I-10 Corridor Environmental Impact Report (EIR)/Environmental Impact Study (EIS) Summary

The Draft Environmental Impact Report (EIR)/Environmental Impact Study (EIS) for the I-10 Corridor is anticipated to be released to the public for review in December of this year. The Draft EIR/EIS complies with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA), disclosing to the public why the project is being proposed, what alternatives have been 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 EIR/EIS analyses three alternatives: Alternative 1 – the No Build Alternative, Alternative 2 – the High Occupancy Vehicle Lane Alternative and Alternative 3 – the Express Lanes Alternative. The SANBAG Board of Directors identified Alternative 3 as the Locally Preferred Alternative at its July 2, 2014 meeting.

A series of technical studies have been prepared for the project pursuant to Caltrans requirements. The Caltrans 5-Step Review Process for preparation of an EIR/EIS requires review between the local District office and Caltrans Headquarters (HQ) in Sacramento, including a thorough legal review by HQ as shown below. As of this date, the document has gone through the Step 1 – "District Quality Control Review" and is now with HQ. We are scheduled to receive HQ comments for Step 2 in early September.

Step 1: District Quality Control Review

Step 2: HQ Division of Environmental Analysis and Legal Reviews

Step 3: District/Region Final Revision and Review Process Summary

Step 4: HQ Pre-Approval Review

Step 5: District Approval of the Draft Document for Public Circulation

As mentioned previously, the public review of the Draft EIR/EIS will be initiated later this year. The current schedule identifies circulation between December 3, 2014 and February 5, 2016. CEQA and NEPA regulations require a 45-day circulation period, but because we will be circulating over the holidays we felt it prudent to extend the comment period to 60 days to accommodate the public. Public comments will be reviewed and the document will be revised to address all comments received. We will also be hosting public community open houses in January 2016 where we will make our technical specialists available to answer questions and discuss the project with the community.

The Draft EIR/EIS identifies approximately 142 avoidance, minimization, and/or mitigation measures. The following is a summary of the document.

Chapter 1 - Proposed Project

Chapter 1 of the Draft EIR/EIS identifies the project location and setting, discusses the programming status (Regional Transportation Plan and Federal Transportation Improvement Program) and planning background, identifies the purpose and need of the project, summarizes the existing traffic capacity and levels of service, legislation and project funding, modal interrelationships and system linkages (i.e. Freight and Logistics Movement, LA/Ontario International Airport, Metrolink, Omnitrans, and Vanpool and Carpool Programs), air quality improvements, and discusses independent utility and logical termini.

Chapter 2 - Project Alternatives

The Draft EIR/EIS dedicates an entire chapter describing the project alternatives, including the differences between the no-build and two build alternatives (HOV and Express Lanes). Chapter 2 describes the connector ramp and interchange improvements, local street improvements, bridge/structure improvements, railroad involvement, drainage improvements, proposed CHP enforcement areas, mainline improvements, ingress/egress access points, common design features of the build alternatives, and unique features of the build alternatives. It also includes tolling infrastructure and preliminary express lane operation policies for Alternative 3. In addition, it describes the Transportation System Management and Transportation Demand Management Alternatives (techniques to improve traffic flow, promote safety, increase transit and ride share participation in the corridor) and construction staging. Chapter 2 also includes a discussion on the identification of the Locally Preferred Alternative (LPA) by the SANBAG Board of Directors, which occurred July 2, 2014. The Board chose the Express Lanes Alternative as the LPA for the following reasons:

- Express Lanes are managed through pricing to maintain optimal traffic flow conditions in perpetuity so drivers always have an option for mobility through the corridor. The Express Lanes can be managed to flow at optimum speed by raising and lowering toll pricing. A lane operating at optimum speed allows throughput of 1,800-2,000 vehicles per hour. A congested lane throughput is 800-1,000 cars per hour.
- The tolls generated by the Express Lanes supplement traditional funding to help pay for the project.
- The Express Lanes give users a reliable choice for a faster trip.

Chapter 2 also discusses alternatives considered but eliminated from further discussion because they did not meet the purpose and need of the project and summarizes the various permits and approvals needed by other Federal, State, County and local jurisdictions.

Chapter 3 – Affected Environment, Environmental Consequences, and Avoidance, Minimization and /or Mitigation Measures

Analysis of each environmental factor in the Draft EIR/EIS includes a discussion of the affected environment; environmental consequences including construction impacts, permanent impacts, and, in some cases, indirect impacts; and avoidance, minimization, and/or mitigation measures for each project alternative, including the no build alternative and two build alternatives. This analysis is based on a study area that ranges from 50 feet to 0.5 mile from the project footprint, depending on the topic. Pursuant to Caltrans requirements, 18 technical studies have been completed for the Draft EIR/EIS. A brief summary of each section of Chapter 3 follows.

HUMAN ENVIRONMENT

Land Use

This section is based on the Community Impact Assessment (July, 2015) (CIA) and discusses impacts to land use as a result of implementation of the proposed project including existing and future land use; consistency with state, regional and local plans and programs; and parks and recreation facilities. It identifies environmental consequences related to full and partial acquisitions by alternative, as well as temporary construction impacts. It discusses project consistency with the various land use plans for the region, ranging from the Southern California Associated Governments Regional Transportation Plan to the County of San Bernardino General Plan, to City General Plans. Based on this analysis, the Land Use section requires that Caltrans implement a Transportation Management Plan (TMP) during construction to minimize project-related construction disruptions and include construction related traffic strategies in coordination with local jurisdictions.

The project will affect facilities that are protected by the Park Preservation Act which prohibits local and state agencies from acquiring any property that is in use as a public park unless the acquiring agency pays sufficient compensation or land, or both, to replace the park land and any park facilities impacted.

A total of 39 public parks and recreation areas and 4 trails are located within 0.5 mile of the existing I-10 corridor. Alternative 3 would impact 0.14 acres of MacArthur Park in the City of Montclair, which will require compensation as described above.

A total of seven minimization, avoidance and/or mitigation measures are proposed as a result of land use impacts, including replanting temporarily disturbed landscaping, maintaining circulation for recreational users, implementing detours, closing the Santa Ana River trail at night for work due to high daytime use, and compensating Montclair for park acquisition (0.14 acre).

Growth

Analysis of the potential growth-inducing impacts of the proposed project is based on the CIA which provides demographic information from the 2010 United States Census data, the Southern California Association of Governments (SCAG) 2012–2035 Regional Transportation Plan (RTP), and growth forecasts for the cities of Pomona, Claremont, Montclair, Upland, Ontario, Fontana, Rialto, Colton, San Bernardino, Loma Linda, Redlands, and Yucaipa, as well as San Bernardino and Los Angeles counties.

In terms of foreseeable impacts to resources of concern, the build alternatives would not affect resources of concern (e.g., utilities, population, and housing) because land use within the study area includes plans for future growth. Service providers also regularly evaluate growth trends and provide required infrastructure upgrades as needed. The build alternatives would facilitate the improved mobility and capacity for future conditions and would not result in project-related growth or influence growth.

The build alternatives are intended to reduce congestion and improve travel times within the corridor. The build alternatives would not accommodate additional traffic beyond what is currently projected. Therefore, no avoidance, minimization, and/or mitigation measures are required for growth.

Farmlands

The CIA includes information related to impacts to various types of farmlands as required by the State and Federal government for all construction projects.

The No-build and Alternative 2 (HOV) would have no impacts on any type of farmland, while Alternative 3 (Express Lanes) would require 11,033 square feet (.253 acre) of acquisition of farmland, 2,801 square feet (.047 acre) of permanent footing easements and 36,925 square feet (.847 acre) of temporary construction easements.

Avoidance, minimization and/or mitigation measures include fencing the limits of construction for all temporarily and permanently impacted farmlands to avoid additional impacts, preserving all citrus trees, and recontouring and restoring any temporarily impacted farmlands to pre-project conditions.

Community Impacts

This section discusses impacts to the community as a result of implementation of the proposed project. The analysis is based on the results of the CIA prepared for this project.

Community character is all of the attributes, including social and economic characteristics, and assets that make a community unique and that establish a sense of place for its residents.

Community cohesion is the degree to which residents have a "sense of belonging" to their neighborhood, a level of commitment to the community, or a strong attachment to neighbors, groups, and institutions, usually because of continued association over time. This section of the EIR/EIS discusses community cohesion and identifies the temporary and permanent property acquisitions needed for the project which are analyzed to determine if there are affects to community character or cohesion or if any socioeconomic groups are disproportionally affected by the project or, based on the CIA analysis, the project would not divide an existing community or create a barrier between communities.

In addition to the standard environmental justice analysis that is performed for Caltrans projects, an Equity Assessment was prepared for I-10 and Interstate 15 (I-15) in San Bernardino County to address concerns that Express Lanes, also known as high-occupancy toll (HOT) lanes, could create an access barrier and be unfair to individuals with lower incomes.

Overall, the assessment found that the Express Lanes Alternative is projected to have several benefits for all users including low-income drivers. Notably, the travel modeling indicated that travel times in the general purpose (GP) lanes would improve on both I-10 and I-15 if Express Lanes are implemented compared with other project alternatives. The Express Lanes provide a new travel option for low-income (and other) drivers, which they do not enjoy today. Analysis of potential toll pricing indicated that there could be times when a low-income driver would find the Express Lanes time savings attractive. For example, a low-income driver may find time savings beneficial when running late for work, or for other reasons, such that a toll might be less expensive than per-minute late fees at a day care center. However, low-income drivers might find toll account requirements burdensome, particularly account maintenance fees.

Equity concerns also relate to who pays for the facility compared with who benefits and how toll revenues would be used. It has been found that tolls, which are paid by users for the direct benefit of an uncongested trip, are even more equitable than sales taxes, which have found broad support in San Bernardino County. The I-10 and I-15 projects would be funded by a combination of toll revenues, sales tax revenues, and gas tax revenues. Eventually, toll revenues could become the primary source of project funding, meaning that the project funding would become more equitable over time.

Temporary construction activity may affect local streets and access to communities and business within the study area. Implementation of a Traffic Management Plan will be required to minimize impacts. Coordination will be conducted with affected property owners to avoid and minimize parking impacts. In addition, businesses that are subject to relocation would receive compensation at fair market value. The CIA analyzes all temporary and permanent acquisitions needed for the build alternatives. State and Federal laws mandate compensation requirements for temporary and permanent business and residential acquisitions.

Coordination with transit providers will occur to comply with applicable procedures for temporary bus stop relocations or other disruptions to transit services during construction.

All pedestrian facilities will be designed to meet or exceed requirements of the Americans with Disabilities Act (ADA) and current safety standards and access to pedestrian and bicycle facilities shall be maintained to the extent practicable during the construction period.

Avoidance, minimization, and/or mitigation measures also include the consideration of a policy to waive account maintenance fees for low-income households and consideration of policies that allow the use of cash to open and replenish toll accounts and implement video licensing or other technology that eliminates the need for a transponder deposit for low income households.

Utilities/Emergency Services

The CIA analyzes utilities and emergency services. This section of the Draft EIR/EIS summarizes the major utilities found within the project area. There are approximately 655 utilities within the project study area, including overhead and underground electrical, natural gas, oil and gasoline pipelines, liquid oxygen line, hydrogen gas line, nitrogen gas line, telephone and communication, cable television, water, and sewer. Up to 131 of the 665 utilities within the project area have the potential to be relocated by the proposed improvements. In order to avoid, minimize and/or mitigate impacts, utility relocation plans and coordination with utility providers will be required.

This section also analyzes law enforcement services, fire protection and emergency services, and identifies emergency medical facilities in the project study area. While no permanent impacts will occur, during construction of Alternatives 2 and 3, the ability of emergency service providers to meet response times could be impaired as a result of temporary traffic delays, road, lane, and/or ramp closures, or detours. Project construction activities along the project area could potentially delay or affect the response time for CHP and emergency services providers.

Coordination with the applicable fire departments will be required to maintain defensible spaces around construction zones, and maintain firefighting equipment on-site. Contractors must also post emergency services phone numbers at the job site. The Traffic Management Plan for the project will require communication with emergency service providers on detours and lane closures to minimize or eliminate any impacts to response times.

Traffic and Transportation / Pedestrian and Bicycle Facilities

This section addresses the potential effects to traffic and circulation associated with construction of the proposed project and compares the relative benefits of each alternative. The traffic circulation analysis is based on the results of the project Traffic Study (August 2014).

The Traffic Study evaluates the existing and future traffic flow conditions within the study area and summarizes the peak hour level of service traffic volumes for the no-build and build alternatives.

There are 33 local interchanges within the limits of the I-10 Corridor Project (I-10 CP); however, the project does not require local interchange improvements to meet the project purpose and need. Working with Caltrans, an intersection criterion was established to determine which local interchanges required analysis. The interchanges are:

- Monte Vista Avenue interchange
- Mountain Avenue interchange
- Euclid Avenue interchange
- Vineyard Avenue interchange
- Etiwanda Avenue interchange
- Pepper Avenue interchange
- La Cadena Drive/9th Street interchange
- Tennessee Street interchange
- Ford Street interchange
- Wabash Avenue interchange

Additionally, traffic operations at the I-10/Interstate 15 (I-15), I-10/Interstate 215 (I-215), and I-10/SR-210 system interchanges were also evaluated. Additional details from the traffic study incorporated into this section including volume to capacity ratios, speed summaries, corridor travel times, vehicle hours of delay, etc. The Traffic Study looks at the various alternatives in the a.m. and p.m. peak periods.

This section also analyzes pedestrian and bicycle facilities, as well as construction related impacts such as corridor lanes, arterial and ramp closures.

Avoidance, minimization, and/or mitigation measures include the requirement for a Traffic Management Plan. Potential construction-related traffic and circulation/pedestrian and bicycle impacts would be minimized through implementation of a comprehensive Traffic Management Plan. The Traffic Management Plan is designed to minimize traffic delays that may result from lane restrictions or closures during construction operations and move motorists, pedestrians, and bicyclists through work zones quickly and safely through a robust public information process, thoughtful construction strategies and contingency plans.

Visual/Aesthetics

This section describes the aesthetic and visual resource conditions within the project limits and also discusses potential aesthetic impacts that could result from implementation of the proposed project build alternatives. The Visual Impact Analyses (March 2015) was prepared

pursuant to Caltrans standards, which require the analyses of three visual quality traits (i.e., vividness, intactness, and unity) and four visual character traits (i.e., scale, diversity, continuity, and dominance) for the existing and proposed views. In addition, visual simulations were prepared for various view corridors.

Construction of the build alternatives would result in changes to the visual quality and/or character associated with vegetation removal, construction activities, and the introduction of new and modified permanent structures. For the build alternatives, removal of the eucalyptus trees and other vegetation within the interchange areas would likely have the greatest impact on the visual quality; however, this effect would be temporary until trees grow back to existing conditions. Other elements, such as replacement structures, new retaining walls, and soundwalls, would be a permanent change to existing viewsheds.

This section identifies 27 avoidance, minimization and/or mitigation measures including following the guidelines from the Caltrans I-10 Corridor Master Plan, preserving as much vegetation as possible and revegetating disturbed areas, maximizing vegetation in drainage and water quality elements and making them look natural, identifying aesthetic treatments for retaining walls, soundwalls, bridges, and concrete median barriers, including vine plantings on soundwalls, and designing ornamental fencing as shown in the Corridor Master Plan for all overcrossings, pedestrian bridges, or other elements associated with pedestrian traffic.

Cultural Resources

Cultural resources are a key consideration in any project. The main historic resource in the Corridor area that will be impacted is Euclid Avenue in the Cities of Ontario and Upland. Euclid is a local and state designated cultural resource and the design of the corridor in this area has required extensive coordination with both cities as well as approval of the design by Caltrans and the California State Historic Preservation Office.

A Historic Property Survey Report (HPSR) (April 2015), a Historical Resources Evaluation Report (HRER) (April 2015), an Archaeological Survey Report (ASR) (April 2015), and a Finding of No Adverse Effect with Non-Standard Conditions (FNAE) (May 2015) were prepared for this project.

Native American consultation, coordination with local historical societies/historical preservation groups, and field surveys for archeological and historical resources were conducted.

Five historic properties exist within the project study area, including Euclid Avenue in the cities of Ontario and Upland, the Curtis Homestead in Loma Linda, the Mill Creek Zanja, a residence at 1055 E. Highland Avenue, Redlands, and the Peppers/El Carmelo property in Redlands.

In the Finding of No Adverse Effect Report prepared for the project, Caltrans determined that Alternatives 1, 2, and 3 will result in a finding of No Adverse Effect on the Mill Creek Zanja, the Peppers/El Carmelo property, 1055 E. Highland Avenue, and the Curtis Homestead; Alternatives 1 and 2 would have No Adverse Effect on Euclid Avenue/SR-83; and Alternative 3 would have No Adverse Effect with Conditions on Euclid Avenue/SR-83. The conditions were identified in consultation with the cities of Ontario and Upland and Caltrans.

There are eight avoidance, minimization and/or mitigation measures that have been identified for cultural resources including cultural monitoring, stipulations to divert construction if artifacts are uncovered, standard notification requirements if human remains are discovered, specifics related to the Euclid Avenue design, including Caltrans oversight, and the protection of the Curtis Homestead in place.

PHYSICAL ENVIRONMENT

Hydrology and Floodplains

This section is based on the Location Hydraulic Study (December 2014) and the Floodplain Evaluation Report (December 2014). The proposed project has been designed to minimize impacts, where possible, by taking reduced amounts of right-of-way and limiting the grading footprint to minimize impacts to existing structures, designing transitions between culvert outlets, headwalls, wingwalls, and channels to reduce turbulence and scour and using appropriate, energy dissipation devices as necessary.

Avoidance, minimization and/or mitigation measures include providing positive drainage during construction, implementing recommended BMPs as identified in the Storm Water Data Report (SWDR), including erosion control and water quality protection, developing a contingency plan for unforeseen discovery of underground contaminants, limiting construction activities between October and May to those actions that can withstand high flows and providing adequate conveyance capacity at bridge crossings to ensure no net increase in velocity.

Water Quality and Storm Water Runoff

This section describes the water quality control measures (i.e., Best Management Practices [BMPs]) that would minimize potential impacts of the project pursuant to the Water Quality Assessment Report (May 2015). This section includes a range of topics related to water resources, including receiving water bodies, surface water resources, urban and agricultural water supply, and the conveyance of floodwaters. Groundwater is also discussed.

The avoidance, minimization and/or mitigation measures include the need to comply with State storm water documentation and reporting requirements to implement storm water BMPS, managing the discharge of construction water, obtaining regulatory permits for the discharge of

dredged or fill material in waters of the U.S. and State, and implementing post construction permanent treatment BMPs and erosion control measures.

Geology/Soils/Seismic/Topography

This section of the environmental document references findings from the Caltrans Preliminary Geotechnical Report (January 2015) and discusses geology, soils, and seismic concerns as they relate to public safety and project design including liquefaction potential and seismically induced settlement, seismicity, groundwater, soil expansion, soil erosion and material disposal.

The avoidance, minimization, and/or mitigation measures include the excavation of soils borings and preparation of detailed geotechnical studies during the project's final design, implementing Caltrans engineering requirements for all structures based on the soils and geology conditions, and monitoring during construction by a licensed geologist and engineer, who must ensure that all conditions are met and certified.

Paleontology

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 Paleontological Identification Report/Paleontological Evaluation Report (PIR/PER) (December 2014) was completed for the project. The purpose of the PIR/PER is to assess the potential for impacting fossil resources along Interstate 10 (I-10) during the construction phase to widen the freeway. Significant fossil findings are catalogued and archived.

In order to salvage fossils, several avoidance, minimization, and/or mitigation measures have been identified. They include preparation of a project specific Paleontological Mitigation Plan, field monitoring by a qualified paleontologist, and preparation of a paleontological mitigation report that outlines the findings of the fieldwork.

Hazardous Waste/Materials

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.

An Initial Site Assessment (ISA) (September 2014) was completed for the project which included a site reconnaissance and interviews, file search and historical records review to determine potential sources of contamination within the study area for the project. Typical sources of contamination include leaking underground storage tanks, wooden utility poles coated with creosote, possible asbestos containing materials, paint used for striping may contain lead-based

paint, the presence of aerially deposited lead along roadways due to lead from gasoline engine emissions, and herbicides and pesticides in adjacent agricultural areas. The avoidance, minimization, and/or mitigation measures for hazardous materials include several measures for their proper removal.

Air Quality

The Federal Clean Air Act (CAA), as amended, is the primary federal law that governs air quality, while the California CAA is its companion state law. These laws and related regulations by the U.S. Environmental Protection Agency (EPA) and California Air Resources Board (ARB) set the standards for the concentration of pollutants in the air. The information in this section is based on the Air Quality Technical Study (July 2015).

The ARB and South Coast Air Quality Management District maintain a network of air quality monitoring stations to measure and record pollutant concentrations in the local ambient air **(**Figure 3.2.6-2). These measurements identify the existing air quality conditions. Air quality analyses focuses on 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.

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. The State of California has identified the following typical groups who are most likely to be affected by air pollution: children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Sensitive receptors include residences, schools, playgrounds, child care centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes.

The Air Quality Study, which is summarized in this section of the EIR/EIS, examines the degree to which the project alternatives may cause adverse or significant changes to air quality. Short-term construction emissions and long-term effects related to the ongoing operation of the alternatives are discussed in this section. The analysis focuses on air pollution from two perspectives: daily emissions and pollutant concentrations. The proposed project must conform at both levels to be approved.

Most of the construction impacts to air quality are short-term in duration; therefore, they will not result in long-term adverse conditions. Avoidance, minimization, and/or mitigation Measures have therefore been identified for construction emissions.

Noise

Results of the detailed noise analysis, are contained in the Noise Study Report (NSR) (July 2015) for the project. The Noise Study analyzes current and future, as well as construction and operational noise levels to identify impacts to neighboring residents and outdoor uses. Noise abatement in terms of soundwalls is proposed at various locations impacted by traffic noise levels. The *Noise Abatement Decision Report* (NADR) (July 2015) for this project provides details of the proposed soundwalls.

If it is determined that the project will have noise impacts, 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.

Caltrans' *Traffic Noise Analysis Protocol* sets forth the criteria for determining when an abatement measure is feasible and reasonable. Feasibility of noise abatement is basically an engineering concern. Noise abatement measures must reduce the noise level at impacted receptors by at least 5 dB to be considered feasible. Other considerations include topography, access requirements, 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: a minimum 7-dB reduction in the future noise level must be achieved for at least one receptor, cost of noise abatement, and the viewpoints of benefited receptors.

Temporary construction noise impacts would be minimized by building recommended permanent soundwalls during the first phase of construction to protect sensitive receivers from subsequent construction noise, dust, light, glare, and other impacts, to the extent feasible. Additionally, construction noise will be restricted during nighttime hours, and a Noise and Vibration Monitoring and Mitigation Plan will be prepared by a qualified Acoustical Engineer. Equipment must have sound control devices and methods to reduce noise from construction equipment. Temporary noise barriers shall be used and relocated, as needed, to protect sensitive receivers against excessive noise from construction activities involving large equipment and by small items such as compressors, generators, pneumatic tools, and jackhammers. Equipment that causes vibration requires additional measures such as preconstruction building inspections to document the preconstruction condition if equipment is close to a building or residence, and vibration monitoring during vibration intensive activities.

Energy

This section has no corresponding technical study, but follows the CEQA Guidelines, Appendix F, Energy Conservation which requires that the EIR/EIS include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. In the project study area, energy is consumed primarily for residential, commercial, and transportation purposes.

The project alternatives were evaluated to determine if they would result in a demand for energy that would exceed the current supply or cause a substantial increase in the rate of direct (operational) or indirect (construction and maintenance) energy use. The proposed build alternatives would likely reduce the per vehicle energy use relative to the no build alternative. There would also be energy-saving components associated with the proposed project in the form of Transportation System Management improvements. Given these considerations, no avoidance, minimization, and/or mitigation measures are required.

BIOLOGICAL ENVIRONMENT

Natural Communities

This section of the document discusses natural communities of concern and is based on the Natural Environmental Study (NES) (April, 2015). The focus of this section is on biological communities, not individual plant or animal species. This section 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. The NES found that the biological study area for the project is extensively urbanized.

Vegetation Communities

The biological study area is a highly urbanized area, consisting of ruderal and disturbed areas as well as small areas of freshwater marsh, southern willow scrub, mule fat scrub, Riversidean sage scrub (RSS) and non-native grassland.

Most of the mapped riparian and RSS plant communities are outside of the proposed project impact areas. Based on current project designs, there would be no permanent impact to riparian and other wetland habitat associated with the project for either build alternative. The area of permanent impact of RSS habitat was calculated to be 0.23 acre for Alternative 2 and 0.25 acre for Alternative 3.

Habitat connectivity is established when there is a wildlife movement corridor that connects two blocks of native habitat. A wildlife corridor between such habitats functions to allow genetic interchange between populations.

The NES found that most of the study corridor is so heavily urbanized that there is little to no opportunity for regular, regional movement of wildlife across I-10, with the exception that some wildlife species are well adapted to urban environments and will thrive among residential and commercial developments. Most of the species that are commonly observed in urban environments do not have specific movement corridor requirements; instead they use nonspecific movement patterns across urban areas.

Given the high level of existing development within the biological study area and minimal opportunity for regional wildlife movement across I-10, no permanent impacts to wildlife movement are anticipated to result from either of the build alternatives.

Wetlands and Other Waters

Wetlands and other waters in the project area have been identified by the Jurisdictional Delineation Report (Ecorp, Inc., March 2014).

The project has minor permanent impacts to waters of the State and the U.S. As a result, the following regulatory permits must be obtained: U. S. Army Corps of Engineers Section 404 Permit, California Department of Fish & Wildlife Section 1600 Agreement and Santa Ana Regional Water Quality Control Board Section 401 Water Quality Certification.

Measures to reduce and minimize impacts include coordination with the project biologist to delineate all environmentally sensitive areas (ESAs) within the project footprint and immediately surrounding areas and install highly visible barriers (e.g., orange construction fencing) to protect these areas. Impacts to the Santa Ana River must be minimized by maintaining downstream flow conditions and coordinating with the appropriate agencies if dewatering is needed during construction. In addition, temporary impact areas will be hydroseeded and mitigation credits will be purchased.

Plant Species

This section of the document is also based on the NES and discusses all of the other special-status plant species based on surveys conducted during the appropriate blooming period in spring 2013. None of the nine special-status plant species that could potentially be present were observed during the surveys. Therefore, no avoidance, minimization, or mitigation measures are warranted because no special-status plant species occur in the biological service area.

Animal Species

This section discusses animal species with the potential to occur within the biological study area and summarizes the results of research and fieldwork conducted to date and as described in the NES.

Twenty-two animal species of concern were identified as having the potential to be impacted by the project. Of these species, burrowing owl, nesting bird, swallows, and bats may be impacted on a temporary and/or permanent basis.

Avoidance, minimization, and/or mitigation measures include the prohibition to impact nesting birds and installing exclusionary devices on bridges and structures that attract birds outside of

the breeding season. In addition, measures include conducting burrowing owl surveys and avoiding active nests/burrows and surrounding buffer areas during the nesting season and relocating owls pursuant to California Department of Fish & Wildlife protocols.

In addition, all areas of potential bat habitat within and immediately adjacent to the project footprint will be identified and surveyed prior to construction to ensure avoidance of direct mortality to bats roosting in areas subject to effects from construction activities. Temporary bat exclusion devices will be installed under the supervision of the qualified bat biologist prior to construction.

Threatened and Endangered Species

This section discusses threatened and endangered species with the potential to occur within the biological study area as documented in the project's NES.

Based on the findings of the plant surveys, there is currently no suitable habitat or occurrences of any threatened or endangered plant species within the biological study area; therefore, no avoidance, minimization or mitigation measures are required.

There is potential habitat in the biological study area pursuant to the NES for the Delhi Sands flower-loving fly (DSF). DSF surveys are currently underway. If DSF are present, a formal Section 7 consultation with U.S. Fish & Wildlife Service (USFWS) will be required for the project. In addition, impacts to USFWS Critical Habitat for the southwestern willow flycatcher are expected to occur. These birds are not present in the project area but coordination with USFWS will be required due to the Critical Habitat designation on the land.

All adjacent sensitive areas within the project footprint and immediately surrounding areas will be protected with highly visible barriers. In addition, temporarily impacted vegetation communities will be hydroseeded with appropriate native plant species and habitat reassessments will be required for sensitive plants prior to construction.

Invasive Species

This section discusses invasive species with the potential to occur within the biological study area as discussed in the NES.

Implementation of the build alternatives could have the potential to spread invasive species by the entering and exiting of construction equipment contaminated by invasives, the inclusion of invasive species in seed mixtures and mulch, and the improper removal and disposal of invasive species so that seed is spread along the highway. By requiring that invasive species are not used in the revegetation plan, construction equipment is kept free of invasives and an eradication plan is implemented. Should an invasion occur during construction, invasive species impacts would be avoided and minimized.

Chapter 4 – CEQA

The impacts of the build alternatives are summarized in this chapter, including the identification of the level of significance of the potential adverse effects under CEQA. The significance of the potential impacts of the build alternatives under CEQA was assessed based on the CEQA Environmental Checklist and the analyses of project impacts discussed in detail in Chapter 3. This section discusses the impacts of Alternatives 2 and 3 only. For a discussion of the impacts of the No Build Alternative, refer to Chapter 3.

Chapter 5 – Comments and Coordination

This chapter summarizes the results of Caltrans' efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

Chapter 6 – List of Preparers

This Chapter includes all individuals, including consultants, that prepared or helped to prepare the environmental document and supporting technical studies.

Chapter 7 – Distribution List

This Chapter includes a list of agencies and interested parties who are notified of the circulation of the Draft EIR/EIS.