in conjunction with preparation of the technical reports and this IS/EA prepared for this proposed project. These agencies are identified in the various technical reports and include the Native American Heritage Commission, Transportation Working Group, the United States Fish and Wildlife Service, and the California Department of Fish and Wildlife.

Public Review of the Environmental Document

The public review period for the Draft IS/EA was from December 4, 2017 to January 4, 2018. The document and a Notice of Completion were distributed to the State Clearinghouse to be forwarded to CEQA Responsible Agencies and public notices were posted and mailed to notify the local public of the proposed project and the opportunity to review the Draft IS/EA. A Notice of Availability of the Initial Study, Notice of Intent to Adopt a Negative Declaration, and Announcement of a Public Hearing were posted at the County of Riverside and City of Palm Desert offices as well as the Palm Desert Library, along with a hard copy of the Draft IS/EA, available for public review. An electronic copy of the document was made available on the County of Riverside and Caltrans' websites. The Notice of Availability was also mailed (via USPS mail) directly to all property owners and local residences within 0.25 miles of the project area. Mailers were also sent to other interested parties, local utilities, local, regional and state elected officials, and anyone that had previously requested project information. The Notice of Availability was also posted in two local newspapers: the Desert Sun (in English) on December 6, 2017 and El Informador (in Spanish) on December 7, 2017. A copy of this Notice of Availability in both English and Spanish is included in Appendix H Notices.

A Public Hearing was held at the City of Palm Desert City Hall (73-510 Fred Waring Drive, Palm Desert) on December 19, 2017 from 5:30-7:30pm. A total of 20 individuals attended the public hearing which was held in an "open house" format. During the hearing, participants had the opportunity to visit the various stations (e.g. environmental, preliminary design, right-of-way), view project exhibits, and direct question to the project team members at each station. A certified court reporter was present during the open house to take verbal comments from participants. Two such verbal comments were received and are included in Appendix I Public Comments and Responses. Participants were also encouraged to submit their comments in writing during the public hearing, via mail, or by email by the public circulation end date. No formal action or decision was made at this meeting and in general, members of the public were most interested in how the project would affect their personal property. A few participants expressed verbal support for the project and a few expressed concerns or opposition, but most were present to get questions answered and to obtain more information.

A total of seven comments were received from the general public as well as local, regional, and state agencies during the public review period. These comments along with written responses are included in Appendix I.

Consultation and Coordination with Public Agencies

US Fish and Wildlife Service

A species list identifying threatened, endangered, and proposed species, designated critical habitat, and candidate species was provided by USFWS to Caltrans for the 2007 Natural Environment Study. In an email sent by Caltrans to USFWS on June 29, 2011, an updated species list for the 2011 Natural Environment Study was requested. USFWS provided a response via email on August 9, 2011, stating the species list provided in 2006 was still valid, except for the Palm Springs round-tailed squirrel, which was removed from the species list in November 2010. The USFWS species list has since been updated for this project via the automated service on the USFWS webpage, most recently on March 13, 2018. The USFWS species list is located in Chapter 3 – Resource Agency Correspondence below.

Coachella Valley Water District

In December of 2016, Riverside County was notified by the Coachella Valley Water District (CVWD) that new floodplain mapping had been released which could affect the hydrology associated with the proposed I-10/Portola Avenue New Interchange Project.

In response to the new floodplain mapping, Riverside County met with CVWD on February 14, 2017 to discuss the potential floodplain impacts of the I-10/Portola Avenue New Interchange Project. CVWD requested Riverside County prepare a project specific hydraulic analysis to determine potential floodplain impacts. Riverside County prepared the Portola Avenue/I-10 Freeway Interchange Regional Floodplain Hydraulic Impacts/Mitigation Assessment, and presented the findings of this analysis to the CVWD on December 5, 2017. During the meeting CVWD concurred with the findings and provided direction for how the County should proceed with final design. As part of the PS&E phase of the project a “Final” report will be prepared in coordination with CVWD to ensure the 100% PS&E package is consistent with CVWD design requirements.

Transportation Conformity Working Group

- April 26, 2011. Initial meeting with the Southern California Association of Governments Transportation Conformity Working Group (TCWG). Reviewed the project and determined the project is Not a Project of Air Quality Concern (POAQC) and does not require additional air quality hot spot analysis.
- January 27, 2015. Second meeting with the TCWG to provide a project update and request secondary concurrence on project status. TCWG confirmed that the project is not a POAQC and confirmation was received via email that afternoon.

Federal Highway Administration

An Air Quality Conformity Analysis was prepared and submitted to FHWA on February 15, 2018 to request a project-level conformity determination. Caltrans is not allowed to approve the Final IS/EA without the determination by FHWA. Following their review, FHWA provided their project-

level conformity determination for the project in a letter dated March 8, 2018. Appendix G provides a copy of FHWA's letter and the conformity determination for the I-10/Portola Avenue New Interchange Project.

Native American Coordination

The Native American Heritage Commission was contacted on April 14, 2006 and a response was received on May 10, 2006 with a list of Native American contacts from tribes that might have an interest in the project. Consultation letters were sent to each of these contacts in November of 2006 (16 individuals representing 10 groups) and follow up phone calls were made between December 2006 and April 2007 to provide a diligent attempt at establishing contact. As part of the 2017 Third Supplemental HPSR, the Native American Heritage Commission was contacted again on May 15, 2017, and a response was received on May 17, 2017 with an updated list of Native American contacts. Caltrans District 8 Native American Coordinator, Gary Jones, stated that only the Cahuilla groups on the list should be contacted. These groups were notified by letter on May 31, 2017 to update them on the project's status. Follow-up phone calls were placed in June 2017. Two parties responded with letters requesting consultation and recommending Native American Monitors be present during construction. Caltrans responded via email on November 27, 2017 stating that due to a lack of known or likely cultural resources, they do not support the use of cultural monitoring during construction. A complete list of this consultation effort is provided in Table 3.1.

Several Native American parties responded during the initial round of coordination requesting Native American Monitoring during construction; however, responses were provided via email and telephone on March 22, 2007, citing the policy for Native American monitors. During the subsequent round of coordination, Native American groups responded requesting Native American Monitoring during construction; however, responses provided via email and telephone citing Caltrans policy for Native American monitors.

Table 3.1: Native American Consultation Summary

Group Contacted	Date of Initial Letter	Response Received from Tribe	Consultation Summary
Agua Caliente Band of Cahuilla Indians, Richard Begay, THPO Director, Cahuilla	December 6, 2006	A letter response dated 12/13/06 was received from Mr. Begay. The letter requested copies of all cultural resource documentation and the presence of an approved Cultural Resource Monitor during all ground disturbing activities.	March 22, 2007: A voicemail was left for Mr. Begay detailing the Caltrans statement that they do not support the Tribe's monitoring recommendation. April 9, 2007: Caltrans' statement that they do not support the Tribe's monitoring recommendation was forwarded to Mr. Begay by email. No response has been received to date.
Agua Caliente Band of Cahuilla Indians, Patricia Garcia-Plotkin, THPO, Cahuilla	Updated letter mailed May 31, 2017	A letter dated 6/22/17 was received via email from Hannah Feeney that stated the Agua Caliente Band of Cahuilla Indians (ACBCI) noted the presence of cultural resources within the area. The ACBCI requested a copy of the record search, a copy of the cultural resources inventory report generated by this project, and an approved Native American Monitor be present during ground disturbing activity.	GIS data and mapping was sent to Hannah Feeney on August 3, 2017. An email was sent to Hannah Feeney on November 27, 2017 stating the following: "The only Native American cultural resource previously identified in records searches within a 1.0 mile radius of the Area of Potential Effects (APE) are 1) CA-RIV-4729 located ¾ miles north of the APE, and 2) one isolated mano, P-33-15431, originally recorded within the APE in 2006 as part of the powerline survey. Subsequent surveys of the APE in 2010 and 2017 did not relocate the mano, nor did they identify any other indication of the presence of cultural resources in the APE. Considering the negative results of subsequent Phase I field surveys for the proposed project APE, Caltrans, on behalf of the FHWA, does not support the use of an archaeologist or Native American monitor for this project. If the Agua Caliente has a concern with regard to specific intact cultural resources within or adjacent to the project APE, we will be happy to take that into consideration."
Alvino Siva, Cahuilla	December 6, 2006	No response received.	January 4, 2007: Mr. Siva recommends monitoring during construction. March 22, 2007: Mr. Siva was contacted again by phone regarding his recommendation for monitoring. Given the additional information provided, Mr. Siva concurs with Caltrans that monitoring is not necessary, but would like to be notified if any cultural material is discovered during the course of the project.

Table 3.1: Native American Consultation Summary (continued)

Group Contacted	Date of Initial Letter	Response Received from Tribe	Consultation Summary
Anthony J. Andreas, Jr. Cahuilla	December 6, 2006	Letter returned 1/23/07.	January 4, 2007: Phone call, no answer. January 16, 2007: Phone call, no answer. January 18, 2007: Phone call, no answer.
Augustine Band of Mission Indians, Mary Ann Green, Chairperson, Cahuilla	December 6, 2006	No response received.	January 4, 2007: Left message with administrator. January 16, 2007: Ms. Green has no concerns with this project.
Augustine Band of Mission Indians, Amanda Vance, Chairperson, Cahuilla	Updated letter mailed May 31, 2017	The letter was emailed the same day which stated that the Augustine Band of Cahuilla Indians is unaware of specific cultural resources in the project area. They recommended contacting other Native American groups and individuals. They also encouraged a full time Native American Monitor. They wish to be notified if any cultural resources are discovered during the development of the project.	An email was sent to Chairperson Vance on November 27, 2017 stating the following: "The only Native American cultural resource previously identified in records searches within a 1.0 mile radius of the Area of Potential Effects (APE) are 1) CA-RIV-4729 located ¾ miles north of the APE, and 2) one isolated mano, P-33-15431, originally recorded within the APE in 2006 as part of the powerline survey. Subsequent surveys of the APE in 2010 and 2017 did not relocate the mano, nor did they identify any other indication of the presence of cultural resources in the APE. Considering the negative results of subsequent Phase I field surveys for the proposed project APE, Caltrans, on behalf of the FHWA, does not support the use of an archaeologist or Native American monitor for this project. If the Augustine Band has a concern with regard to specific intact cultural resources within or adjacent to the project APE, we will be happy to take that into consideration."
Cabazon Band of Mission Indians, John A. James, Chairperson, Cahuilla	December 6, 2006	See above response from Judy Stapp; she is the spokesperson regarding cultural resources.	Not applicable.

Table 3.1: Native American Consultation Summary (continued)

Group Contacted	Date of Initial Letter	Response Received from Tribe	Consultation Summary
Cabazon Band of Mission Indians, Judy Stapp, Director of Cultural Affairs, Cahuilla	December 6, 2006	An email response was received on 12/8/16. Ms. Stapp does not have information on the project area; however, an archaeological monitor is requested during ground disturbing activities.	March 22, 2007: Ms. Stapp was contacted by email regarding the Tribes monitoring recommendation. Comments that Caltrans does not support monitoring were forwarded. March 23, 2007: Ms. Stapp emailed to say that the Cabazon Band would like to withdraw their recommendation for monitoring.
Cabazon Band of Mission Indians, Doug Welmas, Chairperson, Cahuilla	Updated letter mailed May 31, 2017	No response received.	June 22, 2017: Left voicemail for Chairperson Welmas. June 29, 2017: Left voicemail Chairperson Welmas.
Cahuilla Band of Indians, Anthony Madrigal Jr./Maurice Chacon, Cahuilla	December 6, 2006	No response received.	January 4, 2007: Mr. Chacon recommends Native American monitoring. The tribe has qualified monitors available. March 22, 2007: A voicemail was left for Mr. Chacon detailing the Caltrans position that they do not support the Tribes monitoring recommendation. April 9, 2007: Caltrans' statement that they do not support the Tribe's monitoring recommendation was forwarded to Mr. Chacon by email. No response has been received.
Cahuilla Band of Indians, Anthony Madrigal Sr.	Updated letter mailed May 31, 2017	No response received.	June 22, 2017: Spoke with Mr. Madrigal who requested a copy of the letter to be emailed to him, which was done 6/22/17. June 29, 2017: Left voice message for Mr. Madrigal

Table 3.1: Native American Consultation Summary (continued)

Group Contacted	Date of Initial Letter	Response Received from Tribe	Consultation Summary
Los Coyotes Band of Mission Indians – Melody Sees, Environmental Director (2006)	December 6, 2006	No response received.	January 4, 2007: Ms. Sees requested the letter be sent again by fax. The letter was faxed 1/4/07. January 16, 2007: Ms. Sees requests monitoring by an archaeologist during construction and would like to be notified if anything is found. March 22, 2007: A message was left with an administrator regarding Caltrans' position that they do not support the Tribe's monitoring recommendation. April 9, 2007: Caltrans' statement that they do not support the Tribe's monitoring recommendation was forwarded to Ms. Sees by email as directed by the administrator. No response has been received to date.
Los Coyotes Band of Mission Indians, Evelyn Duro, Tribal Administrator, Cahuilla	December 6, 2006	No response received.	January 4, 2007: Ms. Duro has no concerns about the project but referred to Melody Sees. See above.
Los Coyotes Band of Mission Indians, Katherine Saubel, Spokesperson, Cahuilla	December 6, 2006	No response received.	January 4, 2007: Left message with administrator. January 16, 2007: Melody Sees is spokesperson regarding cultural resources.
Los Coyotes Band of Mission Indians – Bernie Pollard, Environmental Director (2017)	Updated letter mailed May 31, 2017	No response received	June 22, 2017: Left voicemail for Mr. Pollard. June 29, 2017: Left voicemail for Mr. Pollard.
Morongo Band of Mission Indians, Britt W. Wilson, Cultural Resource Coordinator, Cahuilla, Serrano	December 6, 2006	An email response was received on 12/8/06. The email made recommendations should cultural resources be present.	Not applicable.

Table 3.1: Native American Consultation Summary (continued)

Group Contacted	Date of Initial Letter	Response Received from Tribe	Consultation Summary
Morongo Band of Mission Indians, Denisa Torres, Cultural Resource Manager, Cahuilla, Serrano	Updated letter mailed May 31, 2017	No response received	June 22, 2017: Left voicemail for Ms. Torres. June 29, 2017: Left voicemail for Ms. Torres.
Ramona Band of Mission Indians – Anthony Largo, Environmental Coordinator, Cahuilla	December 6, 2006	An email response was received from John Gomez on 1/12/2007. Mr. Gomez would like copies of all cultural resources documentation for the tribe to review.	January 4, 2006: Mr. Largo is no longer in this position; referred to John Gomez. Mr. Gomez requested the letter be sent again by fax. The letter was faxed on 1/4/07.
Ramona Band of Mission Indians – John Gomez, Environmental Coordinator, Cahuilla	Updated letter mailed May 31, 2017	No response received	June 22, 2017: Left voicemail for Mr. Gomez. June 29, 2017: Left voicemail for Mr. Gomez.
Santa Rosa Band of Mission Indians, John Marcus, Chairman, Cahuilla	December 6, 2006	No response received.	January 4, 2007: Phone call – Tribe is not aware of any cultural resources in the project area.
Santa Rosa Band of Mission Indians, Steven Estrada, Chairman, Cahuilla	Updated letter mailed May 31, 2017	No response received	June 22, 2017: No answer. June 29, 2017: Left voicemail Chairperson Estrada.
Soboba Band of Luiseño Indians , Joseph Ontiveros, Cultural Resources Department, Cahuilla, Luiseño	Updated letter mailed May 31, 2017	No response received	June 22, 2017: Mr. Ontiveros stated that he wished to defer to the Agua Caliente of Band of Mission Indians and the Torres-Martinez Desert Cahuilla Indians.
Torres-Martinez Desert Cahuilla Indians, Mr. Joe Loya, Cultural Resources Coordinator, Cahuilla	December 6, 2006	No response received.	January 4, 2007: Mr. Loya forwarded the initial letter to William Contreras; he handles all cultural resources coordination. A message was left for Mr. Contreras. January 16, 2007: Left voicemail for Mr. Contreras. January 18, 2007: Mr. Contreras has no concerns with the project.

Table 3.1: Native American Consultation Summary (continued)

Group Contacted	Date of Initial Letter	Response Received from Tribe	Consultation Summary
Torres-Martinez Desert Cahuilla Indians, Alberto Ramirez, Environmental Coordinator, Cahuilla	December 6, 2006	No response received.	January 4, 2007: Mr. Ramirez forwarded the initial letter to William Contreras; he handles all cultural resources coordination. A message was left for Mr. Contreras. January 16, 2007: Left voicemail for Mr. Contreras. January 18, 2007: Mr. Contreras has no concerns with the project.
Torres-Martinez Desert Cahuilla Indians, Michael Mirelez, Cultural Resources Manager, Cahuilla	Updated letter mailed May 31, 2017	No response received	June 22, 2017: Mr. Mirelez requested a copy of the letter as well as copies of the cultural reports. The letter was emailed to him on 6/22/17 and the cultural reports were mailed XXXX
Samuel H. Dunlap, Gabrieleno, Cahuilla, Luiseno	December 6, 2006	No response received.	Mr. Dunlap has no concerns regarding this project.
Source: Historic Property Survey Report 2007, Third Supplemental Historic Property Survey Report 2017			

Resource Agency Correspondence

Included on the following pages is a record of resource agency correspondence including the following:

- March 13, 2018 USFWS Species Letter
- April 26, 2011 Transportation Conformity Working Group Determination
- January 27, 2015 Transportation Conformity Working Group Determination

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: 08ECAR00-2018-SLI-0681
Event Code: 08ECAR00-2018-E-01533
Project Name: I-10/Portola Avenue New Interchange Project

March 13, 2018

Subject: 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: 08ECAR00-2018-SLI-0681

Event Code: 08ECAR00-2018-E-01533

Project Name: I-10/Portola Avenue New Interchange Project

Project Type: TRANSPORTATION

Project Description: The project proposes the construction of a new interchange on interstate 10 at Portola Avenue in the City of Palm Desert, California.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/33.79602726499728N116.36873862278671W

Counties: Riverside, CA

Endangered Species Act Species

There is a total of 9 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. 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.

Mammals

NAME	STATUS
Peninsular Bighorn Sheep *Ovis canadensis nelsoni* Population: Peninsular CA pop. There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4970	Endangered

Birds

NAME	STATUS
Least Bell's Vireo *Vireo bellii pusillus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered

Reptiles

NAME	STATUS
Coachella Valley Fringe-toed Lizard *Uma inornata* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2069	Threatened
Desert Tortoise *Gopherus agassizii* Population: Wherever found, except AZ south and east of Colorado R., and Mexico There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4481	Threatened

Fishes

NAME	STATUS
Desert Pupfish *Cyprinodon macularius*	Endangered

There is **final** critical habitat for this species. Your location is outside the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/7003

Insects

NAME	STATUS
Casey's June Beetle *Dinacoma caseyi*	Endangered

There is **final** critical habitat for this species. Your location is outside the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/4897

Flowering Plants

NAME	STATUS
Coachella Valley Milk-vetch *Astragalus lentiginosus var. coachellae*	Endangered

There is **final** critical habitat for this species. Your location is outside the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/7426

Triple-ribbed Milk-vetch *Astragalus tricarinatus*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/3370

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Source: Southern California Association of Governments. 2015. PM Hot Spot Analysis Project Lists. http://www.scag.ca.gov/programs/Pages/ProjectLevel.aspx. Accessed October 2016.

Source: Southern California Association of Governments. 2015. PM Hot Spot Analysis Project Lists. http://www.scag.ca.gov/programs/Pages/ProjectLevel.aspx. Accessed October 2016.

Chapter 4 – List of Preparers

California Department of Transportation

Illeen Prentiss, Associate Environmental Planner/Generalist

Renetta Cloud, Senior Environmental Planner – Environmental Studies A

Maggi Elgeziry, Associate Environmental Planner, Biological Studies

Craig Wentworth, Senior Environmental Planner, Branch Chief – Biological Studies

Scott Quinnell, Senior Environmental Planner, Branch Chief – Stewardship and Monitoring Branch

Rose Bishop, District Landscape Architect

Christopher Gonzalez, Transportation Engineer Civil, Air Quality

Farhana Islam, Transportation Engineer Civil, Noise

Olufemi Odufalu, Office Chief, Office of Environmental Engineering Oversight

Gary Jones, Associate Environmental Planner, Archaeologist

Andrew Walters, Senior Environmental Planner, Branch Chief – Environmental Cultural Studies

County of Riverside

John Marcinek, P.E., Project Manager

Jan Bulinski, Senior Transportation Planner

City of Palm Desert

Bo Chen, City Engineer

Dokken Engineering

Juann Ramos, P.E., Project Manager

Kris Kofoed, P.E., Design Engineer

Namat Hosseinion, Environmental Manager

Tim Chamberlain, Senior Environmental Planner

Brian Marks, Ph. D. Environmental Planner/Archaeologist

Joseph Madrid, Assistant Engineer

LSA Associates, Inc.

Grant Wilson, AICP, Project Manager

Lynne Calerdine, Project Manager

Riordan Goodwin, Archaeologist

Denise Woodard, Associate/Biologist

Dah-Win Sheu, Landscape Architect

Bollard Acoustics

Paul Bollard, Noise Specialist

Jonathan Lopez, Noise Specialist

Entech Consulting

Michelle Jones, Principle

Joza Burman, Environmental Scientist

VRPA Technologies, Inc.

Jason Ellard, Transportation Engineer (Air Quality Report)

Chapter 5 – Distribution List

A compact disc copy of this Initial Study with Proposed Negative Declaration/Environmental Assessment (IS/EA) and a Notice of Availability was distributed to federal, state, regional, local agencies, utilities and service providers, as well as interested groups, organizations and individuals, and elected officials. Additionally all property owners and occupants within a ¼ mile radius of the project limits were provided the Notice of Availability of the Draft IS/EA.

Agencies and other Interested Parties		
Veronica Chan Project Manager United States Army Corps of Engineers 911 Wilshire Blvd. Los Angeles, CA 90017	Tyler Hull Coachella Valley Water District (CVWD) Utility Coordinator P.O. Box 1058 Palm Springs, CA 92263	Doug Holloway Design Support/UND Southern California Edison Transmission Eastern T/S Div 300 N Pepper Ave Rialto, CA 92376
Karin Cleary-Rose, Chief US Fish and Wildlife Service 777 E. Tahquitz Canyon Way, Suite 208 Palm Springs, CA 92262	California Department of Transportation Division of Env. Analysis Attn: Dan Mckell 1120 N Street, MS 27 Sacramento, CA 95814	Guillermo Barraza Utility Coordinator Imperial Irrigation 81-600 Avenue 58 La Quinta, CA 92253
Michael Krause Program Supervisor South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765	Tim Szto Kinder Morgan Energy Partners/SFPP 1100 Town and Country Rd Orange, CA 92868	Tibor Laky Sprint 2592 Dupont Dr Irvine, CA 92612
Leslie MacNair Acting Regional Manager CDFW, Region 6 3602 Inland Empire Blvd. Suite C-200 Ontario, CA 91764	John Trujillo Level 3 Communications 1025 El Dorado Blvd Bldg 33A-522 Broomfield, CO 80021	Gary Ordway Time Warner Cable Palm Desert 83473 Avenue 45 Indio, CA 92201
Wanda Cross Senior Environmental Scientist Santa Ana Regional Water Quality Control Board 3737 Main Street, Suite 500 Riverside, CA 92501	Dean Boyers MCI (Verizon Business) 2400 N Glenville Richardson, TX 75082	Kim Gurule SC Edison — Telecommunications 14799 Chestnut Ave Westminster, CA 92683
Frontier Communications Network Engineering & Planning 9 South 4th Street Redlands, CA 92373	Frontier Communications 295 N. Sunrise Way Palm Springs, CA 92262	Geary Ambers SC Gas—Palm Desert 1981 W. Lugonia Ave Redlands, CA 92374
Coachella Valley Association of Governments 73-710 Fred Waring Drive, Ste #200 Palm Desert, CA 92260	Agua Caliente Band of Cahuilla Indians Attn: Hannah Feeney 5401 Dinah Shore Drive Palm Springs, CA 92264	Augustine Band of Cahuilla Ind. Attn: William Vance P.O. Box 846 84-481 Avenue 54 Coachella, CA 92236
Nick Vinyard Union Pacific Railroad 2015 S. Willow, Bloomington, CA 92316	Colorado River Regional Water Quality Control Board 73-720 Fred Waring Drive, Suite 100 Palm Desert, CA 92260	

Elected Officials		
Hon. Jan Harnik, Mayor City of Palm Desert 73-510 Fred Waring Drive Palm Desert, CA 92260	Hon. Sabby Jonathan, Mayor Pro Tem City of Palm Desert 73-510 Fred Waring Drive Palm Desert, CA 92260	Hon. Susan Marie Weber, Council Member City of Palm Desert 73-510 Fred Waring Drive Palm Desert, CA 92260
Hon. Kathleen Kelly, Council Member City of Palm Desert 73-510 Fred Waring Drive Palm Desert, CA 92260	Hon. Gina Nestande, Council Member City of Palm Desert 73-510 Fred Waring Drive Palm Desert, CA 92260	Hon. Kevin Jeffries, First District County of Riverside 4080 Lemon Street - 4th Floor Riverside, California 92501
Hon. John F. Tavaglione, Second District County of Riverside 4080 Lemon Street - 4th Floor Riverside, California 92501	Hon. Chuck Washington, Third District County of Riverside 4080 Lemon Street - 4th Floor Riverside, California 92501	Hon. V. Manuel Perez, Fourth District County of Riverside 4080 Lemon Street - 4th Floor Riverside, California 92501
Hon. Marion Ashley, Fifth District County of Riverside 4080 Lemon Street - 4th Floor Riverside, California 92501	Hon. Chad Mayes 42nd Assembly District California State Assembly 41608 Indian Trail, Suite 1 Rancho Mirage, CA 92270	Hon. Jeff Stone 28th Senate District California State Senate 45-125 Smurr Street, Suite B Indio, CA 92201
Hon. Raul Ruiz, M.D. 36th Congressional District United States House of Representatives 43875 Washington Street,Ste F Palm Desert, CA 92211	Hon. Kamala Harris, Senator U.S. Senate P.O. Box 78393 San Francisco, CA 94107	Hon. Dianne Feinstein, Senator U.S. Senate 11111 Santa Monica Blvd. #915 Los Angeles, CA 90025

Property Owners and Residences within ¼ Mile from the Project Area		
Chuck Spinelli 1900 W Northern Lights #200 Anchorage, AK 99517	Evelyn S Mulcahy PO Box 211732 Anchorage, AK 99521	Larry A & Mary J Stewart Russo 210 Saint Anns Ave Douglas, AK 99824
William R & Traci Davis PO Box 67 Kasilof, AK 99610	James P & Leslie F Schwartz PO Box 1506 Petersburg, AK 99833	Richard K Burrell PO Box 1869 Petersburg, AK 99833
John J & Carol A McCabe PO Box 965 Petersburg, AK 99833	Robert E Harris 3600 N Engstrom Rd Wasilla, AK 99654	Sams Real Estate Business Trust C/O Wal Mart Prop Tax Dept MS0555 PO Box 8050 Bentonville, AR 72712
Kimberley Anne Crossen 9093 E Palo Brea Bend #2069 Scottsdale, AZ 85255	Marysville Drive In Theatre Co C/O Randell E Kessler 1000 Marina Village #130 Alameda, CA 94501	Jack Holt 705 N Stoneman Ave #1 Alhambra, CA 91801
Edward K Doerrl 2783 Winrock Ave Altadena, CA 91001	Dinah 20 1831 W Lincoln Anaheim, CA 92801	Shenandoah Ventures 320 N Park Anaheim, CA 92806
Brian D & Gloria B Hale PO Box 18193 Anaheim, CA 92817	Wyeth I Naler 1128 Ranch Point Way Antioch, CA 94531	Joan Patricia Wash 508 Monterey Dr Aptos, CA 95003
Michael A & Patricia Jo Calhoun PO Box 2653 Aptos, CA 95001	James Parkhouse PO Box 2430 Bell Gardens, CA 90202	Timothy L Ellenz 41650 Yucca Ln Bermuda Dunes, CA 92203

Property Owners and Residences within ¼ Mile from the Project Area		
Andrew E Stevens 521 N Alpine Dr Beverly Hills, CA 90210	Freeway Lanes 9777 Wilshire Blv No #900 Beverly Hills, CA 90212	Abram Flory PO Box 4131 Big Bear Lake, CA 92315
Dena & Michael Arbaugh PO Box 7011 Big Bear Lake, CA 92315	Superior Homes PO Box 1078 Bloomington, CA 92316	Trilogy Care Homes Inc PO Box 1370 Capitola, CA 95010
Terence J & Charlotte Flahive 7426 Sitio Montilla Carlsbad, CA 92009	Edmund & Mary A Celaya 29760 Ave La Vista Cathedral City, CA 92234	Millennium Palm Desert Hoa Inc C/O Palm Ventures Pa-1 30875 Date Palm Dr #C Cathedral Cy, CA 92234
Cathy & Jeffrey McCrea 36345 Paseo Del Sol Cathedral Cy, CA 92234	Coachella Valley Water Dist PO Box 1058 Coachella, CA 92236	Gloria L Barr 42654 Deep Forest Dr Coarsegold, CA 93614
T Joe Willey 1649 Walter Ct Colton, CA 92324	Gallery Owners Assn C/O D R Horton Inc /Barbara Murakami 2280 Wardlow Cir #100 Corona, CA 92880	Jack Ivey Ranch Homeowners Assn C/O The Ivey Ranch 170 E 17th St Costa Mesa, CA 92627
Janet Kelley Deberry 1010 Secretariat Cir Costa Mesa, CA 92626	James R & Corinne D Leinen 461 N Nearglen Ave Covina, CA 91724	Karl R & Catherine S Schumm 827 N Stephora Ave Covina, CA 91724
Juan Manuel & Cynthia Roberta Solares PO Box 6301 Crestline, CA 92325	Ada Zonia Escobar 13130 Julian Dr Desert Hot Spring, CA 92240	Barbara J Graham 9033 Buckles St Downey, CA 90241
Pamela C Dickinson 1363 Ranch Rd Encinitas, CA 92024	Bedrosian Palm Desert C/O Larry E Bedrosian 4285 N Golden State Blv Fresno, CA 93722	Deerfield 24 12447 Lewis St #203 Garden Grove, CA 92840
Paul D Wilkins 350 Burchett St #233 Glendale, CA 91203	Steven M Vilarino 2795 Mira Vista Dr Glendale, CA 91208	Hamlet Davari & Caroline T Davidian 1169 Old Phillips Rd Glendale, CA 91207
Dfi Prop 4120 Douglas Blv #306 Granite Bay, CA 95746	Jack J & Ellen R Volkov 3123 Las Marias Hacienda Heights, CA 91745	Shenandoah Springs Dev Co Inc 7266 Edinger Ave #L Huntington Beach, CA 92647
Ronald T & Pamela S Chavez 6412 Fallingwater Dr Huntington Beach, CA 92647	Wjm Ventures 21542 Surveyor Cir Huntington Beach, CA 92646	Kenneth Jay & Cheryl M Dahleen PO Box 1542 Idyllwild, CA 92549
William M & Dena L Brunskill 77750 Cherokee Rd Indian Wells, CA 92210	Meredith Asher 75497 Painted Desert Dr Indian Wells, CA 92210	BRM Prop C/O Michael J Santin 45455 Pawnee Rd Indian Wells, CA 92210
John & Rebecca Chabot 45564 Big Canyon St Indio, CA 92201	Siria Salomon 80935 Boulder Dr Indio, CA 92201	Majid Family Ltd Partnership C/O Tahir Majid 81709 Dr Carreon No C4 Indio, CA 92201
Frank Halcovich 81161 Indio Blvd Indio, CA 92201	Joseph G Cantele 82889 Millay Ct Indio, CA 92201	Maria Dolores Galindo 79655 Sabrina Ct Indio, CA 92203
Jacqueline B Leon 82126 Vandenberg Dr Indio, CA 92201	Stanley R & Naomi Venable PO Box 62 Indio, CA 92202	Elena C Serda 29 Crimson Rose Irvine, CA 92603

Property Owners and Residences within ¼ Mile from the Project Area		
Monterey Shore Business Park Owners Assn C/O Focus Palm Desert 16485 Laguna Canyon #200 Irvine, CA 92618	R M J F 6789 Quail Hill Pkwy #729 Irvine, CA 92603	Ivey Ranch 18017 Skypark Cir Irvine, CA 92714
Ds Gen 1 Technology Dr #J703 Irvine, CA 92618	Thomas E & Elsie L Hughes 4628 El Camino Corto La Canada Flintri, CA 91011	Elisa Botbyl 4501 Fair Hope Dr La Mirada, CA 90638
Edgar E Rau 52110 Avenida Cortez La Quinta, CA 92253	Linda S White 78636 Bottlebrush Dr La Quinta, CA 92253	Felicidad Abriol Santos 43760 Milan Ct La Quinta, CA 92253
Mason & Kaye Pownall 45190 Seeley Dr #126 La Quinta, CA 92253	Jack Ivey Ranch Homeowners Assn C/O Peggy Redomon PO Box 240 La Quinta, CA 92247	Eric A & Lu Thompson PO Box 998 La Quinta, CA 92247
Rudolph & Janet Schmelka 1815 Genessee Dr La Verne, CA 91750	73802 Palm Desert Partners Building 10 26631 Cabot Rd #B Laguna Hills, CA 92653	Mary E Scott C/O John B Hamblin PO Box 2318 Lancaster, CA 93539
LB/VCC Palm Desert 125 E Sir Francis Drake Larkspur, CA 94939	Sharon King 24630 Eshelman Ave #30 Lomita, CA 90717	Jim Brice 3502 Fanwood Long Beach, CA 90808
David & Charlotte Guerra 140 Linden Ave #955 Long Beach, CA 90802	Southern California Edison Co PO Box 410 Long Beach, CA 90801	Gabriel Perez Marin 1238 E 27th St Los Angeles, CA 90011
Ronnie Blackwell 5039 W 58th Pl Los Angeles, CA 90056	Jerry & Noreen Myman 233 Barlock Ave Los Angeles, CA 90049	Verna Suarez 13442 Bayliss Rd Los Angeles, CA 90049
Elaine F Dirienzo 2347 Fox Hills Dr #304 Los Angeles, CA 90064	Mark D & Birute K Milliron 6655 Kentwood Bluffs Dr Los Angeles, CA 90045	Rj Ventures C/O Stanley G Rothbart 10990 Wilshire Blvd #10 Los Angeles, CA 90024
Gid Monterey C/O Joseph Rivani 3470 Wilshire Blv No #1020 Los Angeles, CA 90010	Rodney D & Sharon L Mills 729 Henson Ct Marina, CA 93933	Platinum Prop Partners Vii PO Box 4454 Mission Viejo, CA 92690
Cynthia Ann Olson 61900 Indian Hills Rd Mountain Center, CA 92561	Robyn S & Roberta G Ritchey 59363 Hop Patch Springs Mtn Center, CA 92561	Dennis D & J Elaine Miller 59905 Horse Canyon Dr Mtn Center, CA 92561
William Burke Dostert 3419 Via Lido No #128 Newport Beach, CA 92663	Building 14 At Monterey 10 Prop Owners Assn C/O Pres Monterey I 4300 Von Karman Ave Newport Beach, CA 92660	Kristine M & Mary Jane Pilat 35 Chandon Newport Coast, CA 92657
David J & Robin Kay Weaver 1475 Puritan Dr Oceanside, CA 92057	J & Evelyn L Stupy 700 E Lake Dr #139 Orange, CA 92866	Peter J & Amy E Gimino 6878 E Monaco Pkwy Orange, CA 92867
Roberto & Edrina Mendez 45705 Abronia Trl Palm Desert, CA 92260	D & Y Dev 74064 Aster Dr Palm Desert, CA 92260	Richard L & Marilyn J Blair 340 Bright Rock Dr Palm Desert, CA 92211
Joanne Held 74224 Catalina Way Palm Desert, CA 92260	Garry H Sage 73761 Cezanne Dr Palm Desert, CA 92211	Arthur H & Kathleen E Barnett 73775 Cezanne Dr Palm Desert, CA 92211

Property Owners and Residences within ¼ Mile from the Project Area		
Patricia Dubose 73789 Cezanne Dr Palm Desert, CA 92211	Clara Smith 73796 Cezanne Dr Palm Desert, CA 92211	Christopher P Naeyaert 73803 Cezanne Dr Palm Desert, CA 92211
Jon Mandl 73817 Cezanne Dr Palm Desert, CA 92211	Terence E & Roberta J Dean 73838 Cezanne Dr Palm Desert, CA 92211	Jan K Merriman 73845 Cezanne Dr Palm Desert, CA 92211
Len Saichaie 73859 Cezanne Dr Palm Desert, CA 92211	Carlos & Norma Serrano 73866 Cezanne Dr Palm Desert, CA 92211	John Maestri 73887 Cezanne Dr Palm Desert, CA 92260
Patrick H Lucas 73894 Cezanne Dr Palm Desert, CA 92211	Sandra Narouz 73915 Cezanne Dr Palm Desert, CA 92211	Teresa Szabo 73922 Cezanne Dr Palm Desert, CA 92211
Gallery Owners Assn 36953 Cook St #101 Palm Desert, CA 92211	Pacific Falls 74130 Country Club Dr #101 Palm Desert, CA 92260	Christina L Kamp 73812 Da Vinci Ct Palm Desert, CA 92211
Ida A Nieuwenhuizen 73819 Da Vinci Ct Palm Desert, CA 92211	Mark Andrew & Leyla Pierce 73847 Da Vinci Ct Palm Desert, CA 92211	Miguel Gonzalez 73804 Dinah Shore Dr Palm Desert, CA 92211
La Quinta Covenant Church C/O Cornerstone Church Of La Quinta 73350 El Paseo No #201 Palm Desert, CA 92260	S&W Inv Group 73301 Fred Waring #200 Palm Desert, CA 92260	City Of Palm Desert 73510 Fred Waring Dr Palm Desert, CA 92260
Spyder Circle Assoc 73301 Fred Waring No #200 Palm Desert, CA 92260	Nft Parcel C 34360 Gateway Dr Palm Desert, CA 92211	Patricia M Odonnell 38376 Gazania Cir Palm Desert, CA 92211
Jonathon & Sidney L Johnson 73241 Highway 111 No #4b Palm Desert, CA 92260	Ram Industrial Prop 71648 Jaguar Way Palm Desert, CA 92260	Gordon W Ferren 41641 Kansas St Palm Desert, CA 92276
Lorne Haakonson 39061 Kilimanjaro Ct Palm Desert, CA 92211	Stephanie Dawn Stevens 35565 Luna Ct Palm Desert, CA 92211	Gallery Owners Assn C/O Ponderosa Homes Inc 42635 Melanie Pl #103 Palm Desert, CA 92211
Karl Hillway 74427 Millennia Way Palm Desert, CA 92211	Nerces & Sarianne Zeitounian 74431 Millennia Way Palm Desert, CA 92211	Harry Raymond & Casilda Deleon Webb 74434 Millennia Way Palm Desert, CA 92211
Michael Joseph & Jane Berardini 74442 Millennia Way Palm Desert, CA 92211	Rodney L & Rayla D Silvagni 74450 Millennia Way Palm Desert, CA 92211	Joel P Gibbons 74454 Millennia Way Palm Desert, CA 92211
Stephen G Little 74458 Millennia Way Palm Desert, CA 92211	John David Reese 74462 Millennia Way Palm Desert, CA 92211	Shahriar Shahram 74470 Millennia Way Palm Desert, CA 92211
Jessica L Perrotte 73853 Mondrian Pl Palm Desert, CA 92211	Shoaib & Cynthia Rashid 73867 Mondrian Pl Palm Desert, CA 92211	Mohamad Khaldoun Alnabelsi 73881 Mondrian Pl Palm Desert, CA 92211
David L Domenici 73895 Mondrian Pl Palm Desert, CA 92211	Francisco David 73909 Mondrian Pl Palm Desert, CA 92211	Douglas & Theresa Crevling 73923 Mondrian Pl Palm Desert, CA 92211
Morgan & Christian Dasilva Pita 73930 Mondrian Pl Palm Desert, CA 92211	Jonathan Enos 73937 Mondrian Pl Palm Desert, CA 92211	Teg G & Lisa J Diffey 73951 Mondrian Pl Palm Desert, CA 92211

Property Owners and Residences within ¼ Mile from the Project Area		
Miguel & Joann Quitilen 73972 Mondrian Pl Palm Desert, CA 92211	Sunshine Reyes 73979 Mondrian Pl Palm Desert, CA 92211	Lester D & Naomi Yoshinaga Padilla 73993 Mondrian Pl Palm Desert, CA 92211
Marlorkand 43585 Monterey Ave #1 Palm Desert, CA 92260	Kathleen A Hartman 74321 Old Prospector Trl Palm Desert, CA 92260	Neal & Cynthia Tauferner 73638 Picasso Dr Palm Desert, CA 92211
Dino & Mimi Leung 73652 Picasso Dr Palm Desert, CA 92211	Joseph Brian & Jennifer Beth Edmonds 73666 Picasso Dr Palm Desert, CA 92211	Debra L Bertram 73680 Picasso Dr Palm Desert, CA 92211
Hussein & Anita Albaghli 73694 Picasso Dr Palm Desert, CA 92211	Phi Q Lam 73708 Picasso Dr Palm Desert, CA 92211	Ocie & Ernestine Wesley 73722 Picasso Dr Palm Desert, CA 92211
Edward Craig & Arline Edward Mues 73750 Picasso Dr Palm Desert, CA 92211	Clifford J McNamara 73806 Picasso Dr Palm Desert, CA 92211	Harold Michael Eglinski 73820 Picasso Dr Palm Desert, CA 92211
Emma R Tesoro 73827 Picasso Dr Palm Desert, CA 92211	City Of Palm Desert 45275 Prickley Pear Ln Palm Desert, CA 92260	David & Michelle Liptz 35747 Raphael Dr Palm Desert, CA 92211
Joseph S McKell 35761 Raphael Dr Palm Desert, CA 92211	Joan D Swope 35782 Raphael Dr Palm Desert, CA 92211	Nancy L Volk 35796 Raphael Dr Palm Desert, CA 92211
Monica & Ethan Camargo 35810 Raphael Dr Palm Desert, CA 92211	Salvador & Judy L Duarte 35817 Raphael Dr Palm Desert, CA 92211	Gregory & Kim Lawson 35824 Raphael Dr Palm Desert, CA 92211
Abraham & Mary E Ayala 35838 Raphael Dr Palm Desert, CA 92211	McNamara Dana Jill Trust 35845 Raphael Dr Palm Desert, CA 92211	Matthew & Whitney Rosam 35852 Raphael Dr Palm Desert, CA 92211
Howard & Denise Jacobs 35859 Raphael Dr Palm Desert, CA 92211	Joseph Franklin Nelson 35866 Raphael Dr Palm Desert, CA 92211	Brandon Bandera 35880 Raphael Dr Palm Desert, CA 92211
Alfonso C & Ortencia Z Roger 35887 Raphael Dr Palm Desert, CA 92211	Francine Kitchen 35894 Raphael Dr Palm Desert, CA 92211	Hugh R & Morag Cousins 35901 Raphael Dr Palm Desert, CA 92211
Diana Kay & Leland B Faugno 35908 Raphael Dr Palm Desert, CA 92211	David Marshall Hughes 35915 Raphael Dr Palm Desert, CA 92211	Jose Vargas 35922 Raphael Dr Palm Desert, CA 92211
George Brent Aguilar 35929 Raphael Dr Palm Desert, CA 92211	Drew J & Cynthia C Davis 35943 Raphael Dr Palm Desert, CA 92211	Brandon Burk 35950 Raphael Dr Palm Desert, CA 92211
Jeanne Rosales 73816 Rivera Ct Palm Desert, CA 92211	Joseph R Panaccione 73830 Rivera Ct Palm Desert, CA 92211	Charles Wayne & Marcia Martin 73929 Rubens Ln Palm Desert, CA 92211
Joseph Robert & Katerina Adeline Skrajewski 73943 Rubens Ln Palm Desert, CA 92211	Romeo B & Rosabella F Canonizado 73957 Rubens Ln Palm Desert, CA 92211	David Beale 281 San Vicente Cir Palm Desert, CA 92260
Sasha & Zorica Novakovic 44781 Santa Anita Ave Palm Desert, CA 92260	Ulf & Oleta C Strandjord 72788 Sierra Vista Rd Palm Desert, CA 92260	Imelda Armendariz Martin 74509 Tesla Dr Palm Desert, CA 92211

Property Owners and Residences within ¼ Mile from the Project Area		
Joe & Laurie A Kay 74523 Tesla Dr Palm Desert, CA 92211	Michael C & Krista Burris Kim 74530 Tesla Dr Palm Desert, CA 92211	David Allen & Tracy Christine Darrin 74537 Tesla Dr Palm Desert, CA 92211
Manishkumar S & Shereen Patel 137 Traviso Dr Palm Desert, CA 92211	Serena Ho 73824 Van Gogh Dr Palm Desert, CA 92211	Stacy & Mynor Porras 73831 Van Gogh Dr Palm Desert, CA 92211
Roxanne Lynn Parkins 73852 Van Gogh Dr Palm Desert, CA 92211	Dung Huynh 73866 Van Gogh Dr Palm Desert, CA 92211	John Richard Barker 73880 Van Gogh Dr Palm Desert, CA 92211
Melissa Nieburger 73894 Van Gogh Dr Palm Desert, CA 92211	Dudley E & Lorraine L Moses 73950 Van Gogh Dr Palm Desert, CA 92211	Alberto A & Gracelda A Sarayba 73964 Van Gogh Dr Palm Desert, CA 92211
Robert A & Beverly J Bey 73992 Van Gogh Dr Palm Desert, CA 92211	Jillyn Librea 74514 Xander Ct Palm Desert, CA 92211	Yurey Palisbo 74528 Xander Ct Palm Desert, CA 92211
Esteban & Savannah Alvarado 74542 Xander Ct Palm Desert, CA 92211	Dan & Kathy Arthofer PO Box 10179 Palm Desert, CA 92255	Abk Inv PO Box 13185 Palm Desert, CA 92255
H N & Frances C Berger Foundation PO Box 13390 Palm Desert, CA 92255	Stephen P & Debbi D Thomas PO Box 14347 Palm Desert, CA 92255	David P Madison 1175 Avenida Caballeros Palm Springs, CA 92262
William Reed Garner 1111 E El Conquistador Palm Springs, CA 92262	Jeanine Bowman & Lawrence Thomas Kaleff 4929 Herzog Way Palm Springs, CA 92262	Brenda Sue & Bonnie J Heckenlaible 1982 N Nogales Way Palm Springs, CA 92262
Cheryl P Welsh C/O Lois Gibson 39535 Black Hawk Ct Palmdale, CA 93551	Ryan T & Meghan E Kinslow 1449 Via Coronel Palos Verdes Esta, CA 90274	Michael Stephen & Susan Elizabeth Aparicio PO Box 41502 Pasadena, CA 91114
Brent W & Ami Ducoing 1037 Rashford Dr Placentia, CA 92870	Dorothy E Nakulak 218 San Antonio Cir Placentia, CA 92870	Gallery Owners Assn C/O Ponderosa Homes Inc 6671 Owens Dr Pleasanton, CA 94588
Gallery Owners Assn C/O Becky Shifman 6130 Stoneridge Mall #185 Pleasanton, CA 94588	Ponderosa Homes Ii Inc 6130 Stoneridge Mall Rd Pleasanton, CA 94588	David & Jody Cooper 11742 Ricasoli Way Porter Ranch, CA 91326
Jean Marie Morgan 18821 Salt Lake Pl Porter Ranch, CA 91326	Winport International Holding Co 8 Serrano Way Ranch Mirage, CA 92270	Green Tree Financial Servicing C/O Christy Christensen 9600 Center Ave #160 Rancho Cucamonga, CA 91730
Smithson Prop Holding 34200 Bob Hope Dr Rancho Mirage, CA 92270	Tom & Veronica Schlicht 114 Calle De Las Rosas Rancho Mirage, CA 92270	Denis A Dupuis 22 Champagne Cir Rancho Mirage, CA 92270
Palm Ventures Pa-1 C/O Thomas J Tokheim 38 S Clamcy Ln Rancho Mirage, CA 92270	Palm Desert University Gateway 38 S Clancy Ln Rancho Mirage, CA 92270	T Bird Realty Inc 71330 Highway 111 Rancho Mirage, CA 92270

Property Owners and Residences within ¼ Mile from the Project Area		
Cyprian Fary 749 Inverness Dr Rancho Mirage, CA 92270	Donald Eugene & Michele Renee Carraher 6 Ivy Cir Rancho Mirage, CA 92270	David W Schoede 39740 Kirkwood Ct Rancho Mirage, CA 92270
Ira H Mosley 88 Magdalena Dr Rancho Mirage, CA 92270	Jonathan E & Sabrina M Eaton 9 Mount San Jacinto Cir Rancho Mirage, CA 92270	Gino Scopesi 4 Radcliffe Ct Rancho Mirage, CA 92270
Leslie Husted Cree PO Box 25 Rancho Mirage, CA 92270	Matthew V & Linda Johnson PO Box 754 Rancho Mirage, CA 92270	Willard Clampitt PO Box 1796 Rialto, CA 92377
Jeanette Glidewell 4186 Rees St Riverside, CA 92504	Sycamore Iii 1325 Spruce St #100 Riverside, CA 92507	County Of Riverside PO Box 1180 Riverside, CA 92502
Edward L & Pamela G Majors PO Box 2948 Running Springs, CA 92382	James Brian & Deborah Karen Harber 1880 Riverview Dr San Bernardino, CA 92408	Ronald E & Mary E Poulin 3702 Mount Abbey Ave San Diego, CA 92111
Donald S & Mari C Peterson 1235 Parker Pl #3e San Diego, CA 92109	Integrity Capital Fund I 11300 Sorrento Valley #103 San Diego, CA 92121	Integrity Capital Shenandoah C/O Denise Iverson 10251 Vista Sorrento #200 San Diego, CA 92121
Wells Fargo Bank C/O Ron Rosano 430 Bayshore Blv San Francisco, CA 94124	Jesus F & Glendy Ortiz 5336 N Delta St San Gabriel, CA 91776	Snigdha Manukonda 251 Brandon St #215 San Jose, CA 95134
Aileen G Houghton C/O Aileen G Houghton 55 Broad St #255a San Luis Obispo, CA 93405	University Plaza Corp C/O Jerry Williams PO Box 1154 San Luis Obispo, CA 93406	Robert A & Kathleen L Seymour PO Box 331 Santa Clara, CA 95052
Carole Sue Burch 505 Idaho Ave #11 Santa Monica, CA 90403	Scholl Helen J Estate Of C/O Rose G Canyon 5416 E Aurelia St Simi Valley, CA 93063	Leslie Loder 2077 N Justin Ave Simi Valley, CA 93065
Ariana A Nguyen 1552 Patricia Ave #439 Simi Valley, CA 93035	Garth T & Katherina L Nel 349 Sinaloa Rd Simi Valley, CA 93065	Brent Dill PO Box 1269 Summerland, CA 93067
Dennis Meloy 73579 Algonquin Pl Thousand Palms, CA 92276	Michael Lawler 35211 Bandana Rd Thousand Palms, CA 92276	Patricia Saleh 35220 Bandana Cir Thousand Palms, CA 92276
Robert & Ruth Picone 35225 Bandana Cir Thousand Palms, CA 92276	Clark Sanders 35239 Bandana Rd Thousand Palms, CA 92276	Times Up C/O James Rowan 33253 Barcelona Dr Thousand Palms, CA 92276
Bruce R & Jeanna VanBrocklin 33361 Barcelona Dr Thousand Palms, CA 92276	Eugene Heintz 33373 Barcelona Dr Thousand Palms, CA 92276	Michael W Sheffield 33385 Barcelona Dr Thousand Palms, CA 92276
Harold G & Dolly L Cashion 33390 Barcelona Dr Thousand Palms, CA 92276	Robert J & Danelle J Bilotta 33397 Barcelona Dr Thousand Palms, CA 92276	Janet M Torgerson 33447 Barcelona Dr Thousand Palms, CA 92276
John C & Janell Benzinger Braatz 33459 Barcelona Dr Thousand Palms, CA 92276	David & Jan Spurgeon 33460 Barcelona Dr Thousand Palms, CA 92276	Harve David & Doris Louise Rosenthal 33483 Barcelona Dr Thousand Palms, CA 92276

Property Owners and Residences within ¼ Mile from the Project Area		
Arlene McDonald 33495 Barcelona Dr Thousand Palms, CA 92276	Elizabeth Burke 33500 Barcelona Dr Thousand Palms, CA 92276	Sally C Baldwin 33507 Barcelona Dr Thousand Palms, CA 92276
Helen Dorothy Morrison 33520 Barcelona Dr Thousand Palms, CA 92276	Richard B & Carole A Foster 33560 Barcelona Dr Thousand Palms, CA 92276	Arlene & Laurence J VanWinkle 33570 Barcelona Dr Thousand Palms, CA 92276
Corbett D & Diane E Bagley 73468 Boca Chica Tr Thousand Palms, CA 92276	Lynda Dailey 73472 Boca Chica Tr Thousand Palms, CA 92276	Judith R Hutter Vondetjen 73540 Boca Chica Tr Thousand Palms, CA 92276
Donald G Perugini 73560 Boca Chica Tr Thousand Palms, CA 92276	John Pimm 73610 Boca Chica Tr Thousand Palms, CA 92276	Mary A Smolik 73630 Boca Chica Tr Thousand Palms, CA 92276
Ann L Knapp 73660 Boca Chica Tr Thousand Palms, CA 92276	Selby Dickinson Joyner 35201 S Border Thousand Palms, CA 92276	Kevin L Manning 35411 S Border Thousand Palms, CA 92276
Barbara J Welt 73081 Broadmoor Dr Thousand Palms, CA 92276	Jose C & Maria G Perez 73105 Broadmoor Dr Thousand Palms, CA 92276	Emily Trainor 73127 Broadmoor Dr Thousand Palms, CA 92276
Donald Loewe 73161 Broadmoor Dr Thousand Palms, CA 92276	Anna Maria Ridgway 73181 Broadmoor Dr Thousand Palms, CA 92276	Stevanna A Collins 73191 Broadmoor Dr Thousand Palms, CA 92276
George H & Joan L Guckel 73211 Broadmoor Dr Thousand Palms, CA 92276	Shirley Hartley 73281 Broadmoor Dr Thousand Palms, CA 92276	Marceline Rae Ericksen 73301 Broadmoor Dr Thousand Palms, CA 92276
Maurice N & Lucille M Garneau 73325 Broadmoor Dr Thousand Palms, CA 92276	Michael D Stauf 73337 Broadmoor Thousand Palms, CA 92276	Nancy P & Mickey J Day 73349 Broadmoor Dr Thousand Palms, CA 92276
Frank P & Petra P Hernandez 73355 Broadmoor Dr Thousand Palms, CA 92276	Gary S & Virginia L Gustafson 73371 Broadmoor Dr Thousand Palms, CA 92276	Steven Searles 73383 Broadmoor Dr Thousand Palms, CA 92276
Marles D & Dawn McDonald 35422 Canteen Thousand Palms, CA 92276	Louis & Helene Vallentiny 35423 Canteen Thousand Palms, CA 92276	Louis R & Bettie J Poirier 35442 Canteen Thousand Palms, CA 92276
Raymond V & Donna L Ebert 35473 Canteen Thousand Palms, CA 92276	Pamela Pacheco 35482 Canteen Thousand Palms, CA 92276	Joan Florence Robertson 35502 Canteen Thousand Palms, CA 92276
Linda Lou Lovell 35503 Canteen Thousand Palms, CA 92276	Lesley G Lee 35522 Canteen Thousand Palms, CA 92276	John W Bell 35523 Canteen Thousand Palms, CA 92276
Thomas J & Luisa Bronson 35542 Canteen Thousand Palms, CA 92276	Joanne R Marean 35562 Canteen Thousand Palms, CA 92276	Donald J & Kathryn A Oren 35573 Canteen Thousand Palms, CA 92276
Pamela Carlson 33428 Carlsbad Cir Thousand Palms, CA 92276	Howard H Metzler 33440 Carlsbad Cir Thousand Palms, CA 92276	Charles V & Carole F Johnson 33465 Carlsbad Cir Thousand Palms, CA 92276
James P Lorang 33490 Carlsbad Cir Thousand Palms, CA 92276	Mary Anna Jones 33492 Carlsbad Cir Thousand Palms, CA 92276	Harry D & Katrina Goett 33494 Carlsbad Cir Thousand Palms, CA 92276
Robert G & Margaret M Tellkamp 33496 Carlsbad Cir Thousand Palms, CA 92276	Kenneth C & Carole S Bell 33500 Carlsbad Cir Thousand Palms, CA 92276	Samuel S & Thelma M Bable 33530 Carlsbad Cir Thousand Palms, CA 92276

Property Owners and Residences within ¼ Mile from the Project Area		
Susan Bailey Perito 33533 Carlsbad Cir Thousand Palms, CA 92276	Walter Ricardo & Ana Maria Obrien 33550 Carlsbad Cir Thousand Palms, CA 92276	Kenneth J Hines 33555 Carlsbad Cir Thousand Palms, CA 92276
Charles J Deckard 33577 Carlsbad Cir Thousand Palms, CA 92276	Karen Raye Magruder 33101 Deane Cir Thousand Palms, CA 92276	Karin L Bryant 33120 Deane Cir Thousand Palms, CA 92276
Stephanie Harris 33130 Deane Cir Thousand Palms, CA 92276	Cynthia R Vaughan 33918 Drifting Sands Cir Thousand Palms, CA 92276	John & Laurie McRae 33933 Drifting Sands Cir Thousand Palms, CA 92276
Geraldine Kelly 74628 Gaucho Way Thousand Palms, CA 92276	John W & Valerie L Lotz 74629 Gaucho Way Thousand Palms, CA 92276	Stephen & Carole Meacham 74635 Gaucho Way Thousand Palms, CA 92276
Louis P & Josie Fiore 74636 Gaucho Way Thousand Palms, CA 92276	David P & Yvonne W Slater 74642 Gaucho Way Thousand Palms, CA 92276	Henry H & Elvia Galvan 74651 Gaucho Way Thousand Palms, CA 92276
William M & Joan M Cameron 74656 Gaucho Way Thousand Palms, CA 92276	Otis R Norman 74664 Gaucho Way Thousand Palms, CA 92276	Richard E & Nicki D Friesendorf 74678 Gaucho Way Thousand Palms, CA 92276
Sharon T & Corwyn James Sundeen 74684 Gaucho Way Thousand Palms, CA 92276	Salve Hurley 74690 Gaucho Way Thousand Palms, CA 92276	Martin & Beryl Parsons 33150 Laredo Cir Thousand Palms, CA 92276
Lori Curtis 33151 Laredo Cir Thousand Palms, CA 92276	John E & Hannelore Brett 33161 Laredo Cir Thousand Palms, CA 92276	Christine M Viau 33181 Laredo Cir Thousand Palms, CA 92276
Marie Oexner Garcia 33204 Laredo Cir Thousand Palms, CA 92276	William M & Karla Wilson 33220 Laredo Cir Thousand Palms, CA 92276	Donald N Powell 33221 Laredo Cir Thousand Palms, CA 92276
Patricia Evelyn & Luke Vincent Salerno 33230 Laredo Cir Thousand Palms, CA 92276	Angelo Michael Ferrara 33599 Laura Dr Thousand Palms, CA 92276	Clarence J & Esther J Petersen 35360 Mexico Way Thousand Palms, CA 92276
Georgia Franklin Anderson 35380 Mexico Way Thousand Palms, CA 92276	Marvin W & Donna M Mizell 35391 Mexico Way Thousand Palms, CA 92276	John & Patricia L Butch 35430 Mexico Way Thousand Palms, CA 92276
Frank M Sandello 35461 Mexico Way Thousand Palms, CA 92276	Carlton R & Nancy M Taft 35470 Mexico Way Thousand Palms, CA 92276	George H & Linda Kay Galeener 35490 Mexico Way Thousand Palms, CA 92276
Thelma Louise Shouse 35510 Mexico Way Thousand Palms, CA 92276	Howard E & Dora Dee Ingram 35530 Mexico Way Thousand Palms, CA 92276	Robert Gary & Nancy Jean Wolf 35541 Mexico Way Thousand Palms, CA 92276
G Edward Walencewicz 35561 Mexico Way Thousand Palms, CA 92276	Dorothy M Dybalski 35581 Mexico Way Thousand Palms, CA 92276	Robert F Dawson 35590 Mexico Way Thousand Palms, CA 92276
Fidel & Margaret Olivas 35601 Mexico Way Thousand Palms, CA 92276	Michael P & Sandra L Clark 35610 Mexico Way Thousand Palms, CA 92276	Leath Iva Fajaagesund 33914 Palm Lake Cir Thousand Palms, CA 92276
Carol Eve Gooler 33919 Palm Lake Cir Thousand Palms, CA 92276	Joan Chase 33934 Palm Lake Cir Thousand Palms, CA 92276	Walter J Neeld 73250 Puebla Dr Thousand Palms, CA 92276

Property Owners and Residences within ¼ Mile from the Project Area		
Richard M & Gisela M Kindorf 73270 Puebla Dr Thousand Palms, CA 92276	K J Bell 73290 Puebla Dr Thousand Palms, CA 92276	Steven Campbell Fisher 73291 Puebla Dr Thousand Palms, CA 92276
Jack & Mary Springer 73321 Puebla Dr Thousand Palms, CA 92276	Don Miniaci 73341 S Puebla Dr Thousand Palms, CA 92276	Anthony A & Lori Serruta 73350 Puebla Dr Thousand Palms, CA 92276
Patty A Spickelmier 73351 Puebla Dr Thousand Palms, CA 92276	Henry Jangula 73360 Puebla Dr Thousand Palms, CA 92276	Llewellyn Bab Cline 73361 Puebla Dr Thousand Palms, CA 92276
Bethany Ilene Brackett 73380 Puebla Dr Thousand Palms, CA 92276	Edward A Mamath 73385 Puebla Dr Thousand Palms, CA 92276	Allan E & Christina Hopp 73400 Puebla Dr Thousand Palms, CA 92276
Eugene & Jean M Beaird 73420 Puebla Dr Thousand Palms, CA 92276	George L & Suzanne Ladiser 73423 Puebla Dr Thousand Palms, CA 92276	G Marshall & Mary Elaine Pugh 73430 Puebla Dr Thousand Palms, CA 92276
Marilyn S Winter 73437 Puebla Dr Thousand Palms, CA 92276	Charles J & Twyla D Allee 73440 Puebla Dr Thousand Palms, CA 92276	Alicja Barker 73221 San Carlos Dr Thousand Palms, CA 92276
Rod & Kevin R Ledbetter 73230 San Carlos Dr Thousand Palms, CA 92276	Glenda Gibson 73240 San Carlos Dr Thousand Palms, CA 92276	Bernadette Gonzales 73251 San Carlos Dr Thousand Palms, CA 92276
June Perry 73270 San Carlos Dr Thousand Palms, CA 92276	Joseph Michael Moraldi 73271 San Carlos Dr Thousand Palms, CA 92276	Mary C Dulleck 73281 San Carlos Dr Thousand Palms, CA 92276
Verna M Maas 73290 San Carlos Dr Thousand Palms, CA 92276	Barbara McKenney 73301 San Carlos Dr Thousand Palms, CA 92276	Beverly J Lamb 73310 San Carlos Dr Thousand Palms, CA 92276
Anthony D Graham 73321 San Carlos Dr Thousand Palms, CA 92276	Sally & Nancy Clark 73331 San Carlos Dr Thousand Palms, CA 92276	Jeffrey Z Aiken 73350 San Carlos Dr Thousand Palms, CA 92276
Lynn Meyerson 73351 San Carlos Dr Thousand Palms, CA 92276	Jesse M & Lydia A Guzman 73370 San Carlos Dr Thousand Palms, CA 92276	Garrett Thompson 73391 San Carlos Dr Thousand Palms, CA 92276
Darrell M Bender 73411 San Carlos Dr Thousand Palms, CA 92276	Karen E Kurzawinski 33381 San Lucas Trl Thousand Palms, CA 92276	H L & Wanda Oyler 33390 San Lucas Trl Thousand Palms, CA 92276
Mary F Luth 33391 San Lucas Trl Thousand Palms, CA 92276	John Mark White 33411 San Lucas Trl Thousand Palms, CA 92276	Duane C & Bette Swanson 33431 San Lucas Trl Thousand Palms, CA 92276
Jean G & Karen M Chamberland 33441 San Lucas Trl Thousand Palms, CA 92276	Diane M Boyd 33451 San Lucas Trl Thousand Palms, CA 92276	Gregory & Heidi Gustafson 33470 San Lucas Trl Thousand Palms, CA 92276
Richard G Hembling 33471 San Lucas Trl Thousand Palms, CA 92276	Michael J & Monica S Connery 33481 San Lucas Trl Thousand Palms, CA 92276	Beth Mack Castle 33491 San Lucas Trl Thousand Palms, CA 92276
David H & Michelle Hoffman 35211 Sand Rock Rd Thousand Palms, CA 92276	James H Lang 35220 Sand Rock Rd Thousand Palms, CA 92276	Weldon Michael & Patricia Ann Jenkins 35223 Sand Rock Rd Thousand Palms, CA 92276
John C & Betty E Silva 35351 Sand Rock Rd Thousand Palms, CA 92276	Richard B Peebles 35373 Sand Rock Rd Thousand Palms, CA 92276	William C Whipple 35399 Sand Rock Rd Thousand Palms, CA 92276

Property Owners and Residences within ¼ Mile from the Project Area		
Paul F Evers 35415 Sand Rock Rd Thousand Palms, CA 92276	Gerald P & Vera Campbell 35426 Sand Rock Rd Thousand Palms, CA 92276	Ronald Wrobel 35447 Sand Rock Rd Thousand Palms, CA 92276
Joann Barnes 35448 Sand Rock Rd Thousand Palms, CA 92276	Blaise P & Carolyn J Ugolini 35470 Sand Rock Rd Thousand Palms, CA 92276	Michael P & Kelly M Maheu 35471 Sand Rock Rd Thousand Palms, CA 92276
Doris May Olivera 35493 Sand Rock Rd Thousand Palms, CA 92276	Marshall H & Patricia W Deyoung 35494 Sand Rock Rd Thousand Palms, CA 92276	Herman & Carol Ann Avila 35513 Sand Rock Rd Thousand Palms, CA 92276
Judith Peeples McClintic 35518 Sand Rock Rd Thousand Palms, CA 92276	Ben W & Yvonne J Ogle 35550 Sand Rock Rd Thousand Palms, CA 92276	Mark A & Sherri L Halstead 35567 Sand Rock Rd Thousand Palms, CA 92276
Linda Babian 35591 Sand Rock Rd Thousand Palms, CA 92276	Adrienne M McLaughlin 34920 Serenade St Thousand Palms, CA 92276	Augustin S & Peggy G Stucker 34945 Serenade St Thousand Palms, CA 92276
Ray C & Rose L Piedot 34980 Serenade St Thousand Palms, CA 92276	Celeste Monica Moses 34995 Serenade St Thousand Palms, CA 92276	Betty J Criner 35002 Serenade St Thousand Palms, CA 92276
Jane S Smith 35015 Serenade St Thousand Palms, CA 92276	Wendell R & Marion S Cummins 35020 Serenade St Thousand Palms, CA 92276	Gary & Judy Topolinski 35033 Serenade St Thousand Palms, CA 92276
Denise Aymonier Placek 35050 Serenade St Thousand Palms, CA 92276	Dorothy J Buehlman 35055 Serenade St Thousand Palms, CA 92276	Bobby Gene & Sandra Kaye Jacobs 35062 Serenade St Thousand Palms, CA 92276
Gregory & Eva Ulloa Montoya 35075 Serenade St Thousand Palms, CA 92276	Phyllis F Wilcomb 35090 Serenade St Thousand Palms, CA 92276	Gary A & Virginia R Nichols 33912 Shady Palms Cir Thousand Palms, CA 92276
Eugene A & Marilyn D Burke 33937 Shady Palms Cir Thousand Palms, CA 92276	Jay B & Sukja Gee Wilson 35130 South Border Thousand Palms, CA 92276	Richard & Jerry Morgan 35141 South Border Thousand Palms, CA 92276
Carol Love 35150 South Border Thousand Palms, CA 92276	Walter R & Trudy Decaen 35161 South Border Thousand Palms, CA 92276	James H & Marjorie E Litman 35170 South Border Thousand Palms, CA 92276
Glen E & Charlene J Johnson 35190 South Border Thousand Palms, CA 92276	Ricke R & Charlene A Clark 35221 South Border Thousand Palms, CA 92276	Ronald D & Cheri J Sherwin 35241 South Border Thousand Palms, CA 92276
Leatrice Lorraine Sanford 35250 South Border Thousand Palms, CA 92276	Steven R Novotchin 35281 South Border Thousand Palms, CA 92276	Kevin & Susan Lane 35300 South Border Thousand Palms, CA 92276
Martha Maxine Hardacre 35341 South Border Thousand Palms, CA 92276	John C & Janet L Moore 35391 South Border Thousand Palms, CA 92276	Carole J Foster 74518 Stage Line Dr Thousand Palms, CA 92276
Harvey R & Barbara J Schneider 74528 Stage Line Rd Thousand Palms, CA 92276	Stephen Joseph Lagana 74582 Stage Line Dr Thousand Palms, CA 92276	George E & Barbara L Moore 74585 Stage Line Dr Thousand Palms, CA 92276
Kathleen Roberts 74598 Stage Line Dr Thousand Palms, CA 92276	Phil Corvinus 74605 Stage Line Rd Thousand Palms, CA 92276	Patricia Platt 74608 Stage Line Dr Thousand Palms, CA 92276
Danny A & Terri A Walker 74618 Stage Line Dr Thousand Palms, CA 92276	Rebecca A Pearson 74625 Stage Line Dr Thousand Palms, CA 92276	Robert R & Lorraine T Owens 74626 Stage Line Dr Thousand Palms, CA 92276

Property Owners and Residences within ¼ Mile from the Project Area		
David Hutchinson 74633 Stage Line Dr Thousand Palms, CA 92276	Dixie Eckes 74644 Stage Line Dr Thousand Palms, CA 92276	Terry L & Melissa H Kuhns 74651 Stage Line Dr Thousand Palms, CA 92276
Corazon S Grossman 74654 Stage Line Dr Thousand Palms, CA 92276	Alice J Moore 74655 Stage Line Dr Thousand Palms, CA 92276	Harald Bjune 33560 Sun Dance Trl Thousand Palms, CA 92276
Robert C Zilius 33567 Sun Dance Trl Thousand Palms, CA 92276	Norman L & Patricia J Field 33581 Sun Dance Trl Thousand Palms, CA 92276	James C Taylor 33597 Sun Dance Trl Thousand Palms, CA 92276
Bernice M Sweet 33600 Sun Dance Trl Thousand Palms, CA 92276	Gary & Patricia L Hammond 33601 Sun Dance Trl Thousand Palms, CA 92276	Marylou Perlini 33630 Sun Dance Trl Thousand Palms, CA 92276
Grigor & Alice Tritchkov 33631 Sun Dance Trl Thousand Palms, CA 92276	Dwight & Esther I Walker 33647 Sun Dance Trl Thousand Palms, CA 92276	Daniel Szilagyi 33660 Sun Dance Trl Thousand Palms, CA 92276
James L Caulk 35161 Sunshine Dr Thousand Palms, CA 92276	Wanda M Barkley 35179 Sunshine Dr Thousand Palms, CA 92276	Dane B & Lisa D Burge 35197 Sunshine Dr Thousand Palms, CA 92276
Ruby J Lonie 74601 Sweet Well Rd Thousand Palms, CA 92276	Ross & Norma Horst 74611 Sweet Well Rd Thousand Palms, CA 92276	Matty & Esther Carraro 74631 Sweet Well Rd Thousand Palms, CA 92276
James Clifford & Joan F Mann 74641 Sweet Well Rd Thousand Palms, CA 92276	Jean Guy & Lizette G Pelletier 74691 Sweet Well Rd Thousand Palms, CA 92276	Michael J Ashcroft 74711 Sweet Well Rd Thousand Palms, CA 92276
Mattie L Bickham 74671 Sweetwell Rd Thousand Palms, CA 92276	Richard E & Diana P Cessna 33271 Tubac Tr Thousand Palms, CA 92276	Kenneth F Palmer 33351 Tubac Tr Thousand Palms, CA 92276
Inger Gronn 33352 Tubac Tr Thousand Palms, CA 92276	Jason A Tuell 33360 Tubac Tr Thousand Palms, CA 92276	James J & Darleen L Beverage 33370 Tubac Tr Thousand Palms, CA 92276
Larry L & Debie J Dedmon 33380 Tubac Tr Thousand Palms, CA 92276	John E Rimes 33381 Tubac Tr Thousand Palms, CA 92276	Vern & Suzanne Potter 33050 Westchester Dr Thousand Palms, CA 92276
James Taylor 33061 Westchester Dr Thousand Palms, CA 92276	Rodney R Loe 33100 Westchester Dr Thousand Palms, CA 92276	Laura Chamblee 33101 Westchester Dr Thousand Palms, CA 92276
Carlton Barbara Living Trust 33120 Westchester Dr Thousand Palms, CA 92276	Maria Elena Rodriguez 33121 Westchester Dr Thousand Palms, CA 92276	Debbie Deroma 33140 Westchester Dr Thousand Palms, CA 92276
Michael & Teresa Tyler 33141 Westchester Dr Thousand Palms, CA 92276	Billie F Bohner 33180 Westchester Dr Thousand Palms, CA 92276	Amalia Hernandez Diaz 33221 Westchester Dr Thousand Palms, CA 92276
Janice Joseph 33240 Westchester Dr Thousand Palms, CA 92276	Ollie H Baze 33320 Westchester Dr Thousand Palms, CA 92276	Liliana Carmen Pons 33321 Westchester Dr Thousand Palms, CA 92276
Joseph R Sesso 33340 Westchester Dr Thousand Palms, CA 92276	Antonia Nelson 33341 Westchester Dr Thousand Palms, CA 92276	Leroy W & Patricia L Rogers 33361 Westchester Dr Thousand Palms, CA 92276
Susan A Wilson 33380 Westchester Dr Thousand Palms, CA 92276	Ethel E Hooper 33381 Westchester Dr Thousand Palms, CA 92276	Preferred Trust Co 33420 Westchester Dr Thousand Palms, CA 92276
Maria Oilda Hernandez 33441 Westchester Dr Thousand Palms, CA 92276	Don & Denise Johnstone 33480 Westchester Dr Thousand Palms, CA 92276	Dorothy L Wood 33481 Westchester Dr Thousand Palms, CA 92276

Property Owners and Residences within ¼ Mile from the Project Area		
Marcelle McKevitt 33500 Westchester Dr Thousand Palms, CA 92276	Eugene J Moneymaker 33501 Westchester Dr Thousand Palms, CA 92276	James B & Marlene G Larson 33520 Westchester Dr Thousand Palms, CA 92276
Ralph S & Caroline L Responts 33601 Westchester Dr Thousand Palms, CA 92276	Mercedes M Lizarraga Tracy 33660 Westchester Dr Thousand Palms, CA 92276	Karen B Schmidt 33661 Westchester Dr Thousand Palms, CA 92276
Ray P & Theresa I Canchola 33680 Westchester Dr Thousand Palms, CA 92276	Charles J Wolowicz 33701 Westchester Dr Thousand Palms, CA 92276	Lorne Haakonson 33740 Westchester Dr Thousand Palms, CA 92276
Betty L Trbovich 33741 Westchester Dr Thousand Palms, CA 92276	Robert & Valerie Beamer 33760 Westchester Dr Thousand Palms, CA 92276	Von A Johnson 33761 Westchester Dr Thousand Palms, CA 92276
Diane M Carapezzi 33780 Westchester Dr Thousand Palms, CA 92276	Doreen Syme 33781 Westchester Dr Thousand Palms, CA 92276	Mildred Ruth Flax 33820 Westchester Dr Thousand Palms, CA 92276
Norma S Brown 33841 Westchester Dr Thousand Palms, CA 92276	Hazel E & Alan L Brouillette 33861 Westchester Dr Thousand Palms, CA 92276	Jean & Robert Hixson 33900 Westchester Dr Thousand Palms, CA 92276
Vince & Lena Tellez 33921 Westchester Dr Thousand Palms, CA 92276	Carol D Keene 33940 Westchester Dr Thousand Palms, CA 92276	Kyle C Bushnell 33941 Westchester Dr Thousand Palms, CA 92276
Darlene L Sadler 33961 Westchester Dr Thousand Palms, CA 92276	Cyril T Brierley 33970 Westchester Dr Thousand Palms, CA 92276	Kenneth F & Shirley B Redstone 33971 Westchester Dr Thousand Palms, CA 92276
Charles W Brenton 33981 Westchester Dr Thousand Palms, CA 92276	Myrna L Walden 73721 White Sands Dr Thousand Palms, CA 92276	Alan Pearce & Norma Jean Harvey 73731 White Sands Dr Thousand Palms, CA 92276
Kenneth H & Suzanne L Scott 73736 White Sands Dr Thousand Palms, CA 92276	Dick Lux 73761 White Sands Dr Thousand Palms, CA 92276	Patricia A Stours 73771 White Sands Dr Thousand Palms, CA 92276
Bobbye R Hardin 73791 White Sands Dr Thousand Palms, CA 92276	Robert D & Angela M Peterson 73796 White Sands Dr Thousand Palms, CA 92276	Donald Freeland 73801 White Sands Dr Thousand Palms, CA 92276
Patricia Caffrey 73806 White Sands Dr Thousand Palms, CA 92276	Kathryn E Murray 73816 White Sands Dr Thousand Palms, CA 92276	White Sands Inv 73831 White Sands Dr Thousand Palms, CA 92276
Nancy Ann Peckham 73841 White Sands Dr Thousand Palms, CA 92276	Erlinda Iverson 73851 White Sands Dr Thousand Palms, CA 92276	Herbert H & Patricia L Krause 73881 White Sands Dr Thousand Palms, CA 92276
Jerome & Cindy M Ibba 73891 White Sands Dr Thousand Palms, CA 92276	Barbara A Brown 73901 White Sands Dr Thousand Palms, CA 92276	Janet M & Carolyn Billings 73931 White Sands Dr Thousand Palms, CA 92276
Alexander C Sung 73961 White Sands Dr Thousand Palms, CA 92276	Gary W & Boutsabong Brummond 73981 White Sands Dr Thousand Palms, CA 92276	Fred J & Rachel L Graham PO Box 125 Thousand Palms, CA 92276
Cheryl Pansy Ruiz PO Box 264 Thousand Palms, CA 92276	Jack Ivey Ranch Homeowners Assn C/O Ivey Ranch PO Box 547 Thousand Palms, CA 92276	Richard E Marler PO Box 641 Thousand Palms, CA 92276

Property Owners and Residences within ¼ Mile from the Project Area		
Noreen Kay Caswell PO Box 656 Thousand Palms, CA 92276	David B Lewis PO Box 811 Thousand Palms, CA 92276	Stephen D Quick PO Box 981 Thousand Palms, CA 92276
Terence James Butler 35248 Bandana Rd Thousand Palmsana, CA 92276	Guyrun & Marbee Amirghan 33401 Acapulco Trl Thousand Plms, CA 92276	Eugene L Wirsta 33577 Laura Thousand Plms, CA 92276
Patricia S Regan 73431 San Carlos Dr Thousand Plms, CA 92276	John H & Ailene R Estes 74621 Sweetwell Rd Thousand Plms, CA 92276	Jack Ivey Ranch Homeowners Assn C/O Barbara Smith 74580 Varner Rd Thousand Plms, CA 92276
Sharon Marie & Owen James Lawrence PO Box 186 Thousand Plms, CA 92276	Jeffrey C & Lori A Venter 1630 Greenwood Ave Torrance, CA 90503	Patricia R Kelleher 31871 Via Pavo Real Trabuco Canyon, CA 92679
William L & Bonnie J Bath 240 S Prospect Ave Tustin, CA 92680	Pointe Monterey Business Center 2552 Walnut Ave #230 Tustin, CA 92780	Marjorie L Britt 12515 Wedgwood Cir Tustin, CA 92780
Pd Mmp Inc C/O Manila J Patel 1150 N Mountain Ave #102 Upland, CA 91786	Scheu 6 PO Box 250 Upland, CA 91785	Aurelia Hagwood PO Box 222 Valley Center, CA 92082
Jesus Estrada & Sandra P Melendez 2908 E Hollybrook Dr West Covina, CA 91791	Carol M & Steven Morgan C/O Harry T Morgan Equity Trust 7240 McLaren Ave West Hills, CA 91307	Elaine Dirienzo 3814 Bowspirit Cir Westlake, CA 91361
Robert J & Adrina Alyssa Sedano 8507 Villa Verde Dr Whittier, CA 90605	34380 Monterey Palm Desert 12550 Whittier Blvd Whittier, CA 90602	Mickey K & Karen M Batson 10800 Lake View Rd Yucaipa, CA 92399
Deanna L & Albert J Lemieux 4570 Yale Ave #805 Denver, CO 80222	Carolyn D Pogue 4610 S Akron St Greenwood Village, CO 80111	Marvin D & Connie E Newton 9623 Silver Hill Cir Lone Tree, CO 80124
Alyce G Haskins PO Box 452 Silver Plume, CO 80476	Richard Harmon 202 Old Mill Rd Middletown, CT 6457	Rj Ventures C/O City Prop Tax Dept PO Box 30508 Tampa, FL 33630
Merrill N Fransdal 614 N 3rd St Estherville, IA 51334	Dennis L & Twylah F Bowden 1320 Burrell Ave Lewiston, ID 83501	Kyle L & Dorothy L McBride 2337 Stadium Blv Twin Falls, ID 83301
Panera 3630 S Geyer Rd #100 St Louis, MO 63127	Mark Belenchia 809 Arlington St Jackson, MS 39202	Southern Pacific Transportation Co 1700 Farnam St Omaha, NE 68102
Edith Mae Gales 10 Roosevelt Dr Bedford, NH 3110	Clay Ross Elting 434 Tiger Lily Way Henderson, NV 89015	Deborah L Schmidt 3 Comanche Ct Katonah, NV 10536
Thomas E Burge 498 Vaughn Trl Akron, OH 44319	George A & Sandra K Peterson 412 Walnut Dr Conneaut, OH 44030	Pnc Mortgage PO Box 8807 Dayton, OH 45401

Property Owners and Residences within ¼ Mile from the Project Area		
Dennis R & Marilee Meloy 40 Longview Ct North Lima, OH 44452	Bank Of New York Mellon C/O Caliber Home Loans 13801 Wireless Way Oklahoma City, OK 73134	Tom N & Robyn Brewer 615 Sw 136th St Beaverton, OR 97005
Kenneth J Degree 62645 Montara Dr Bend, OR 97701	Alice A Barnes PO Box 404 Condon, OR 97823	J Kenneth & Bette J Johnson 55366 Winter Lake Rd Coquille, OR 97423
Marilyn Bilka Apple Pettyjohn 2268 19th St Florence, OR 97439	Merton Meeker 726 McVey Lake Oswego, OR 97034	David T & Mary M Kohler 660 Birch St Mt Angel, OR 97362
Gerald R & Patricia M Harms 16233 Sw 130th Ter #45 Portland, OR 97224	John L & Delores M Cooper 7536 Se 141st Ave Portland, OR 97236	Leo & Esther Sullivan 9915 Sw 80th Ave Portland, OR 97223
William & Shirley Weathers 2320 88th Ave Salem, OR 97305	Edward L & Kathryn L Albers 2887 Twin Oak Pl Salem, OR 97304	Charles Winchester PO Box 919 Seaside, OR 97138
Dale D & Donna P Schrank 1312 W 10th St #13 The Dalles, OR 97058	Dennis L & Lois Charlene Simkins 3105 Hillcrest Rd Tillamook, OR 97141	Kathryn Minor PO Box 9045 Rapid City, Sd 57709
James L & Rebecca A Carriere 111 Rainbow Dr Livingston, TX 77399	Los Angeles Smsa Ltd Partnership C/O Christi Glines 2795 E Cottonwood Pkwy #400 Salt Lake City, UT 84121	Keith S & Kathusca Johnson 192 Lakeview Tooele, UT 84074
Ronald E Hill 2805 S 3000 West West Haven, UT 84401	Sparkys Storage 18 C/O Darren M Shariach PO Box 320099 Alexandria, VA 22320	Arnold J & Joyce E Sluys 11514 Se 320th Pl Auburn, WA 98092
John H & Kathy A Worthington 4011 Adams Ave Bellingham, WA 98229	Douglas M & Lynn M Wight C/O Windermere Management 541 W Bakerview Rd Bellingham, WA 98226	Tracey Thayer 8026 Birch Bay Dr #225 Blain, WA 98230
William H Dore 12462 Gwen Dr #3 Burlington, WA 98233	Kenneth D Sodoma 15015 W Taylor Rd Cheney, WA 99004	Douglas E & Carol A Hansen 2883 Se Falcon View Dr East Wenatchee, WA 98802
Laraine Taplin 12404 E Gibson Rd Everett, WA 98204	Ray E & Marla J Simon PO Box 1763 Hoodsport, WA 98548	Costco Wholesale Corp 999 Lake Dr Issaquah, WA 98027
Dean A & Shawnda L Beukelman PO Box 826 La Center, WA 98629	James R & Debra A Jones 1401 Marvin Rd #307 Lacy, WA 98516	Delbert F & Mary Ann Barham 22708 E 8th Ave Liberty Lake, WA 99019
Gregory A & Laura L Irwin PO Box 422 Lynden, WA 98264	Hearl Kenneth Clay 2002 196th St #E Lynwood, WA 98036	Richard A & Suzanne I Colombi 23721 230th Pl Maple Valley, WA 98038
Lonnie A McLean 17837 1st Ave Normandy Park, WA 98148	Warren R Johnson 4234 Biscay St Olympia, WA 98502	Gayle L & Norma L Shaw 14720 155th St Orting, WA 98360
Mel D & Betsy J Ceccanti 9405 161st St Puyallup, WA 8375	William B & Rita L Baker 15015 96th St Puyallup, WA 98372	Kenneth J & Bette J Carlton 26707 Ne Redmond Redmond, WA 98063

Property Owners and Residences within ¼ Mile from the Project Area		
Jack L & Gary L Colombi 1209 N 29th St Renton, WA 98056	Debra Dianne Dejong 1026 N 41st Pl Renton, WA 98056	Arthur D Swanson 4512 Talbot Rd Renton, WA 98055
Kyu & Joung J Choi 3739 260th Ave Sammarrish, WA 98029	Robert C & Judith A Brannian 17964 Marine View Dr Seattle, WA 98166	Lon S & Kathryn G Varnell 18150 Marine View Dr Seattle, WA 98166
Roberta Jean Harkleroad 119011 Stendall Pl #9 Seattle, WA 98133	Larry R & Arlene Smith PO Box 54 Seaview, WA 98644	Keith A Conrad 3431 Nw Carlton St Silverdale, WA 98383
David Lee & Bonnie Susan Holcomb 9624 N Koiwa Ct Spokane, WA 99208	Millsap Living Trust C/O James A Millsap 1811 S Royal St Spokane, WA 99224	Bonnie Norton Riley PO Box 3546 Spokane, WA 99220
Lloyd R & Mildred Benson 13420 E Broadway No #2a Spokane Valley, WA 99216	Norma Lynne Markeson 2416 S Starlight Ln Spokane Valley, WA 99016	William B & Delores S Kirkham 4213 Fariwood Blvd Tacoma, WA 98422
Diane R Huff 1419 N Woodlawn St Tacoma, WA 98406	James & Sue Kennedy 12009 Ne 44th Ave Vancouver, WA 98686	Robert B & Claudia J Dunn 8375 Sprigwood Ln Delavan, WI 53115
Pegge E Thompson PO Box 202 Saratoga, WY 82331	Pinkpiggy Inv 30 N Gould St #7001 Sheridan, WY 82801	Norman & Valerie Verbeek 2402 Pheasant Ridge Dr Armstrong BC Canada,
Brian & Sylvia Hrynkiw PO Box 232 Beauval SK Canada,	Antonio & Melina Chirico 6550 Union St Burnaby BC Canada,	Brian & Carolyn H Andersen 145 2200 Marda Link Sw Calgary AB Canada,
Bruce & Wendy Bayne 5214 Coral Shores Dr Calgary AB Canada,	Glenn L & Brenda L Dreissigacker 1548 Lake Twin Tree Se Calgary AB Canada,	Ilona Barbara Braun 111 Pt Dr Calgary AB Canada,
Alvin & Patricia Loria 127 Wentworth Lndg Calgary AB Canada,	Marcel J & Marlene Lalonde 39 Tuscany Glen Park Clgary AB Canada,	Larry C & Janice L Arbour 34 Eagleview Way Cochrane AB Canada,
Diana M Colborne PO Box 778 Cochrone AB Canada,	Brent & Georgia Bannister 13800 Nash Dr Coldstream BC Canada V1b,	R B Cupples 4271 Lakeview Dr Cranbrook BC Canada,
Jill L Anderson 6733 Northview Pl Delta VC Canada V,	James Leonard & Cynthia Elaine Sarpalius 4875 Golfers Ln Duncan BC Canada,	Douglas Beaton 8227 98th Ave Edmonton AB Canada,
Heather Km Behman 1116 Goodwin Cir Edmonton AB T5t6w,	372978 Alberta Box 1030 Fairview AB Canada,	David B & Suzanne R Roberts 859 Inglis Rd Gibson BC Canada,
Brian Loren & Vivian Percival Bramall 10 20075 92a Ave Langley BC Canada,	Eugene L Wirsta 20 50202 Range Rd #244a Leduc AB Canada T,	Robert J & Lynda L Baird 10 Blackwell Ct Leduc AB Canada T,
Albert & Dale Gaumond 7 971 Coteau St Moose Jaw SK Canada,	Ken & Cheryl Nishida 330 Donnellys Rd Nakusp BC Canada,	David J & Wendy E Simpson 2936 Lower 6 Mile Rd Nelson BC Canada,
A Senecal 11701 La Costa Ln Osoyoos BC Canada,	Daniel J & Heather L Rosengren 53 490 Lewis Dr Quesnel BC Canada,	Marvin Paul & Michele Rene Megyesi 832 Funn St Quesnel BC Canada,

Property Owners and Residences within ¼ Mile from the Project Area		
Elizabeth Lois & Patricia Leah Schmit 798 Quesnel Canyon Rd Quesnel BC Canada,	Willem N & Vickie Anne Kooman 43 Rutherford Close Reddeer AB Canada,	Gary Vossen 56 3088 Francis Rd Richmond BC Canad,
Stuart & Evelyn Walker Box 1270 Rosetown SK Canada,	Susan P Buerge PO Box 467 Salma BC Canada V,	Robert Duffenais 33 Glenmore Crescent St Albert AB Canada,
Richard & Sheron Burgis Box 465 Stirling AB Canada,	Paul Haldor & Ruthmargaretmarie Haldorson 303 10128 132nd St Surrey BC Canada,	Thomas & Beverley Douglas 329 172a St Surrey BC Canada,
Todd Murray 2808 23rd Ave Vancouver BC Cana,	Ramesh Sahjpaul 3878 W 18th Ave Vancouver BC Canada,	Carmin & Frances Zaino C/O Frances Zaino 6301 Bench Row Rd Vernon BC Canada,
Iroc Interiors Inc 5426 E Vernon Rd Vernon BC Canada,	Steve Karvalics 496 Davida Ave Victoria BC Canada,	Norman Harvey & M Patricia Haakonson 67530 Marsett Pl Victoria BC Canada,
Melvin H Lewis No 3 434 Fraser St Victoria BC Canada,	Richard Brattley Box 487 Wakaw SK Canada S,	Barry Paul & Janet Anne Fisher 206 1521 Blackwood St Whiterock BC Canada,
Tanis L Moore 705 33 Kennedy St Winnipeg MB Canada,	Robert Mark Bonten 50 Royal Crest Dr Winnipeg MB Canada,	Jeffrey Allen & Shannon Leigh Rosnau Qualicum Beach BC Canada V9K1R1
Jean Louis Brault Terrebonne QC Canada J6V1P6	David A & Marcella L Lyons East St Paul MB Canada R2E0H6	Clifford Lonnie & Cheryl Lorraine Walker Rosetown SK Canada S0I2V0
Gary W & Janice Grant Water Valley AB Canada T0M2B0	Mark Orville Wilson Medicine Hat AB Canada T1B3Y2	Wayne T & Sandra M Brattley Red Deer County AB Canada T4E0G2
Craig & Susan Woollven Summerland BC Canada V0H1Z9	D Ritchie & Deborah D MacDonald Logan Lake BC Canada V0K1W0	Leonard J & Patricia Ritchie Pemberton BC Canada V0N2L0
Alan & Beverly Pothecary Coldstream BC Canada V1B2P4	James A Rees Maple Ridge BC Canada V2X6C4	Malcolm Dailly Aldergrove BC Canada V4W0C4
Tom & Charlene Harvey ABbotsford BC Canada V4X3R2	William L & Bonita C Hamson North Vancouver BC Canada y	Donald Graeme & Kathleen Finch Parksville BC Canada V9P2P8
Llewellyn Dell Cline Portage La Prairie MB Canada R1N3R9	Cheryl & Rodger Longstaff Bridgewter NS Canada B4V1H1	

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Appendix A CEQA Checklist

CEQA Environmental Checklist

08 – RIV – 010	44.8/46.6	0F1200
Dist.-Co.-Rte.	P.M/P.M.	E.A.

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 indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. 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.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
I. AESTHETICS: Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

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:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES: Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒
V. CULTURAL RESOURCES: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☐	☒

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

VII. GREENHOUSE GAS EMISSIONS: Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Caltrans has used the best available information based to the extent possible on scientific and factual information, to describe, calculate, or estimate the

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	amount of greenhouse gas emissions that may occur related to this project. The analysis included in the climate change section of this document provides the public and decision-makers as much information about the project as possible. It is Caltrans' determination that in the absence of statewide-adopted thresholds or GHG emissions limits, it is too speculative to make a significance determination regarding an individual project's direct and indirect impacts with respect to global climate change. Caltrans remains committed to implementing measures to reduce the potential effects of the project. These measures are outlined in the climate change section of the document.			
VIII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒
IX. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) 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?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow	☐	☐	☐	☒
X. LAND USE AND PLANNING: Would the project:				

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b)Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
XI. MINERAL RESOURCES: Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒
XII. NOISE: Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
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 expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
XIII. POPULATION AND HOUSING: Would the project:				

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

XIV. PUBLIC SERVICES:

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

XV. RECREATION:

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XVI. TRANSPORTATION/TRAFFIC: Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒
XVII. 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:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XVIII. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) 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?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒
XIX. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Appendix B Title VI Policy Statement

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DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
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SACRAMENTO, CA 94273-0001
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Flex your power!
Be energy efficient!

March 2013

NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, please visit the following web page: http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, 1823 14th Street, MS-79, Sacramento, CA 95811. Telephone: (916) 324-0449, TTY: 711, or via Fax: (916) 324-1949.

MALCOLM DOUGHERTY
Director

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Appendix C Environmental Commitment Record

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Date of ECR: March 2018
Type/Date of Environmental Compliance:
CEQA – Initial Study

NEPA – Environmental Assessment

Project Phase:
☒ PA/ED (*DED/FED*)
☐ PS&E Submittal _____%
☐ ReValidation (#) During: PS&E
☐ Ready To List
☐ Construction

ENVIRONMENTAL COMMITMENTS RECORD

Construct a New Interchange at Interstate 10 and Portola Avenue in Riverside County

08—RIV—10
PM 44.8 / 46.6

EA 08-0F1200
PN 0800000112

Avoidance, Minimization, and/or Mitigation Measures	Page # in Env. Doc.	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure	Measure Completed (Date and Initials)		Remarks	Environmental Compliance	
										YES	NO
RELOCATIONS AND REAL PROPERTY ACQUISITION											
RRPA-1: (NEPA) 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.	96	Environmental Document (2018)	County of Riverside	Right-of-Way / Prior to Construction	N/A						
VISUAL/AESTHETICS											
VIS-1: (CEQA/NEPA) Revegetation: A replanting plan shall be developed to address revegetation and shading in coordination with Caltrans Landscape Architecture staff for areas within the state right-of-way as well as with County and City staff. The replanting shall take place after construction of the roadway. The landscape plan shall include the following components:	123	Visual Impact Assessment (2012)	County of Riverside / Caltrans LA / Resident Engineer	Prior to Construction / Construction	N/A						
VIS-1a: Plant native trees and/or shrubs along Portola Avenue and I-10 to be visually pleasing and consistent with the natural surroundings.	123	Visual Impact Assessment (2012)	County of Riverside / Caltrans LA / Resident Engineer	Prior to Construction / Construction	N/A						

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										YES	NO
VIS-1b: Plant drought-resistant plants along the I-10 corridor to be consistent with the General Plan, which promotes use of xeric (adapted to arid conditions) landscaping techniques.	123	Visual Impact Assessment (2012)	County of Riverside / Caltrans LA / Resident Engineer	Prior to Construction / Construction	N/AN/A						
VIS-1c: Incorporate soil erosion control plants into the embankments and within the areas of steeper slopes.	123	Visual Impact Assessment (2012)	County of Riverside / Caltrans LA / Resident Engineer	Prior to Construction / Construction	N/A						
VIS-1d: The City of Palm Desert will ensure that replanted vegetation adjacent to sound walls and retaining walls will not be highly sensitive to shadow and shade. All plantings will be drought-resistant and, where applicable, shadow resistant to ensure plant longevity and the sustainable use of water resources.	123	Visual Impact Assessment (2012)	County of Riverside / Caltrans LA / Resident Engineer	Prior to Construction / Construction	N/A						
VIS-2: (CEQA/NEPA) Tree mass loss in each viewshed would be minimized by avoiding removal of trees.	123	Visual Impact Assessment (2012)	County of Riverside / Resident Engineer	Construction	N/A						
VIS-3: (CEQA/NEPA) Incorporate aesthetic treatments on walls, enhanced hardscape, and trees and/or shrubs.	123	Visual Impact Assessment (2012)	County of Riverside / Resident	Prior to Construction / Construction	N/A						

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										YES	NO
			Engineer								
VIS-4: (CEQA/NEPA) The lighting fixtures will be designed to minimize glare on adjacent properties and the preservation of the community's night sky. Lighting will be shielded with non-glare hoods, and focused within the project right-of-way.	123	Visual Impact Assessment (2012)	County of Riverside / Resident Engineer	Prior to Construction	N/A						
CULTURAL RESOURCES											
CUL-1: (CEQA/NEPA) If cultural materials are discovered during construction, all earth-moving activity within 60 feet of the immediate discovery area will be diverted until a Caltrans approved qualified archaeologist can assess the nature and significance of the find.	128	Archaeological Survey Report (2017)	County of Riverside / Resident Engineer	Construction	N/A						
CUL-2: (CEQA/NEPA) If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendent (MLD). The person who discovered the remains will contact Gary	128	Archaeological Survey Report (2017)	County of Riverside / Resident Engineer	Construction	N/A						

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										YES	NO
Jones, District 8 Native American Coordinator at (909) 383-7505 or District 8 Cultural Studies Branch Chief Andrew Walters at (909) 383-2647 so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.											
HAZARDOUS MATERIALS											
HW-1: (CEQA/NEPA) During the preparation of final plans, prior to the start of any demolition or utility relocation, all utility pole-mounted transformers within the project area shall be inspected for leaks. Leaking transformers and the soils surrounding the leak will be considered a potential PCB hazard and shall be handled accordingly.	153	Hazardous Waste Initial Site Assessment (2011, 2014)	County of Riverside / Resident Engineer	Final Design / Prior to Construction / Construction	14-11.02						
HW-2: (CEQA/NEPA) Soils north of the existing Varner Road alignment are assumed to have the presence of pesticides and/or herbicides in concentrations high enough to be considered a hazardous material. The construction contractor will prepare a contaminated soil remediation plan to outline disposal procedures for all contaminated soils affected during construction. Disposal is expected to involve trucking the soil off-site for disposal at an approved facility, or by burying it under a cap of clean fill within	153	Environmental Document (2018)	County of Riverside / Resident Engineer	Prior to Construction / Construction	N/A						

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										YES	NO
project grading. The contaminated soil remediation plan must be prepared in coordination with Caltrans and the Department of Toxic Substances Control prior to the start of construction activities north of Varner Road. If soil testing is performed prior to the start of construction and the soil north of Varner Road is documented to not be contaminated with pesticides and/or herbicides, this measure may be considered no longer applicable.											
HW-3: (CEQA/NEPA) Soils adjacent to the Union Pacific railroad tracks are assumed to have the presence of hydrocarbon contamination and/or heavy metals in concentrations high enough to be considered a hazardous material. The construction contractor will prepare a contaminated soil remediation plan to outline the disposal procedures for all contaminated soils affected during construction. Disposal is expected to involve trucking the soil off-site for disposal at an approved facility. The contaminated soil remediation plan must be prepared in coordination with Caltrans and the Department of Toxic Substances Control prior to the start of construction adjacent to the Union Pacific railroad tracks. If soil testing is performed prior to the start of construction and the soils adjacent to the railroad tracks	154	Environmental Document (2018)	County of Riverside / Resident Engineer	Prior to Construction / Construction	N/A						

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										YES	NO
are documented to not be contaminated with hydrocarbons and/or heavy metals, this measure may be considered no longer applicable.											
HW-4: The construction contractor will prepare a contaminated soil remediation plan (discussed in measures HW-2 and HW-3) which will include a complete discussion of worker protections for any construction activities in and around known contaminated soils in the project area. All applicable best management practices for the specific hazardous materials will be included to provide the safest practical working conditions.	154	Environmental Document (2018)	County of Riverside / Resident Engineer	Prior to Construction / Construction	N/A						
HW-5: (CEQA/NEPA) If any previously unknown hazardous waste/materials are encountered during construction, the Caltrans Unknown Hazards Procedures would be implemented to minimize potential health and safety concerns.	154	Hazardous Waste Initial Site Assessment (2011, 2014)	County of Riverside / Resident Engineer	Construction	14-11.02						

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										YES	NO
AIR QUALITY											
AQ-1: (CEQA/NEPA) All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, SCAQMD approved chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover. Use of water for control of fugitive dust shall be consistent with current Caltrans drought policy.	173	Air Quality Study (2014)	Resident Engineer	Construction	14-9.02						
AQ-2: (CEQA/NEPA) All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.	173	Air Quality Study (2014)	Resident Engineer	Construction	14-9.02						
AQ-3: (CEQA/NEPA) All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking. Use of water for control of fugitive dust shall be consistent with current Caltrans drought policy.	173	Air Quality Study (2014)	Resident Engineer	Construction	14-9.02						
AQ-4: (CEQA/NEPA) When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of	174	Air Quality Study (2014)	Resident Engineer	Construction	14-9.02						

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Construct a New Interchange at Interstate 10 and Portola Avenue in Riverside County

08—RIV—10
PM 44.8 / 46.6

EA 08-0F1200
PN 0800000112

Avoidance, Minimization, and/or Mitigation Measures	Page # in Env. Doc.	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure	Measure Completed (Date and Initials)		Remarks	Environmental Compliance	
										YES	NO
freeboard space from the top of the container shall be maintained. Use of water for control of fugitive dust shall be consistent with current Caltrans drought policy.											
AQ-5: (CEQA/NEPA) All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden. Use of water for control of fugitive dust shall be consistent with current Caltrans drought policy.	174	Air Quality Study (2014)	Resident Engineer	Construction	14-9.02						
AQ-6: (CEQA/NEPA) Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant. Use of water for control of fugitive dust shall be consistent with current Caltrans drought policy.	174	Air Quality Study (2014)	Resident Engineer	Construction	14-9.02						
AQ-7: (CEQA/NEPA) Within urban areas, track out shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday.	174	Air Quality Study (2014)	Resident Engineer	Construction	14-9.02						

Date of ECR: March 2018
Type/Date of Environmental Compliance:
CEQA – Initial Study

NEPA – Environmental Assessment

ENVIRONMENTAL COMMITMENTS RECORD

Construct a New Interchange at Interstate 10 and Portola Avenue in Riverside County

08—RIV—10
PM 44.8 / 46.6

EA 08-0F1200
PN 0800000112

Project Phase:
☒ PA/ED (*DED/FED*)
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☐ Construction

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										YES	NO
AQ-8: (CEQA/NEPA) Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.	174	Air Quality Study (2014)	Resident Engineer	Construction	14-9.02						
AQ-9: (CEQA/NEPA) All applicable Best Available Control Measures from Rule 403 will be implemented.	174	Air Quality Study (2014)	Resident Engineer	Construction	14-9.02						
AQ-10: (CEQA/NEPA) Soil binder will be spread on all project construction parking areas.	174	Air Quality Study (2014)	Resident Engineer	Construction	14-9.02						
NOISE											
NOI-1: (NEPA) The control of noise from construction activities shall conform to Caltrans' Standard Specifications in Section 14-8.02, "Noise Control." The noise level from the Contractor's operations, between the hours of 9:00 p.m. and 6:00 a.m., shall not exceed 86 dBA Lmax at a distance of 50 feet. The Contractor should use an alternative warning method instead of a sound signal unless required by safety laws. In addition, the Contractor shall equip all internal combustion engines with the manufacturer-recommended muffler and shall not operate any internal combustion engine on the job site without its appropriate muffler.	199	Noise Study Report (2014)/ Noise Abatement Decision Report (2014)	Resident Engineer	Construction	14-8.02						

Date of ECR: March 2018
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										YES	NO
BIOLOGICAL RESOURCES											
BIO-1: (CEQA/NEPA) Prior to beginning construction activities, the Construction Contractor will be required to prepare a Stormwater Pollution Prevention Plan (SWPPP). This plan will be reviewed for compliance with and inclusion of measures in the Caltrans SWPPP Preparation Guidance Document. The measures in the SWPPP must also satisfy stormwater management practices acceptable to the Colorado River Basin RWQCB, the City of Palm Desert, and the County of Riverside. Typical measures to prevent wind and water erosion include applications of water or dust palliatives during earthwork activities, flattened cut and fill slopes, sandbags, contour grading, no work during high-wind days, haul road sealing, and others.	209	Natural Environment Study Amendment (2017)	County of Riverside / Resident Engineer	Prior to Construction	14-1.02						

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										YES	NO
BIO-2: (CEQA/NEPA) To prevent erosion and effects of surface runoff on water quality, the design of the proposed project will include erosion and sedimentation control features. Such features include the installation of replacement landscaping, construction of slopes at 1:4 or flatter, benched cut slopes, placement of straw on fill slopes to minimize erosion, and improvement of drainage facilities to handle excess runoff.	210	Natural Environment Study Amendment (2017)	County of Riverside / Resident Engineer	Prior to Construction / Construction	14-1.02						
BIO-3: (CEQA/NEPA) An ESA has been designated in proximity to the 2017 observed chaparral sand verbena population. Prior to ground disturbance, high visibility ESA fencing must be installed under the direction of the project biologist. See Figure 2.23 Special-Status Species Observation for ESA location.	213	Natural Environment Study Amendment (2017)	County of Riverside / Resident Engineer Contractor Supplied Biologist (CSB)	Prior to Construction / Construction	14-1.02						
BIO-4: (CEQA/NEPA) The spring (March-May) immediately prior to construction, the project biologist must perform pre-construction blooming surveys for chaparral sand verbena within the limits of disturbance. Any observed chaparral sand verbena must be designated with high visibility ESA fencing with a minimum 1.5 foot buffer between the fencing and observed specimens. If an individual is unable to be avoided, the ripe	213	Natural Environment Study Amendment (2017)	County of Riverside / Resident Engineer Contractor Supplied Biologist (CSB)	Prior to Construction / Construction	14-1.02						

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										YES	NO
seed must be collected by the project biologist and immediately dispersed at a suitable location, such as the Thousand Palms Conservation Area. Seed dispersal would be made in coordination with the CVCC.											
BIO-5: (CEQA/NEPA) Prior to clearing or construction, highly visible barriers (such as orange construction fencing) will be installed around ruderal/saltbush scrub and Sonoran creosote bush scrub plant communities adjacent to the project footprint to designate Environmentally Sensitive Areas (ESAs) to be preserved. No grading or fill activity of any type will be permitted within these ESAs. In addition, heavy equipment, including motor vehicles, will not be allowed to operate within the ESAs. All construction equipment will be operated in a manner so as to prevent accidental damage to nearby preserved areas. No structure of any kind, or incidental storage of equipment or supplies, will be allowed within these protected zones. Silt fence barriers will be installed at the ESA boundary to prevent accidental deposit of fill material in areas where vegetation is adjacent to planned grading activities.	220	Natural Environment Study Amendment (2017)	County of Riverside / Resident Engineer Contractor Supplied Biologist (CSB)	Prior to Construction / Construction	14-1.02						

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										YES	NO
BIO-6: (CEQA/NEPA) All equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities will occur in developed areas or habitat areas unsuitable for the Palm Springs round-tailed ground squirrel.	220	Natural Environment Study Amendment (2017)	County of Riverside / Resident Engineer Contractor Supplied Biologist (CSB)	Construction	14-6.03A						
BIO-7: (CEQA/NEPA) A preconstruction focused survey will be required to verify burrowing owl species absence from the proposed project site prior to grading. If the burrowing owl is determined to be present, passive relocation will be required to avoid effects to the burrowing owl. There are two survey periods for the burrowing owl: spring and winter. Spring (or breeding) surveys are conducted between February 1 and August 31. Winter surveys are conducted between December 1 and January 31. If an owl is found to be present during the breeding season, no ground disturbance (within the occupied area) can begin until after the breeding season (i.e., after August 31) and/or until the owls have completed their nesting activities. Relocation efforts must be coordinated with the California Department of Fish and Wildlife.	220	Natural Environment Study Amendment (2017)	County of Riverside / Resident Engineer Contractor Supplied Biologist (CSB)	Prior to Construction / Construction	14-6.03B						

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										YES	NO
BIO-8: (CEQA/NEPA) To avoid potential effects to nesting raptors and any other nesting birds; vegetation clearing shall be completed outside of bird breeding season (February 1 through August 31). If vegetation clearing is not conducted outside the bird breeding season, pre-construction surveys will be required to ensure effects to nesting birds are avoided. If nesting raptors or nesting birds are discovered during the pre-construction survey, avoidance measures will be required in coordination with CDFW.	220	Natural Environment Study Amendment (2017)	County of Riverside / Resident Engineer Contractor Supplied Biologist (CSB)	Prior to Construction / Construction	14-6.03B						
BIO-9: (CEQA/NEPA) In accordance with the CVMSHCP Section 6.6.1, to mitigate for impacts as a result of the proposed project, CVAG shall contribute $30 million from Measure A or other funds toward land acquisition, and the Monitoring Program, the Management Program, and Adaptive Management.	221	Natural Environment Study Amendment (2017)	County of Riverside / Resident Engineer	Prior to Construction / Construction							
BIO-10: (CEQA/NEPA) To allow ground dwelling wildlife enough time to escape initial clearing and grubbing activities, equipment used during initial clearing and grubbing must be operated at speeds no greater than 3 miles per hour.	221	Natural Environment Study Amendment (2017)	County of Riverside / Resident Engineer	Prior to Construction / Construction							

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										YES	NO
BIO-11: (NEPA) Invasive species prevention: **BIO-11a:** During construction, the construction contractor shall inspect and clean construction equipment at the beginning of each day and prior to transporting equipment from one project location to another.	225	Natural Environment Study (2011)	Resident Engineer	Construction	N/A						
BIO-11b: During construction, soil and vegetation disturbance will be minimized to the greatest extent feasible.	225	Natural Environment Study (2011)	Resident Engineer	Construction	N/A						
BIO-11c: During construction, the construction contractor shall ensure that all active portions of the construction site are watered a minimum of twice daily or more often when needed due to dry or windy conditions, to prevent excessive amounts of dust.	225	Natural Environment Study (2011)	Resident Engineer	Construction	N/A						
BIO-11d: During construction, the construction contractor shall ensure that all material stockpiled is sufficiently watered or covered to prevent excessive amounts of dust.	225	Natural Environment Study (2011)	Resident Engineer	Construction	N/A						
BIO-11e: During construction, soil/ gravel/ rock will be obtained from weed-free sources.	225	Natural Environment Study (2011)	Resident Engineer	Construction	N/A						
BIO-11f: Only certified weed-free straw, mulch, and/or fiber rolls will be used for erosion control.	225	Natural Environment Study (2011)	Resident Engineer	Construction	N/A						

Date of ECR: March 2018
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										YES	NO
BIO-11g: After construction, affected areas adjacent to native vegetation will be revegetated with plant species native to the vicinity and approved by the District Biologist.	225	Natural Environment Study (2011)	Resident Engineer	Post Construction	N/A						
BIO-11h: After construction, all revegetated areas will avoid the use of species that have a high or moderate rating on California Invasive Plan Council Invasive Plant Inventory.	226	Natural Environment Study (2011)	Resident Engineer	Post Construction	N/A						
BIO-11i: Erosion control and revegetation sites will be monitored for 2 to 3 years after construction to detect and control the introduction/invasion of nonnative species.	226	Natural Environment Study (2011)	Resident Engineer	Post Construction	N/A						
BIO-11j: Eradication procedures (e.g., spraying and/or hand weeding) will be outlined should an infestation occur; the use of herbicides will be prohibited within and adjacent to native vegetation, except as specifically authorized and monitored by the District Biologist.	226	Natural Environment Study (2011)	Resident Engineer Contractor Supplied Biologist (CSB)	Post Construction	N/A						

Appendix D List of Acronyms and Abbreviations

ADA	Americans with Disabilities Act
ADL	Aerially Deposited Lead
ADT	Average Daily Traffic
APE	Area of Potential Effects
ARB	California Air Resources Board
BMPs	Best Management Practices
BSA	Biological Study Area
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CH_4	methane
CHP	California Highway Patrol
City	City of Palm Desert
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
County	Riverside County
COZEEP	Construction Zone Enhanced Enforcement Program
CTP	California Transportation Plan
CVAG	Coachella Valley Association of Governments
CVMSHCP	Coachella Valley Multiple Species Habitat Conservation Plan
CWA	Clean Water Act
dBA	A-weighted decibels
DSA	Disturbed Soil Area
EA	Environmental Assessment
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Environmentally Sensitive Areas
FCAA	Federal Clean Air Act
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact

FPPA	Farmland Protection Policy Act
FTA	Federal Transit Administration
FTIP	Federal Transportation Improvement Program
GHG	Greenhouse Gas
H_2S	Hydrogen Sulfide
HEI	Health Effects Institute
HRA	Health Risk Assessment
I-10	Interstate 10
IS	Initial Study
ISA	Initial Site Assessment
LEDPA	Least Environmentally Damaging Practicable Alternative
LOS	level of service
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
MLD	Most Likely Descendent
mph	miles per hour
MPO	Metropolitan Planning Organization
MSAT	Mobile Source Air Toxics
MS4	Municipal Separate Storm Sewer System
MVP	Maintenance Vehicle Pullout
MVSWC	Mid-Valley Stormwater Channel
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
ND	Negative Declaration
NEPA	National Environmental Policy Act
NES	Natural Environment Study
NHMLA	Natural History Museum of Los Angeles County
NHPA	National Historic Preservation Act
NHS	National Highway System
NHTSA	National Highway Traffic Safety Administration
NNL	National Natural Landmarks
NO_x	Nitrogen Oxides
NO_2	nitrogen dioxide
N_2O	nitrous oxide
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resources Conservation Service
O_3	ozone
PA	Programmatic Agreement
PAC	Public Awareness Campaign
Pb	lead
PB	Proposed Barrier
PCB	Polychlorinated Biphenyl
PM	Post Mile

$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
PM_{10}	particulate matter less than 10 microns in diameter
PRC	Public Resources Code
RAP	Relocation Assistance Program
RCRA	Resource Conservation and Recovery Act
RCTC	Riverside County Transportation Commission
RSA	Resources Study Area
RTIP	Regional Transportation Improvement Program
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SBCM	San Bernardino County Museum
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SF_6	sulfur hexafluoride
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SO_x	Sulfur Oxides
SO_2	sulfur dioxide
SPI	Single Point Interchange
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TASAS	Traffic Accident Surveillance and Analysis System
TDM	Transportation Demand Management
TPZ	Timber Production Zone
TMDL	Total Maximum Daily Load
TSM	Transportation System Management
UPRR	Union Pacific Railroad
USC	United States Code
USACE	United States Army Corps of Engineers
USDOT	United States Department of Transportation
USFWS	United State Fish and Wildlife Service
WCVAP	Western Coachella Valley Area Plan
WDR	Waste Discharge Requirements
WPCP	Water Pollution Control Program
WRCC	Western Regional Climate Center
VHT	Vehicle Hours Traveled
VIA	Visual Impact Assessment
VMT	Vehicle Miles Traveled

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Appendix E List of Technical Studies

Aerially Deposited Lead Investigation Report, February 2007

Air Quality Conformity Analysis, January 2018

Air Quality Report, May 2015

Air Quality Report Update Memorandum, August 2017

Archaeological Survey Report, August 2011

Supplemental Archaeological Survey Report, August 2017

Hazardous Waste Initial Site Assessment, April 2007

Hazardous Waste Initial Site Assessment Update Memorandum, June 2011

Hazardous Waste Initial Site Assessment Update Memorandum, August 2014

Hazardous Waste Initial Site Assessment Update Memorandum, February 2016

Hazardous Waste Initial Site Assessment Update Memorandum, June 2017

Historic Property Survey Report, October 2007

First Supplemental Historic Property Survey Report, July 2011

Second Supplemental Historic Property Survey Report, October 2014

Third Supplemental Historic Property Survey Report, August 2017

Location Hydraulic Study, October 2017

Natural Environment Study, October 2011

Natural Environment Study Amendment, October 2017

Noise Abatement Decision Report, January 2015

Noise Study Report, June 2014

Noise Study Report Update Memorandum, August 2017

Portola Avenue/I-10 Freeway Interchange Regional Floodplain Hydraulic Impacts/Mitigation Assessment, December 2017

Preliminary Foundation Report, July 2016

Preliminary Materials Report, June 2016

Right of Way Data Sheets, July 2016

Summary Floodplain Encroachment Report, October 2017

Traffic Operations Analysis, December 2009, Revised July 2015

Traffic Volume Validation Report, February 2015

Visual Impact Assessment, February 2012

Visual Impact Assessment Update Memorandum, August 2017

Appendix F References

California Air Resources Board, 2017

Caltrans Noise Protocol, 2011

Caltrans, Transportation Project Level-Carbon Monoxide Protocol, 1997

Caltrans, I-10 District System Management Plan, 2017

Caltrans, Traffic Accident Surveillance and Analysis System, 2016

City of Palm Desert, Comprehensive General Plan, 2016

Coachella Valley Multiple Species Habitat Conservation Plan, 2016

Federal Emergency Management Agency, Flood Insurance Rate Maps, 2016

Federal Highways Administration, Visual Impact for Highway Projects, 1981

Riverside County General Plan, Western Coachella Valley Area Plan, Revised 2017

Southern California Association of Governments, 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, 2016

Southern California Association of Governments, 2017 Federal Transportation Improvement Program, 2017

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Appendix G FHWA Project Level Conformity Determination

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DEPARTMENT OF TRANSPORTATION
Caltrans District 8 (MS 826)
Environmental Engineering
464 W. 4th Street
San Bernardino, CA 92401
PHONE (909) 388-1095
FAX
TTY
www.dot.ca.gov

Flex your power!
Be energy efficient!

February 15, 2018

Mr. Jack Lord
U.S. Department of Transportation
Federal Highway Administration
650 Capitol Mall, Suite 4-100
Sacramento, CA 95814

Attention: Joseph Vaughn

Dear Mr. Lord:

The California Department of Transportation (the Department) requests that the Federal Highway Administration issue a project-level conformity determination for the I-10/Portola Avenue Interchange Project (EA 0F120). The project would propose to construct a new interchange on I-10 at Portola Avenue and is located in the City of Palm Desert. The project is in an area that is designated Nonattainment or Maintenance for Ozone and PM10. Details of the analysis are contained in the enclosed Air Quality Conformity Analysis report and related materials.

The project area is subject to regional conformity analysis requirements. The attached conformity analysis demonstrates that the project is listed in the conforming 2012-2035 Regional Transportation Plan and 2017 Federal Transportation Improvement Program, and therefore that it meets regional conformity requirements for a project-level conformity determination.

The project area is subject to project-level hot-spot analysis requirements for CO, PM10, and PM2.5. The attached conformity analysis shows that hot-spot analysis requirements listed in 40 CFR 93.116 and 123 are met. A written commitment is made by this letter to implement hot-spot pollutant control measure identified in the applicable SIP and NEPA document, as required by 40 CFR 93.117 and 125.

Interagency Consultation and public involvement requirements related to PM10 and PM2.5 have been completed in accordance with the *Transportation Conformity Guidance for Qualitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas* (U.S. EPA, 3/29/2006). Interagency Consultation concluded on January 27, 2015. The Interagency Consultation partners concurred, as shown in the attached materials, that the project is not exempt from conformity analysis requirements, but that it is not a Project of Concern for PM10 and PM2.5 as defined at 40 CFR 93.123(b)(1). As such, an explicit, detailed PM10 and PM2.5 hot-spot analysis is not required.

This project has been assigned to the Department under 23 USC 327 (NEPA Assignment) and the proposed approval date of the final NEPA document is expected on or about March 12, 2018. We would appreciate your assistance with providing a conformity determination prior to that date.

If you have any question regarding this conformity analysis, please contact Olufemi Odufalu at (909) 388-1095 or by email at Olufemi.A.Odufalu@dot.ca.gov or Christopher.Gonzalez@dot.ca.gov.

Sincerely,

Olufemi Odufalu

Olufemi A. Odufalu, P.E.
Branch Chief
Environmental Engineering
Oversight and Local Assistance

c: CGonzalez, Environmental Engineering

Enclosures
Air Quality Conformity Analysis
Transportation Air Quality Conformity Checklist
Conformity Analysis Documentation

U.S. Department of Transportation
Federal Highway Administration

Federal Highway Administration
California Division

650 Capitol Mall, Suite 4-100
Sacramento, CA 95814
(916) 498-5001
(916) 498-5008 (fax)

March 8, 2018

In Reply Refer To:
HDA-CA

John Bulinski
California Department of Transportation
District 8
464 W. 4th Street
San Bernardino, CA 92401

Attention: Olufemi Odufalu

SUBJECT: Project Level Conformity Determination for the I-10/Portola Avenue Interchange Project (MPO ID: RIV031209)

Dear Mr. Bulinski:

On February 15, 2018, the California Department of Transportation (Caltrans) submitted to the Federal Highway Administration (FHWA) a complete request for a project level conformity determination for the I-10/Portola Avenue Interchange Project. The project is in an area that is designated Non-Attainment or Maintenance for Ozone and Particulate Matter (PM_{10}).

The project level conformity analysis submitted by Caltrans indicates that the project-level transportation conformity requirements of 40 CFR Part 93 have been met. The project is included in the Southern California Association of Governments' (SCAG) current Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP) as amended. The design concept and scope of the preferred alternative have not changed significantly from those assumed in the regional emissions analysis.

As required by 40 CFR 93.116 and 93.123, the localized $PM_{2.5}$ and PM_{10} analyses are included in the documentation. The analyses demonstrate that the project will not create any new violations of the standards or increase the severity or number of existing violations.

Based on the information provided, FHWA finds that the I-10/Portola Avenue Interchange Project conforms with the State Implementation Plan (SIP) in accordance with 40 CFR Part 93.

If you have any questions pertaining to this conformity finding, please contact Joseph Vaughn at (916) 498-5346 or by email at Joseph.Vaughn@dot.gov.

Sincerely,

Tashia J. Clemons

Tashia J. Clemons
Director, Program Development

Appendix H Notices

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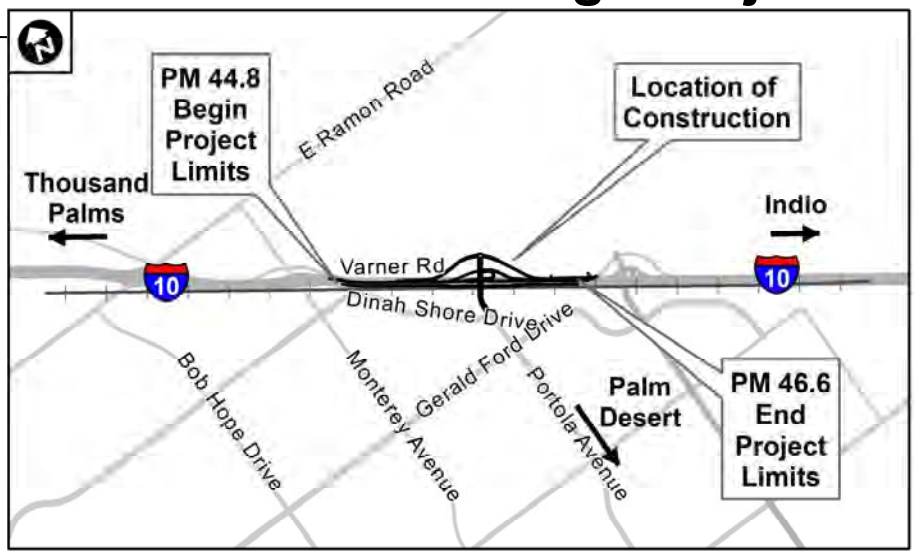
Public Notice

Notice of Intent to Adopt a Negative Declaration
Notice of Availability of Initial Study
Announcement of Public Hearing

Interstate 10/Portola Avenue New Interchange Project

WHAT IS BEING PLANNED?

The County of Riverside, in cooperation with the California Department of Transportation (Caltrans) and the City of Palm Desert, proposes to construct a new interchange on Interstate 10 (I-10) at Portola Avenue in the City of Palm Desert between the Monterey Avenue and Cook Street interchanges. The proposed project would continue Portola Avenue in a northwest direction from Dinah Shore Drive to the realigned Varner Road, including a new bridge structure over I-10 and the Union Pacific Railroad. The proposed project would serve to reduce existing and forecasted traffic congestion on Monterey Avenue and Cook Street interchanges on I-10 and would accommodate planned infrastructure improvements in the project vicinity.



WHY THIS PUBLIC NOTICE?

Riverside County and Caltrans have studied the effects this project may have on the environment. The studies show it will not significantly affect the quality of the environment. The report that explains why is called an Initial Study with proposed Negative Declaration. This notice is to advise you that the preparation of this proposed Negative Declaration and of its availability for you to read. A public hearing will be held to give you an opportunity to ask questions of Project Team members regarding design features, the tentative schedule for the proposed project, including when potential acquisition of right of way may occur and when the project will be constructed.

WHAT'S AVAILABLE?

An Initial Study with proposed Negative Declaration has been prepared and is available for public review beginning December 4, 2017 through January 4, 2018. During the public review period, a copy of the draft Negative Declaration will be available at:

- An electronic copy of the Draft IS/EA can also be viewed from the Caltrans website: www.caltrans8.info
- County of Riverside, Transportation Department, 3525 14th Street, Riverside, CA 92501;
- City of Palm Desert Public Works Department, Palm Desert Civic Center, 73-510 Fred Waring Drive, Palm Desert, CA; and
- 92260 Palm Desert Library, 73-300 Fred Waring Dr., Palm Desert, CA 92260

WHERE DO YOU COME IN?

Do you have any comments about the Initial Study and processing the project with a Negative Declaration? Do you disagree with the findings of the study as set forth in the proposed Negative Declaration? Would you care to make any other comments on the project? Please submit your comments in writing no later than January 4, 2018 to Renetta Cloud, Senior Environmental Planner, at California Department of Transportation 464 West 4th Street, 6th Floor, MS 823, San Bernardino, CA 92401 or email 10.Portola@dot.ca.gov. The date we will begin accepting comments is December 4, 2017. If there are no major comments, County of Riverside, Caltrans, and City of Palm Desert will proceed with the project's design.

WHEN AND WHERE

The public hearing will be held on December 19, 2017 from 5:30 pm to 7:30 pm at Palm Desert City Hall, Council Chambers 73-510 Fred Waring Drive, Palm Desert, CA 92260. Under the Americans with Disabilities Act of 1990, individuals who require accommodation (American Sign Language interpreter, accessible seating, documents in alternative formats, etc.) are requested to contact Renetta Cloud, Senior Environmental Planner with the California Department of Transportation, located at 464 West 4th Street, 6th Floor, MS 823, San Bernardino, CA 92401, email 10.Portola@dot.ca.gov, call (909) 388-7070, or use the California Relay Service (800) 735-2929 (TTY), (800) 735 2929 (Voice) or 711.

CONTACT

For more information about this study, please contact Renetta Cloud, Senior Environmental Planner with the California Department of Transportation, located at 464 West 4th Street, 6th Floor, MS 823, San Bernardino, CA 92401, email 10.Portola@dot.ca.gov, call (909) 388-7070, or use the California Relay Service (800) 735-2929 (TTY), (800) 735 2929 (Voice) or 711.

AVISO PUBLICO

Aviso de Intención de Adoptar una Declaración Negativa
Aviso de Disponibilidad del Estudio Inicial
Anuncio de Reunión Publica

Proyecto del Nuevo Intercambio del Interestatal 10/Avenida Portola

¿QUÉ SE ESTÁ PLANEANDO?

El Condado de Riverside, en cooperación con el Departamento de Transportación de California (Caltrans) y la ciudad de Palm Desert, propone construir un nuevo intercambio de autopista sobre la Interestatal 10 (I-10) y Avenida Portola, situado dentro de la ciudad de Palm Desert, entre los intercambios de la Avenida Monterey y la Calle Cook. El proyecto propuesto continuaría la Avenida Portola en dirección noroeste desde la calle Dinah Shore Drive hasta la calle Varner, incluyendo un nuevo puente sobre la I-10 y las vías de ferrocarril de Union Pacific. El proyecto propuesto serviría para reducir la congestión del tráfico existente y el tráfico proyectado en los intercambios de la Avenida Monterrey y la Calle Cook con la I-10 y se adaptaría a las zonas planificadas para la infraestructura en los alrededores del proyecto.

¿POR QUÉ ÉSTE AVISO PÚBLICO?

El Condado de Riverside y Caltrans han estudiado los efectos que éste proyecto puede tener sobre el medio ambiente. Los estudios muestran que no afectará significativamente la calidad del medio ambiente. El reporte que explica los efectos del proyecto se llama Estudio Inicial (IS por sus siglas en inglés). Este aviso es para avisarle de la preparación de la Propuesta Declaración Negativa Mitigada (MND por sus siglas en inglés) y la disponibilidad del IS para que usted lea. Una reunión publica se llevará a cabo para darle la oportunidad de hablar con los miembros del equipo del proyecto acerca de las características del diseño, el calendario tentativo para el proyecto propuesto, incluyendo cuando una compra potencial para el derecho de paso pueda ocurrir y cuando será construido el proyecto.

¿QUÉ ESTÁ DISPONIBLE?

La propuesta MND e IS han sido preparados y están disponibles para su revisión empezando el 4 de diciembre, 2017 hasta el 4 de enero, 2018. Durante el periodo de revisión, una copia de la propuesta MND estará disponible en:

- Una copia electrónica del IS/EA también puede verse desde la página web de Caltrans: www.caltrans8.info
- Condado de Riverside, Departamento de Transportación, 3525 14th Street, Riverside, CA 92501;
- Departamento Público de la ciudad de Palm Desert, Centro Cívico de Palm Desert, 73-510 Fred Waring Drive, Palm Desert, CA; y
- 92260 de la Biblioteca de Palm Desert, 73-300 Fred Waring Dr., Palm Desert, CA 92260

¿DÓNDE ENTRA USTED?

¿Usted tiene algún comentario sobre el procesamiento del proyecto con una MND y el IS? ¿Usted está en desacuerdo con los resultados de los estudios como se establecen en la Propuesta MND? ¿Le gustaría hacer algún otro comentario sobre el proyecto? Por favor, envíe sus comentarios por escrito a más tardar el 4 de enero del 2018 a Renetta Cloud, Senior Environmental Planner, at California Department of Transportation, 464 West 4th Street, Floor 6th, MS 823, San Bernardino, CA 92401 or email 10.Portola@dot.ca.gov. La fecha en la que comenzaremos a aceptar comentarios es el 4 de diciembre del 2017. Si no hay comentarios mayores, el Condado de Riverside, Caltrans, y la ciudad de Palm Desert procederá con el diseño del proyecto.

CUANDO Y DONDE

La Reunión Pública se llevará a cabo el 19 de diciembre, 2017 desde las 5:30 pm a 7:30 pm en el Palm Desert City Hall, 73-510 Fred Waring Drive, Palm Desert, CA 92260. Indivíduos que requieran servicios especiales (interprete de lenguaje de señas americano, asientos accesibles, documentos en formatos alternativos, etc.) se les pide contactar Riverside County Transportation Department (951) 955-1505.

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Desert Sun mediagroup
PART OF THE USA TODAY NETWORK

750 N Gene Autry Trail
Palm Springs, CA 92262
Tel: 760-778-4578 / Fax 760-778-4731
Email: legals@thedesertsun.com

PROOF OF PUBLICATION

STATE OF CALIFORNIA SS.
COUNTY OF RIVERSIDE

DOKKEN ENGINEERING
110 BLUE RAVINE RD STE 200

FOLSOM CA 95630

I am over the age of 18 years old, a citizen of the United States and not a party to, or have interest in this matter. I hereby certify that the attached advertisement appeared in said newspaper (set in type not smaller than non pariel) in each and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

12/06/17

I acknowledge that I am a principal clerk of the printer of The Desert Sun, printed and published weekly in the City of Palm Springs, County of Riverside, State of California. The Desert Sun was adjudicated a Newspaper of general circulation on March 24, 1988 by the Superior Court of the County of Riverside, State of California Case No. 191236.

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 8th of December 2017 in Palm Springs, California.

Ad#:0002573096
P O :
# of Affidavits :7

Caltrans CVAG PALM DESERT

Public Notice

Notice of Intent to Adopt a Negative Declaration
Notice of Availability of Initial Study
Announcement of Public Hearing

Interstate 10/Portola Avenue New Interchange Project

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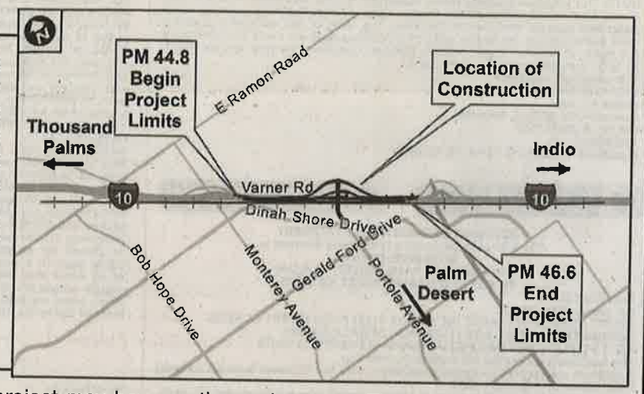

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DRD Recibe Concesión Para el Proyecto del Parque Comunitario de North Shore

North Shore.- La Agencia de Recursos Naturales de California (Agencia), a través del Programa de Enverdecimiento Urbano del estado, otorgó al Distrito de Recreación del Desierto $ 3,086,000 para el proyecto del Parque Comunitario de North Shore.

El Programa de Greening Urbano está financiado por los ingresos de Cap-and-Trade, que otorga subvenciones para apoyar proyectos que apuntan a reducir los gases de efecto invernadero secuestrando carbono, disminuyendo el consumo de energía y reduciendo las millas recorridas por los vehículos.

Los proyectos también convierten ambientes construidos en espacios verdes que mejoran la calidad del aire y del agua, y brindan oportunidades para caminar, andar en bicicleta y recrearse.

El North Shore Community Park es un sitio de cinco acres diseñado por residentes locales con la asistencia del Desert Recreation District y Kounkuey Design Initiative (KDI). Será el primer y único espacio verde activo en la comunidad de North Shore.

El Director General del Distrito de Recreación del Desierto, Kevin Kalman, dijo "estamos encantados de que el proyecto del parque fue seleccionado para financiamiento y estamos agradecidos con todos nuestros socios por su arduo trabajo para hacer que nuestra aplicación sea competitiva ". Kalman continuó diciendo.

La Agencia notó que el noventa y dos por ciento de los fondos que otorgaron a través del Programa de Greening Urbano se otorgaron a proyectos en comunidades desfavorecidas según lo definido por SB 535 de 2012.

El North Shore Community Park es el primero de los tres parques planificados en el este de Coachella Valley que se construirá.

Un hombre se detiene a mirar un mural en la pared del edificio financiero de la Ciudad de Coachella. El mural, pintado por el artista El Mac, forma parte del proyecto Coachella Walls de la ciudad.

El Centro de la Ciudad Seguirá Siendo el Área Objetivo Para la Venta Minorista de Cannabis

Coachella.- En su reunión del miércoles, el Concejo Municipal de Coachella dio un primer vistazo a las regulaciones propuestas para el comercio minorista de cannabis en la ciudad.

Después de pasar por la comisión de planificación con una serie de pequeños ajustes, la propuesta, - que convertiría Grapefruit Boulevard en un distrito cultural con restaurantes, música y cannabis, - ahora será revisada al menos dos veces más por el Concejo Municipal antes de ser implementado.

Revisando las sugerencias de las comisiones de planificación, el Concejo Municipal propuso expandir aún más la zona minorista del centro. Esto implicaría mantener el borde original en 2nd Street, pero adoptando la sugerencia de comisiones de planificación de mover la frontera sur a la calle 9 en el lado occidental de Grapefruit Blvd.

El comentario público se centró principalmente en posibles expansiones de la zona Retail propuesta, con varios propietarios de negocios en el área del centro de la ciudad y en Grapefruit Blvd pidiendo que sus ubicaciones fueran incluidas.

El alcalde Steve Hernández abogó por eliminar el requisito de distancia entre dispensarios, permitiendo que las ventas de cannabis estén más concentradas en la zona del centro propuesta. "Tenemos que concentrarlos, la competencia es buena", argumentó Hernández.

En una entrevista previa con The Desert Sun, Hernández también señaló que las zonas más pequeñas y densas permitirían patrullar más fácilmente por la policía que los dispensarios que se extienden a través de la ciudad.

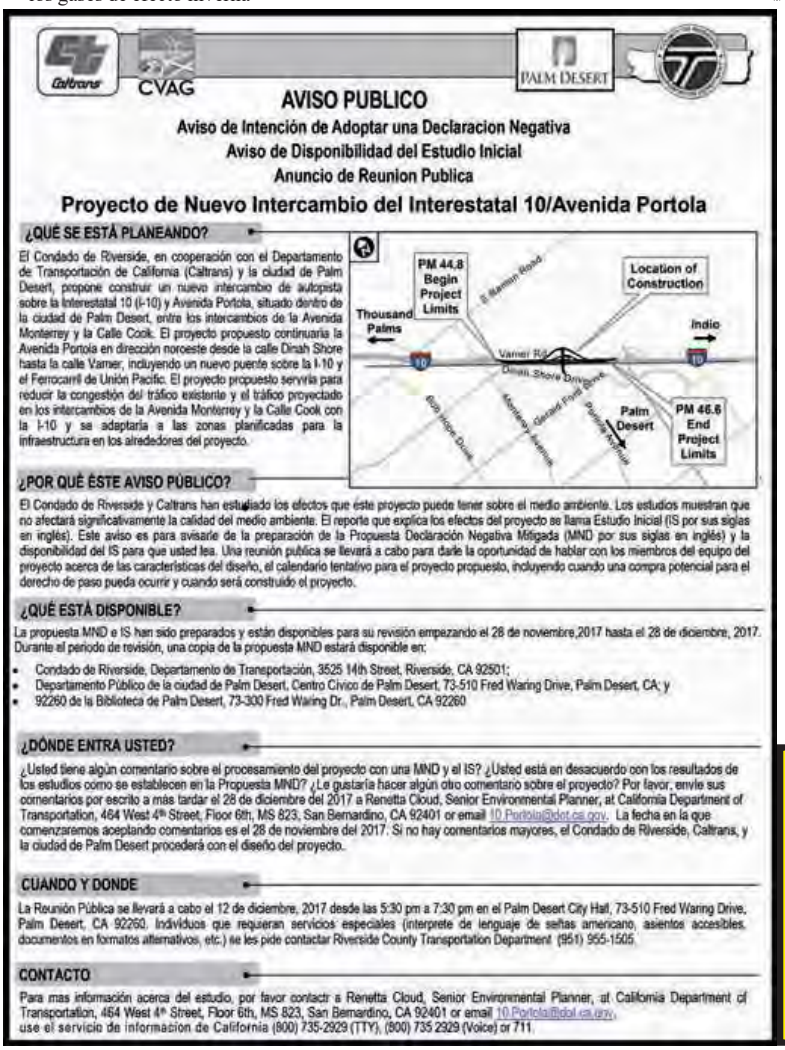
Uno de los propietarios de la avenida 48, John Kearney, solicitó al Consejo de la ciudad que reconsiderara la propuesta original de incluir la zona de demolición como lugar de venta minorista de cannabis.

"No todos quieren fumar marihuana", dijo Kearney. "Si inunda el centro de la ciudad, es posible que reciba algún tipo de reacción".

También se discutieron licencias de microcultivo, que permitirían el cultivo en lotes pequeños en combinación con el comercio minorista de cannabis. Mientras que los miembros del Concejo de la ciudad parecían estar abiertos a la idea, el personal de la ciudad no recomendó este tipo de licencias en el momento.

El Director de Servicios de Desarrollo, Luis López, señaló el enfoque de las pequeñas medidas de la ciudad respecto a cualquier tema relacionado con el cannabis en el pasado, al evaluar la idea del microcultivo. "Tenemos que ser estratégicos sobre esto también, volver y enmendarlo en una fecha posterior tal vez", dijo López.

El consenso general de la primera lectura de la propuesta fue proceder con cautela cuando se trata del número de licencias y áreas que se abrirán para la venta de cannabis. "Es más fácil agregar que quitar", dijo la concejal Betty Sánchez.



CVAG

AVISO PUBLICO

Aviso de Intención de Adoptar una Declaracion Negativa
Aviso de Disponibilidad del Estudio Inicial
Anuncio de Reunion Publica

Proyecto de Nuevo Intercambio del Interestatal 10/Avenida Portola

¿QUÉ SE ESTÁ PLANEANDO?

El Condado de Riverside, en cooperación con el Departamento de Transportación de California (Caltrans) y la ciudad de Palm Desert, propone construir un nuevo intercambio de autopista sobre la Interestatal 10 (I-10) y Avenida Portola, situado dentro de la ciudad de Palm Desert, entre los intercambios de la Avenida Monterrey y la Calle Cook. El proyecto propuesto continuaría la Avenida Portola en dirección noroeste desde la calle Dinah Shore hasta la calle Varner, incluyendo un nuevo puente sobre la I-10 y el Ferrocarril de Unión Pacific. El proyecto propuesto serviría para reducir la congestión del tráfico existente y el tráfico proyectado en los intercambios de la Avenida Monterrey y la Calle Cook con la I-10 y se adaptaría a las zonas planificadas para la infraestructura en los alrededores del proyecto.

PM 44.8 Begin Project Limits
Thousand Palms
Varner Rd
Dinah Shore Drive
Monterey Avenue
Gerald Ford Drive
Portola Avenue
Palm Desert
Location of Construction
Indio
PM 46.6 End Project Limits

¿POR QUÉ ÉSTE AVISO PÚBLICO?

El Condado de Riverside y Caltrans han estudiado los efectos que este proyecto puede tener sobre el medio ambiente. Los estudios muestran que no afectará significativamente la calidad del medio ambiente. El reporte que explica los efectos del proyecto se llama Estudio Inicial (IS por sus siglas en inglés). Este aviso es para avisarle de la preparación de la Propuesta Declaración Negativa Mitigada (MND por sus siglas en inglés) y la disponibilidad del IS para que usted lea. Una reunión pública se llevará a cabo para darle la oportunidad de hablar con los miembros del equipo del proyecto acerca de las características del diseño, el calendario tentativo para el proyecto propuesto, incluyendo cuando una compra potencial para el derecho de paso pueda ocurrir y cuando será construido el proyecto.

¿QUÉ ESTÁ DISPONIBLE?

La propuesta MND e IS han sido preparados y están disponibles para su revisión empezando el 28 de noviembre,2017 hasta el 28 de diciembre, 2017. Durante el periodo de revisión, una copia de la propuesta MND estará disponible en:

- Condado de Riverside, Departamento de Transportación, 3525 14th Street, Riverside, CA 92501;
- Departamento Público de la ciudad de Palm Desert, Centro Cívico de Palm Desert, 73-510 Fred Waring Drive, Palm Desert, CA; y
- 92260 de la Biblioteca de Palm Desert, 73-300 Fred Waring Dr., Palm Desert, CA 92260

¿DÓNDE ENTRA USTED?

¿Usted tiene algún comentario sobre el procesamiento del proyecto con una MND y el IS? ¿Usted está en desacuerdo con los resultados de los estudios como se establecen en la Propuesta MND? ¿Le gustaría hacer algún otro comentario sobre el proyecto? Por favor, envíe sus comentarios por escrito a más tardar el 28 de diciembre del 2017 a Renetta Cloud, Senior Environmental Planner, at California Department of Transportation, 464 West 4th Street, Floor 6th, MS 823, San Bernardino, CA 92401 or email 10.Portola@dot.ca.gov. La fecha en la que comenzaremos aceptando comentarios es el 28 de noviembre del 2017. Si no hay comentarios mayores, el Condado de Riverside, Caltrans, y la ciudad de Palm Desert procederá con el diseño del proyecto.

CUANDO Y DONDE

La Reunión Pública se llevará a cabo el 12 de diciembre, 2017 desde las 5:30 pm a 7:30 pm en el Palm Desert City Hall, 73-510 Fred Waring Drive, Palm Desert, CA 92260. Individuos que requieran servicios especiales (interprete de lenguaje de señas americano, asientos accesibles, documentos en formatos alternativos, etc.) se les pide contactar Riverside County Transportation Department (951) 955-1505.

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Print Form

Appendix C

Notice of Completion & Environmental Document Transmittal

2017121004

SCH #

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

Project Title: I-10/Portola Avenue New Interchange Project

Lead Agency: California Department of Transportation - District 8 | Contact Person: Renetta Cloud

Mailing Address: 464 West 4th Street, 6th Floor, MS-823 | Phone: (909) 383-6323

City: San Bernardino | Zip: 92401 | County: San Bernardino

Project Location: County: Riverside | City/Nearest Community: Palm Desert

Cross Streets: Varner Road, Portola Avenue, Interstate 10 | Zip Code: 92276

Longitude/Latitude (degrees, minutes and seconds): 33 ° 47 ′ 45.7 ″ N / 116 ° 22 ′ 14.9 ″ W | Total Acres: 182

Assessor's Parcel No.: Multiple | Section: Mltple | Twp.: 4S | Range: 6E | Base: SB

Within 2 Miles: State Hwy #: Interstate 10 | Waterways: N/A

Airports: N/A | Railways: UPRR | Schools: Xavier College Prep

Document Type:

CEQA: ☐ NOP ☐ Early Cons ☒ Neg Dec ☐ Mit Neg Dec ☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ☐ Other:

NEPA: ☐ NOI ☒ EA ☐ Draft EIS ☐ FONSI

Other: ☒ Joint Document ☐ Final Document ☐ Other:

Local Action Type:

Governor's Office of Planning & Research
DEC 04 2017
STATE CLEARINGHOUSE

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan
☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan
☐ Rezone ☐ Prezone ☐ Use Permit ☐ Land Division (Subdivision, etc.)
☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☒ Other: Transportation

Development Type:

☐ Residential: Units ____ Acres ____
☐ Office: Sq.ft. ____ Acres ____ Employees ____
☐ Commercial: Sq.ft. ____ Acres ____ Employees ____
☐ Industrial: Sq.ft. ____ Acres ____ Employees ____
☐ Educational: ____
☐ Recreational: ____
☐ Water Facilities: Type ____ MGD ____
☒ Transportation: Type New Freeway Interchange
☐ Mining: Mineral ____
☐ Power: Type ____ MW ____
☐ Waste Treatment: Type ____ MGD ____
☐ Hazardous Waste: Type ____
☐ Other: ____

Project Issues Discussed in Document:

☒ Aesthetic/Visual
☐ Agricultural Land
☒ Air Quality
☒ Archeological/Historical
☒ Biological Resources
☐ Coastal Zone
☐ Drainage/Absorption
☐ Economic/Jobs
☐ Fiscal
☒ Flood Plain/Flooding
☐ Forest Land/Fire Hazard
☒ Geologic/Seismic
☐ Minerals
☒ Noise
☐ Population/Housing Balance
☒ Public Services/Facilities
☒ Recreation/Parks
☐ Schools/Universities
☐ Septic Systems
☐ Sewer Capacity
☐ Soil Erosion/Compaction/Grading
☐ Solid Waste
☒ Toxic/Hazardous
☒ Traffic/Circulation
☒ Vegetation
☒ Water Quality
☐ Water Supply/Groundwater
☐ Wetland/Riparian
☐ Growth Inducement
☒ Land Use
☒ Cumulative Effects
☐ Other: ____

Present Land Use/Zoning/General Plan Designation:

Roadway/Transportation

Project Description: *(please use a separate page if necessary)*

The County of Riverside (County), in cooperation with the California Department of Transportation (Caltrans) and the City of Palm Desert (City), proposes to construct a new interchange on Interstate 10 (I-10) at Portola Avenue. The limits of work for this project are along I-10, approximately from post mile (PM) 44.8 to PM 46.6. The project includes the construction of a new structure crossing I-10 and the Union Pacific Railroad (UPRR), construction of associated on- and off-ramps, and the realignment of the adjacent frontage road, Varner Road. Auxiliary lanes in each direction of I-10 between the new Portola Avenue ramps and the adjacent interchanges at Cook Street and Monterey Avenue would also be constructed.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "X".
If you have already sent your document to the agency please denote that with an "S".

X	Air Resources Board	____	Office of Historic Preservation
____	Boating & Waterways, Department of	____	Office of Public School Construction
____	California Emergency Management Agency	____	Parks & Recreation, Department of
X	California Highway Patrol	____	Pesticide Regulation, Department of
____	Caltrans District # ____	X	Public Utilities Commission
____	Caltrans Division of Aeronautics	X	Regional WQCB #7
____	Caltrans Planning	____	Resources Agency
____	Central Valley Flood Protection Board	____	Resources Recycling and Recovery, Department of
____	Coachella Valley Mtns. Conservancy	____	S.F. Bay Conservation & Development Comm.
____	Coastal Commission	____	San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
____	Colorado River Board	____	San Joaquin River Conservancy
____	Conservation, Department of	____	Santa Monica Mtns. Conservancy
____	Corrections, Department of	____	State Lands Commission
____	Delta Protection Commission	____	SWRCB: Clean Water Grants
____	Education, Department of	____	SWRCB: Water Quality
____	Energy Commission	____	SWRCB: Water Rights
X	Fish & Game Region #6	____	Tahoe Regional Planning Agency
____	Food & Agriculture, Department of	X	Toxic Substances Control, Department of
____	Forestry and Fire Protection, Department of	____	Water Resources, Department of
____	General Services, Department of		
____	Health Services, Department of	____	Other: ____
____	Housing & Community Development	____	Other: ____
X	Native American Heritage Commission		

Local Public Review Period (to be filled in by lead agency)

Starting Date December 4, 2017 Ending Date January 4, 2018

Lead Agency (Complete if applicable):

Consulting Firm: ____
Address: ____
City/State/Zip: ____
Contact: ____
Phone: (____

Applicant: California Department of Transportation
Address: 464 West 4th Street, 6th Floor, MS-823
City/State/Zip: San Bernardino, CA 92401
Phone: (909) 383-6323

Signature of Lead Agency Representative: Daniella Cloud **Date:** 11/30/17

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

Appendix I Responses to Public Comments

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<u>Comment A:</u> Ms. Linda Carlone – Commented during public hearing December 19, 2017

Transcript from Court Reporter: A-1 "(I have) concerns about the flood area being so close to Ivy Ranch with mosquitos and everything sitting in a water basin, if that could be moved farther away from our entrance (to Ivy Ranch)." A-2 "And the other thing was, I'd like to see Alternative Plan 2 with the extra on-ramp. That's it."	**Response to Comment A** Thank you for your comment. **A-1:** The basin near the entrance of Ivy Ranch is designed to collect storm water during heavy rain events to reduce the potential of flooding on adjacent properties. The proposed storm drain facilities along Varner Road will be designed so that the interchange project does not worsen existing stormwater/flooding conditions. The soils in this location will percolate/evaporate over a relatively short period of time (in hours or in a couple days) and would operate much like the basins that already exist west of the Ivy Ranch. Since standing water is not anticipated to occur over longer periods of time in these storm water facilities, no increase in mosquito populations are anticipated. **A-2:** The Project Development Team has selected Alternative 2 as the preferred alternative. Additional discussion of this process is included in Section 1.7 of the Final IS/EA.

<u>Comment B:</u> Mr. Ted Seldin – Commented during public hearing December 19, 2017

Transcript from Court Reporter: "Well, I guess I should explain who I am. I'm one of the investors in the Millennium Palm Desert Project where we're developing single-family homes and a whole new commercial (facility) there. And of course, we've been watching the progress on this project for some time because it's so important for not only our development, but also for the economic benefit for the whole city and the whole area." "We're pleased with the progress that has been made. If it can be accelerated in any way, we would look forward to that, also; however, we know and understand that certain procedures have to be followed. "Apparently, some of our property may be affected slightly in terms of right-of-way, but we're prepared to cooperate so that we can work things out quickly with the planners. And we're very pleased that it is being moved forward. "But I think it will have a great economic benefit to the entire area, as we're working right now with national businesses, national firms that are interested. And what they're asking for from us is definitive dates, which if they go ahead, which they're interested in doing, they will know that the interchange will be there. So when their businesses open, they'll have the traffic – benefit of the traffic coming off the interstate. "And needless to say, there will be an economic benefit to the whole are to get more and more of those 90,000 cars that go by there every day to come in and go to El Paseo and all the other great businesses in Palm Desert. "So we look forward to the dates and the project moving ahead as planned. Thank you."	**Response to Comment B** Thank you for your comment and your support for the project. We appreciate your future cooperation on the project. Riverside County, the City of Palm Desert, and Caltrans intend to move the project towards construction as efficiently as possible.

Comment C: Mr. Thomas Hughes – Comment received via email on December 5, 2017

From: Thomas Hughes [mailto:tjeffreyhughes63@gmail.com]
Sent: Tuesday, December 5, 2017 10:29 PM
To: 10 Portola@DOT <10.portola@dot.ca.gov>
Subject: study

please same a copy of any study concerning interstate 10/portola avenue new interchange project. thank you thomas hughes

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On Thu, Dec 21, 2017 at 11:17 AM, 10 Portola@DOT <10.portola@dot.ca.gov> wrote:

> Good morning Thomas.
> You may review the document electronically at the following links:
>
> The County's web address is:
> http://rcprojects.org/portola/
>
> Or if you go to www.caltrans8.info it should link you to the County web page.
>
> If you are requesting a hard copy or a CD version of the document, please let me know as soon as possible so we may provide that to you.
> I will need your mailing address.
> Thank you for your interest in this project.
> Sincerely,
>
> Illeen Prentiss,
> Associate Environmental Planner
> District 8 - Environmental Studies A
> 464 W. 4th Street, MS 823
> San Bernardino, CA 92401-1400
> 909-388-7070 office

Response to Comment C

Thank you for your comment. A hard copy of the environmental document was mailed to your residential address in Thousand Palms in early January. No follow up comments from Mr. Hughes have been received to date.

From: Thomas Hughes [mailto:tjeffreyhughes63@gmail.com] **Sent:** Thursday, December 21, 2017 1:24 PM **To:** 10 Portola@DOT <10.portola@dot.ca.gov> **Subject:** Re: study Please send me a printed copy of the study. My address is Thomas Hughes. 73330 San Carlos Dr. Thousand Palms, Ca. 92276 Thank you!.	

<u>Comment D:</u> Mr. Steve Vilarino – Comment received via email on December 6, 2017

-----Original Message----- From: Steve Vilarino [mailto:smv_2000@hotmail.com] Sent: Wednesday, December 6, 2017 3:14 PM To: 10 Portola@DOT <10.portola@dot.ca.gov> Subject: Interstate 10 portola new interchange D-1 D-2 D-3 I am apposed because it will create more noise in my back yard pollution de value property values. We already have a off ramp at Monterey and cook It's not needed even when the area expands more. Would you buy a house near or next to a freeway off ramp? Steve vilarino 73965 Mondrian pl palm desert At Gerald ford and portola	**Response to Comment D** Thank you for your comment, and your concerns regarding noise, pollution and property values. **D-1:** A noise study was prepared for this project, which concluded that noise levels are expected to increase by only two decibels at your property between the existing condition and the design year of 2040 with the project constructed (See Table 2.21 on pages 183-187, and Figure 2.22 on pages 179-181). Although your house, located at 73965 Mondrian Place, was not individually analyzed in the Noise Study because it is over 1380 feet south of the project area, it would be expected to experience a similar change in noise condition as the house at 35894 Raphael Drive (identified as ST12/R50 and located approximately 10 houses north of your property) since both properties back yards are adjacent to Portola Avenue and are south of the project area. The house at 35894 Raphael Drive is approximately 800 feet south of the project area. The outdoor noise condition during peak hours in 2015 at ST12/R50 is 54 decibels in 2015. It is predicted to be 56 decibels in 2040 if the project is constructed, only one decibel higher than if the project is not constructed. 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. The NAC for residences is 67 dBA. Since ST12-R50, which is representative of the noise levels expected at your property did not approach or exceed the Noise Abatement Criteria 67 dBA, noise barrier analysis was not performed. Please see Section 2.2.7 of this Environmental Document for more information on the noise analysis for this project. **D-2:** An Air Quality Report was also prepared which analyzed long-term emissions caused by increased vehicle usage, as well as short term emissions generated during construction. Please see Section 2.2.6 of this Environmental Document for more information on the analysis of air quality for this project. The Southern California Association of Governments Transportation Conformity Working Group reviewed this project and determined that it is Not a Project of Air Quality Concern in April of 2011 and again in January of 2015. Additionally, a construction emissions analysis was prepared that confirmed the project would not exceed any of the local construction emissions standards set by the South Coast Air Quality Management District. As a result, no potentially significant impacts to air quality are expected as a result of this project (see Section 2.2.6 for more information on the air quality analysis). **D-3:** The project is needed because the Cook Street and Monterey Interchanges are already

	experiencing traffic congestion and it is projected to worsen substantially over the next 20 years as the local area continues to grow. The City of Palm Desert's General Plans of 2016 and 2004 identifies the Portola Avenue/I-10 Interchange as part of their circulation element to help ease congestion associated with the projected future residential and commercial growth of the City over the next 20 years. Additionally, the County of Riverside also list the interchange in their General Plan (2012) for regional transportation.

<u>Comment E:</u> South Coast Air Quality Management District – Received via email on December 27, 2018

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SENT VIA E-MAIL AND USPS: December 27, 2017
10.Portola@dot.ca.gov
Renetta Cloud, Senior Environmental Planner
California Department of Transportation, District 8
Division of Environmental Planning
464 West 4th Street, 6th Floor MS-823
San Bernardino, CA 92401-1400

Negative Declaration (ND) for the Proposed Interstate 10/Portola Avenue New Interchange Project

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the Lead Agency and should be incorporated into the Final ND.

SCAQMD Staff's Summary of Project Description
The Lead Agency proposes to construct a new interchange on Interstate 10 (I-10) at Portola Avenue in the City of Palm Desert between the Monterey Avenue and Cook Street interchanges (Proposed Project). The Proposed Project would also include construction of a new bridge structure over I-10 and the Union Pacific Railroad. The Proposed Project is intended to accommodate existing and forecasted traffic and relieve congestion. Construction is expected to occur over 36 months[1].

Air Quality Analysis
SCAQMD staff recommends that the Lead Agency provide information in the Final ND to support the conclusion that the construction-related air quality impacts are less than significant. In the air quality analysis of the ND, the Lead Agency conducted air quality conformity analysis[2] but did not quantify emissions from construction activities. One of the basic purposes of CEQA is to inform government decision makers and the public about the potential, significant environmental effects of proposed activities (CEQA Guidelines Section 15002(a)(1)). A negative declaration is appropriate when the Lead Agency finds that the project will not have a significant effect on the environment (CEQA Guidelines Sections 15070 to 15075). Reasons to support this finding shall be documented in the initial study. Without quantifying emissions from construction activities, the ND has not made that documentation which serves as substantial evidence to support a fair argument that the Proposed Project would not have any adverse effects on air quality. Therefore, SCAQMD staff recommends that the Lead Agency perform and disclose Proposed Project-specific analysis of the regional and localized air quality impacts in the Final ND. The regional construction emission impacts[3] can be compared to SCAQMD's regional air quality CEQA significance thresholds to determine the significance of air quality impacts. Based on a review of the aerial photographs, SCAQMD staff found that sensitive receptors (residences) are located approximately a quarter mile south of the Proposed Project. Therefore, potential localized construction-related air quality impacts from the Proposed Project should be quantified and evaluated to ensure that any nearby sensitive receptors are not adversely affected by the construction activities that are occurring

E-1

[1] ND. Page 253.
[2] *Ibid.* Pages 154 to 172.
[3] Regional construction emission impacts can be estimated using the Sacramento Roadway Emissions Model http://www.aqmd.gov/home/regulations/ceqa/air-quality-modeling or applicable emission calculation methodologies from the SCAQMD California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 available on SCAQMD's website here: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993)

Response to Comment E

E-1: Thank you for your comment. Section 2.2.6 of this Environmental Document addresses the considerations identified by South Coast Air Quality Management District, with the exception of construction conformity. A discussion of construction conformity has now been incorporated into Section 2.2.6 on pages 172-173, excerpts of which follow.

Construction Conformity

The project is anticipated to be in construction for less than two years. Construction activities will not last for more than 5 years at one general location, so construction-related emissions do not need to be included in regional and project-level conformity analysis (40 CFR 93.123(c)(5)). Adverse effects of construction activities cause increased dust-fall and locally elevated levels of total suspended particulate. Dust-fall can be a nuisance to neighboring properties or previously completed developments surrounding or within the project area and may require frequent washing during the construction period. Further, asphalt-paving materials used during construction will present temporary, minor sources of hydrocarbons that are precursors of ozone.

The project's construction is anticipated to take 24 months. The project's construction emissions were estimated using the Roadway Construction Emissions Model by the Sacramento Metropolitan Air Quality Management Districts (SMAQMD, 2016).

in close proximity. The SCAQMD guidance for performing a localized air quality analysis can be found on the SCAQMD web page at: http://www.aqmd.gov/ceqa/handbook/LST/LST.html.

Pursuant to CEQA Guidelines Section 15074, prior to approving the Proposed Project, the Lead Agency shall consider the ND for adoption together with any comments received during the public review process. SCAQMD staff is available to work with the Lead Agency to address any air quality questions that may arise from this comment letter. Please contact me at lsun@aqmd.gov if you have any questions.

Sincerely,

Lijin Sun

Lijin Sun, J.D.
Program Supervisor, CEQA IGR
Planning, Rule Development & Area Sources

LS
RVC171205-04
Control Number

<u>Comment F:</u> Augustine Band of Cahuilla Indians – Received via USPS on January 15, 2018

AUGUSTINE BAND OF CAHUILLA INDIANS
PO Box 846 84-481 Avenue 54 Coachella CA 92236
Telephone: (760) 398-4722
Fax (760) 369-7161
Tribal Chairperson: Amanda Vance
Tribal Vice-Chairperson: William Vance

January 10, 2018

Renetta Cloud
California Department of Transportation, District 8
Division of Environmental Planning
464 West 4th Street, 6th Floor MS-823
San Bernardino, CA 92401-1400

RE: File 08-RIV-010-PM 44.8/ 46.6
Interstate 10/ Portola Avenue New Interchange Project

Dear Ms. Cloud -

Thank you for the opportunity to offer input concerning the development of the above-identified project. We appreciate your sensitivity to the cultural resources that may be impacted by your project, and the importance of these cultural resources to the Native American peoples that have occupied the land surrounding the area of your project for thousands of years. Unfortunately, increased development and lack of sensitivity to cultural resources has resulted in many significant cultural resources being destroyed or substantially altered and impacted. Your invitation to consult on this project is greatly appreciated.

F-1

At this time we are unaware of specific cultural resources that may be affected by the proposed project. We encourage you to contact other Native American Tribes and individuals within the immediate vicinity of the project site that may have specific information concerning cultural resources that may be located in the area. We also encourage you to contract with a monitor who is qualified in Native American cultural resources identification and who is able to be present on-site full-time during the pre-construction and construction phase of the project. Please notify us immediately should you discover any cultural resources during the development of this project.

Very truly yours,

Augustine Band of Cahuilla Indians

Amanda Vance

Amanda Vance
Tribal Chairperson

Response to Comment F

F-1: Thank you for your comment. To date, no cultural sites have been identified in the project area. Based on the cultural resource research, Native American Consultation, and archaeological pedestrian surveys of the Area of Potential Effect, Caltrans has determined that the potential for discovering previously unknown cultural resources during construction is low. The request for Native American monitoring was previously addressed during the Section 106 process and was denied in accordance with the 2003 Winters Memorandum which is the Caltrans policy for determining when Native American monitoring is appropriate.

However, Caltrans remains committed to ensuring cultural and tribal resources are protected and best management practices have been included in the project to minimize the potential for impacts. If cultural materials are discovered during construction, all earth-moving activity within 60 feet of the immediate discovery area will be diverted until a Caltrans approved qualified archaeologist can assess the nature and significance of the find. If it is determined that the find involves tribar resources, you will be notified immediately.

Additionally, if human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area

	suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendent (MLD). The person who discovered the remains will contact Gary Jones, District 8 Native American Coordinator at (909) 383-7505 or District 8 Cultural Studies Branch Chief Andrew Walters at (909) 383-2647 so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

<u>Comment F:</u> State Clearinghouse – Received via USPS on January 8, 2018

 EDMUND G. BROWN JR. GOVERNOR STATE OF CALIFORNIA GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH STATE CLEARINGHOUSE AND PLANNING UNIT  KEN ALEX DIRECTOR January 3, 2018 Renetta Cloud California Department of Transportation, District 8 464 W. 4th Street, 7th Floor San Bernardino, CA 92401-1400 Subject: I-10/Portola Avenue New Interchange Project SCH#: 2017121004 Dear Renetta Cloud: The State Clearinghouse submitted the above named Negative Declaration to selected state agencies for review. The review period closed on January 2, 2018, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office. Sincerely, Scott Morgan Director, State Clearinghouse 1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044 (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov	**Response to Comment F** Thank you for your comment. It has been added to the Final Environmental Document.

<u>Comment G:</u> Dmitri Hernandez, Charter Spectrum – Received via email on January 18, 2018

G-1-6

From: Hernandez, Dmitri A [mailto:Dmitri.Hernandez@charter.com]
Sent: Thursday, January 18, 2018 1:42 PM
To: 10 Portola@DOT <10.portola@dot.ca.gov>
Cc: Lomboy, Tony <Tony.Lomboy@charter.com>
Subject: Interstate 10 Portola New IC

Hi Renetta,

I am the Construction Coordinator for this area in Palm Desert. After reviewing the section on utilities in the Draft/Survey that I have received in the mail, I have a few questions about the brand new bridge and over crossing;

1. When will you have a final design for me to review?
2. Do you have a set time for construction to begin?
3. Please you please advise on trench dates for relocation of Spectrum existing fiber cable on Varner Rd?
4. Is it possible for Spectrum to request to have 2-3" conduit pipes to be installed in this new bridge crossing?
5. Who is going to reimburse Charter/Spectrum for "Forced Move Relocation" of existing Fiber optic cable?
6. Could you please advise me on any up and coming "Pre-Construction" meetings regarding this project.

Thank You!

Dmitri Hernandez
Project Coordinator I, Construction
Charter Communications – Desert Cities
83473 Avenue 45
Indio, CA 92201
Office: 760-674-5540
Cell: 760-275-2224
Fax: 760-674-5547

Charter Spectrum

Response to Comment G

Thank you for your comment.

G-1: The project is finalizing the Project Approval and Environmental Document phase and is expected to be completed in April or May 2018. Final Design plans are expected to be ready for an informal review by project stakeholders (such as Charter Spectrum) by July 2018. Final design and construction bidding is expected to occur in early 2019.

G-2: Construction is expected to start in Spring or Summer of 2019.

G-3: At this time specific dates for utility relocations have not been determined. Coordination between the County of Riverside and utility companies will be ongoing throughout the design phase of the project. The County will coordinate directly with utility companies that require relocations as a result of this project's construction.

G-4: During the design phase of the project, the County of Riverside will coordinate with all utility companies that would like to have facilities within the bridge structure. The large width of the bridge should allow for enough room for

	all interested utility companies to locate facilities within the bridge. G-5: Determination of liability for relocations will be determined during the design phase of the project. All liability determinations will be based on prior rights information and the County of Riverside will take into consideration information provided by the utility companies. G-6: During the design phase, the County of Riverside will coordinate with all utility companies and hold meeting as needed or requested. Construction is expected to begin in Spring or Summer of 2019. Preconstruction meetings will be held after the construction contractor low bidder has been identified and utility companies will be invited to participate in those preconstruction meetings if their utility relocations need to occur during the main project construction phase.