

Appendix F ENVIRONMENTAL COMMITMENTS RECORD

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ENVIRONMENTAL COMMITMENTS RECORD

The purpose of the Environmental Commitments Record (ECR) is to ensure that the California Department of Transportation (Caltrans), as the Lead Agency for the project, meets its environmental commitments for the project by:

- (1) Identifying each environmental commitment made for the project, as shown in the Environmental Impact Report/Environmental Impact Statement (EIR/EIS)
- (2) Specifying how each commitment will be met
- (3) Documenting the completion of each commitment

The ECR provided on the following pages will be used by the project team as a detailed reference throughout all the project phases, both to identify and track commitments and as the most current detailed source of information regarding those commitments and the status of their implementation.

The California Environmental Quality Act (CEQA), Public Resources Code Section 21081, and Sections 15091 and 15097 of the CEQA Guidelines, require that a Mitigation Monitoring and Reporting Program (MMRP) be adopted when the Lead Agency (in this case, Caltrans) certifies an EIR for a project. The purpose of the MMRP is to assign responsibility for the implementation, monitoring, and timing of each mitigation measure that has been identified to avoid or substantially reduce an identified adverse environmental impact of the project. The CEQA Lead Agency is required to ensure compliance with each of the adopted mitigation measures outlined in the MMRP because significant adverse environmental impacts could result from the project if the mitigation measures are not implemented. The ECR provided in this Appendix meets the requirements for an MMRP for the project under CEQA.

Once the project is constructed, a report will be included in the project files at Caltrans reporting the compliance of the project design, construction, and operations with the avoidance, minimization, and mitigation measures in the EIR/EIS

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I-710 Corridor Project EIR/EIS

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
LAND USE					
LU-1	Following approval of the Final EIR/EIS for the Interstate 710 (I-710) Corridor Project and filing of a Notice of Determination with the State Clearinghouse, the California Department of Transportation (Caltrans) shall request that the affected Cities and the County amend their respective General Plans to reflect the final alignment, interchange locations, and modification of land use designations for properties that would be acquired for the project. Caltrans will also initiate amendments to existing freeway agreements with cities where the build alternatives would add or remove access to I-710 or I-405	Caltrans	Following approval of the Final EIR/EIS		
PR-1	If an Interstate 710 (I-710) Corridor Project build alternative is selected, the California Department of Transportation (Caltrans) will continue to identify and incorporate design refinements to avoid or minimize the permanent use of, permanent easements at, and/or temporary use of land from, Cesar E. Chavez Park in the final design of the build alternative.	Caltrans	Following approval of the Final EIR/EIS		
PR-2	Caltrans will conduct all acquisition of property (including permanent easements) from Cesar E. Chavez Park for the I-710 Corridor Project in compliance with the Uniform Relocation Assistance and Real Property Acquisitions Policies Act (Uniform Act) of 1970 (Public Law 91-646, 84 Statute 1894). All applicable relocation services and payments will be provided to the owner of the affected Section 4(f) property.	Caltrans	Prior to relocation of properties		
PR-3	<p>During final design, Caltrans will request that the City of Long Beach (City) define the final boundaries of Cesar E. Chavez Park that will be the basis for the transfer of land from the public street right-of-way for Shoreline Dr. through Cesar E. Chavez Park (currently owned by the City of Long Beach) to within the boundary of the Park. This would be an internal transfer within the City of Long Beach, as the City currently owns the land for both Shoreline Dr. and Cesar E. Chavez Park.</p> <p>After the City has identified the new boundaries of the Park, including the consolidation of the six discontinuous parcels into three larger parcels, it is anticipated that the City will then:</p> <ul style="list-style-type: none"> ▪ Identify park improvements for the new areas added to 	Caltrans	During Final Design		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	<p>the Park, including removal of pavement and other materials from Shoreline Dr., the landscaping of those areas, and the provision of sidewalks and bicycle paths, as appropriate, connecting the consolidated parcels;</p> <ul style="list-style-type: none"> ▪ Develop a landscaping plan and bicycle path plan for the area over the 3rd St. depressed cross section; ▪ Develop a plan for the development of the area within and around the proposed wet basin best management practice (BMP) feature in the northwestern part of the Park as a wetland; ▪ Develop a plan for public access to the northwest part of the Park for passive activities such as wildlife viewing and walking; ▪ Integrate the bioswale (erosion control feature) on the west side of the Park into the overall landscaping/water quality management for that part of the Park; if appropriate, the areas along and including the bioswale may be considered for incorporation in the wetland anticipated at the wet basin BMP feature; and ▪ Develop the plan for replacing the basketball courts in the part of the Park west of Cesar E. Chavez Elementary School. <p>Identification and implementation of the park improvements listed above are included in the I-710 build alternatives as mitigation commitments for the permanent use of land from Cesar E. Chavez Park by the project. It is possible that the City's planned Drake/Chavez Greenbelt Master Plan Project, and/or through other future City improvement projects at Cesar E. Chavez Park, could include some or all of the park improvements identified above. As a result, it is possible that some or all of the improvements listed above could be implemented by the City independently from the implementation of the I-710 Corridor</p>				

I-710 Corridor Project EIR/EIS

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	<p>Project mitigation commitments. To ensure that this mitigation is implemented to address the effects of the I-710 Corridor Project on the Park, the measures listed above are included as part of the environmental commitments for the build alternatives until such time as the City commits to, funds, and implements some or all of those improvements independently of the I-710 Corridor Project.</p>				
PR-4	<p>If the City of Long Beach relinquishes the Shoemaker Bridge structure to Caltrans, Caltrans will coordinate with the City during final design to develop and implement an agreement for a long-term easement for the wet basin and the bioswale located in Cesar E. Chavez Park, including appropriate terms and conditions for access to/from and maintenance of those storm water/water quality control features.</p> <p>In the event the City does not relinquish the Shoemaker Bridge structure to Caltrans, no maintenance and access agreement would be necessary because the City would be responsible for the maintenance of the Shoemaker Bridge structure and the Park, including the wet basin and bioswale in the Park.</p>	Caltrans	During Final Design		
PR-5	<p>Caltrans will coordinate with the City of Long Beach on the replacement of the basketball courts that will be removed by the build alternative in a location accessible to Cesar E. Chavez Elementary School and park visitors. Because the basketball courts are in the area used by the school, the replacement courts will be constructed no later than three months after closure of the existing courts.</p> <p>In the event the City does not proceed with the improvements at Cesar E. Chavez Park (described above in Measure PR-3) that would result in the replacement of the basketball courts no later than three months after the closure of the existing courts, Caltrans will require the construction contractor to construct the replacement courts as part of the overall construction for the I-710 Corridor Project, prior to the closure of the existing courts.</p>	Caltrans	During Construction		
PR-6	Caltrans will require the construction contractor to identify all	Caltrans	Following approval		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	<p>proposed closures of areas within Cesar E. Chavez Park (including streets), no less than 90 days prior to when each closure would begin.</p> <p>No less than 90 days prior to when a closure would begin, Caltrans will require the project construction contractor to provide the following to the City of Long Beach Parks, Recreation, and Marine Department:</p> <ul style="list-style-type: none"> ▪ A map of each proposed closure, clearly showing each park area proposed to be closed temporarily, including identification of any street closures ▪ A plan for providing signing and notifications through other public information outlets to inform the public and park visitors of upcoming closures of areas within the Park ▪ Estimate of the duration of each closure ▪ Identification of alternative vehicle and trail routes to/through and/or around the Park, as appropriate ▪ Identification of park features that would be unavailable to the public during the closure <p>The City of Long Beach will provide written approval of each proposed closure to both the construction contractor and Caltrans no less than 45 days prior to when the closure would begin.</p> <p>Caltrans will require the construction contractor to provide an information telephone number that park visitors can use to contact the construction contractor for more information regarding individual closures. The construction contractor may also provide an information website. The contact number and website information are to be provided at the construction site, at/around each closed area, and on information signs discussing the individual closures. The construction contractor will also be required to provide this information to the City of Long Beach Parks, Recreation, and Marine Department.</p>		<p>of the Final EIR/EIS</p>		

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No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	Caltrans will require the construction contractor to return areas of the Park closed temporarily during construction to their original, or better, conditions after completion of construction, and those temporarily closed areas will be returned to the City.				
PR-7	<p>At the completion of construction using the temporary construction easement (TCE) at Cesar E. Chavez Park, Caltrans will require the construction contractor to return the area occupied by that TCE to a condition as good as or better than prior to its use for the TCE. The required improvements for the rehabilitation of that area will be determined in consultation among Caltrans, the City of Long Beach, and the construction contractor.</p> <p>It is possible the City of Long Beach will be ready to proceed with implementation of park improvements in the area occupied by the TCE at the time the TCE is no longer needed for project construction. Those park improvements would likely be substantially better and of higher quality than what was on the site of the TCE prior to the use of the area for the TCE. Therefore, it is possible the City may request that Caltrans require the construction contractor to make more limited improvements to rehabilitate the site prior to accepting the site from the construction contractor. In that event, the level of effort that the City will require prior to accepting the land used for the TCE from the construction contractor would be negotiated among Caltrans, the City, and the construction contractor.</p>	Caltrans	Prior to relocation of properties		
PR-8	<p>When the temporary detour road in Cesar E. Chavez Park is no longer needed, Caltrans will require the construction contractor to remove the road materials and return the area occupied by the temporary detour road to a condition as good as or better than prior to its use for that road. The required improvements for the rehabilitation of that area will be determined in consultation among Caltrans, the City of Long Beach, and the construction contractor.</p> <p>It is possible the City of Long Beach may wish to keep some or</p>	Caltrans	During Final Design		

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	<p>all of the temporary detour road for use as a road, path, or bicycle lane in that part of the Park, consistent with its overall plan for improvements at Cesar E. Chavez Park. Therefore, it is possible the City may request Caltrans to require the construction contractor to make more limited improvements to rehabilitate the area occupied by the temporary detour road prior to accepting the site from the construction contractor. In that event, the level of effort that the City will require prior to accepting the land used for the temporary detour road from the construction contractor would be negotiated among Caltrans, the City, and the construction contractor.</p>				
PR-9	<p>If Alternative 5A is selected for implementation, Caltrans will continue to identify and incorporate design refinements to minimize the permanent and temporary uses of land from Parque Dos Rios during the final design of Alternative 5A.</p>	Caltrans	During Final Design		
PR-10	<p>Caltrans will conduct all acquisition of property from Parque Dos Rios for Alternatives 5A and 6A/B/C in compliance with the Uniform Act of 1970 (Public Law 91-646, 84 Statute 1894). All applicable relocation services and payments will be provided to the affected property owners.</p>	Caltrans	Prior to property acquisition		
PR-11	<p>If Alternative 5A is selected for implementation, Caltrans will coordinate with the Watershed Conservation Authority (WCA) during final design to develop a plan for recreation facilities and landscaping/native plants on the remaining part of the Parque Dos Rios site, specifically addressing the provision of access to/from the Park via the Los Angeles River Trail, the provision of amenities for park users similar to those in the current site plan, and revegetation of the remaining part of the Park with native plant materials similar to those shown in the current site plan.</p>	Caltrans	During Final Design		
PR-12	<p>Caltrans will identify potential replacement property for the land used from Parque Dos Rios by Alternatives 5A and 6A/B/C, based on continued coordination and consultation with the WCA throughout the environmental process for the project. Specifically, Caltrans will coordinate with the WCA to locate property/properties to replace the land permanently used at Parque Dos Rios (5.97 or fewer acres by Alternative 5A and 8.6</p>	Caltrans	During Final Design		

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No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	<p>acres by Alternatives 6A/B/C). The replacement property/properties must provide land and facilities equal to or greater than the land and facilities used by the selected alternative. Key considerations in identifying replacement property/properties are (1) the acreage of the replacement property/properties compared to the acres used at Parque Dos Rios, (2) whether equivalent or better recreational functionality can be provided on the replacement property/properties, and (3) whether and what connections can be provided to other recreation resources from the replacement property/properties, notably the Los Angeles River Trail and, for Alternative 5A, the remaining part of Parque Dos Rios.</p>				
PR-13	<p>Caltrans will develop conceptual site plans for the potential replacement property/properties, in consultation with the WCA, to ensure that the replacement property/properties and facilities are equivalent to or greater than the land and facilities used at Parque Dos Rios by the selected alternative. Those preliminary plans will identify the following:</p> <ul style="list-style-type: none"> ▪ The recreation amenities and landscaping/native plant materials to be provided on the replacement property/properties ▪ The connections that will be provided between the replacement property/properties and other recreation resources 	Caltrans	During Final Design		
PR-14	<p>Based on agreement with the WCA on the selected replacement property/properties, Caltrans will acquire those selected property/properties.</p>	Caltrans	Prior to property acquisition		
PR-15	<p>Caltrans will coordinate with the WCA on the development of the final site plan for the replacement property/properties and on the selection of a contractor to install the recreation facilities and landscaping/native plants as shown on that final site plan.</p>	Caltrans	During Final Design		
PR-16	<p>On the completion of the installation of the recreation facilities and landscaping/native plants, and on acceptance of those improvements by the WCA, Caltrans will deed the replacement property/properties to the WCA for recreation uses in perpetuity.</p>	Caltrans	Completion of the installation of the recreation facilities		

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			and landscaping/native plants		
PR-17	At the completion of construction activities that use the TCE at Parque Dos Rios, Caltrans will require the construction contractor to return the area occupied by that TCE to a condition as good as or better than prior to its use for the TCE. The required improvements for the rehabilitation of that area will be determined in consultation among Caltrans, the WCA, and the construction contractor and will be coordinated with the plan for the remaining part of the Park, as described in Measure PR-11, above.	Caltrans	Upon completion of construction		
PR-18	During final design, Caltrans will coordinate with the City of Commerce on the development and implementation of an agreement regarding the permanent aerial easement for the overhead freeway structure above the northwestern corner of Bandini Park/Batres Community Center consistent with the requirements of the Uniform Act.	Caltrans	During final design		
PR-19	<p>Caltrans will coordinate with the City of Commerce to identify Caltrans' need for permanent access to the easement area, to access the elevated freeway structure for inspections, repairs, maintenance, and other activities. In addition, Caltrans and the City will coordinate to identify possible park uses that could be developed within the permanent easement area, in the event the City wishes to use some or all of the easement area for future recreation uses. Any such uses would not be allowed to conflict with Caltrans' need to access the elevated freeway structure. The easement agreement described in Measure PR-18 will specify how Caltrans and the City will restrict public access to the easement area during periods when Caltrans is using the easement area (temporary fencing, signing, etc.).</p> <p>The agreement for the easement will specify that Caltrans' access to the easement area will be from the adjacent State highway right-of-way and not through the Park unless approved</p>	Caltrans	During final design		

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PR-20	<p>in writing by the City prior to any access through the Park.</p> <p>Prior to any temporary closures of the Los Angeles River Trail and/or the Rio Hondo Trail, Caltrans will require the construction contractor to meet with the Los Angeles County Department of Public Works (LACDPW) to review the location and need for each closure. Detours for each closure will be developed in consultation with the LACDPW.</p>	Caltrans	Prior to any temporary closures of the Los Angeles River Trail and/or the Rio Hondo Trail		
PR-21	Caltrans will require the construction contractor to develop signs directing trail users to alternative routes in consultation with LACDPW and the local jurisdictions through which detours would be routed. Appropriate directional and informational signage will be provided by the construction contractor prior to each closure and far enough away from the closure so that trail users will not have to backtrack to get to the detour route.	Caltrans	Prior to construction		
PR-22	Caltrans will require the construction contractor to provide a contact number and information that will be provided for trail users to contact the construction contractor regarding upcoming or active trail closures. The construction contractor will also be required to provide that information to the LACDPW and the Public Works Departments in the jurisdictions where the closures/detours are located.	Caltrans	Prior to construction		
PR-23	Caltrans will require the construction contractor to return trail segments closed temporarily during construction to the LACDPW in their original, or better, condition after completion of construction, and those temporarily closed areas will be returned to the original owner (the LACDPW).	Caltrans	Upon completion of construction		

COMMUNITY IMPACTS AND RELOCATION (INCLUDING ENVIRONMENTAL JUSTICE)

C-1	The Uniform Relocation Assistance and Real Property Acquisitions Policies Act (Uniform Act) of 1970 (Public Law 91-646, 84 Stat. 1894) mandates that certain relocation services and payments by the Caltrans be made available to eligible residents, businesses, and nonprofit organizations displaced by its projects (please see Appendix D, Summary of Relocation Benefits, for more detail).The Uniform Act provides for uniform	Caltrans	Prior to relocation of properties		
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No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	<p>and equitable treatment by Federal or Federally assisted programs of persons displaced from their homes, businesses, or farms, and establishes uniform and equitable land acquisition policies. If a build alternative is selected, design refinements to avoid or minimize impacts to existing land uses related to the temporary use and/or permanent acquisition of property will be incorporated in the final design of the selected alternative.</p> <p>Where acquisition and relocation are unavoidable, Caltrans would follow the provisions of the Uniform Act and the 1987 Amendments as implemented by the Uniform Relocation Assistance and Real Property Acquisition Regulations for Federal and Federally Assisted Programs adopted by Caltrans, dated March 2, 1989. An independent appraisal of the affected property will be obtained, and Caltrans will offer the full amount not less than the approved appraisal.</p> <p>While adequate comparable replacement housing appears to exist presently in neighboring cities, new replacement dwellings under Last Resort Housing may be considered for these cities as a method of providing comparable replacement housing to displaced persons who reside in areas where the replacement housing is low.</p>				
C-2	<p>All build alternatives include improvements to the existing Bandini Blvd./Atlantic Ave. interchange, and as a result of widening and realignment of the existing southbound I-710 off-ramp to Bandini Blvd., acquisition and relocation of City of Vernon Fire Station No. 4 will be required. While a potential site for relocation has not been identified at this time, Caltrans will coordinate with the City of Vernon in identifying a new site for relocation within the general vicinity of the existing station so as to maintain the existing response times and service area. In addition, the existing fire station would not be demolished until the new fire station is operational.</p>	Caltrans	Prior to demolishing of the existing fire station		
C-3	<p>Should a tolling alternative (Alternative 6C) be selected as the preferred alternative, Caltrans shall encourage the tolling</p>	Caltrans	Prior to completion		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	authority to implement a tolling system where tolls would either be paid directly by the benefitted cargo owner or provide for discounted tolls or rebates to qualifying low-income drayage drivers.		of construction		

UTILITIES AND EMERGENCY SERVICES

U&ES-1	FIRE SERVICES. During final design, and consistent with the requirements of the Uniform Relocation Act, Caltrans shall negotiate with the City of Vernon to determine a suitable location for the relocation of Fire Station No. 4. The new location shall be in the general vicinity of the existing fire station location, in order to maintain response times with Fire Station No. 4's service area. The existing Fire Station No. 4 shall not be closed until the new fire station has been constructed and is operational.	Caltrans	During final design		
U&ES-2	UTILITIES. Major utility relocations will be subject to preparation of Specific Utility Relocation Plans. The Specific Utility Relocation Plans will include the following: <ul style="list-style-type: none"> ▪ Description of existing facilities, including facility type, capacity, height, and function, in addition to existing easements and maintenance access; ▪ Description of proposed changes/demolition of existing facilities; ▪ Identification of potential conflicts that need to be resolved with the relocation plan, including crossings of flood control, rail, and roadway/freeway infrastructure, existing access tunnels, potential flooding, existing utilities and load distribution, Federal Aviation Administration requirements, drainage and storm water quality requirements, and temporary roads and staged construction; ▪ A description of how the potential conflicts were resolved, including how the proposed relocated aboveground facilities are within the disturbance limits established for 	Caltrans	During final design		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	<p>the project, whether new overhead facilities provide adequate aerial clearances in locations where cranes will be working and near existing and proposed elevated transportation facilities, and whether all aboveground facilities and access points to underground facilities are located outside controlled access lines;</p> <ul style="list-style-type: none"> ▪ A description of the proposed facilities, including easements and maintenance access, and a description of vertical and/or horizontal clearance from other utility and public infrastructure; ▪ A work plan that describes the nature of the construction activity, haul routes, a construction traffic management plan if warranted, hours of construction, construction duration and schedule, planned service interruptions, if any, types of construction activities, and anticipated noise levels; ▪ A summary of existing and planned Utility Team Coordination Meetings that will include all utility companies affected by the project. The meetings should occur during the final design phase (beginning at the 30 percent design stage) and include final design and construction staging. The meeting participants will discuss and plan a workable sequence of utility alterations so that the utility work can be coordinated and, where possible, completed in advance of highway work. Topics to be addressed include sensitive environmental areas, hazardous material sites, erosion controls during construction, and any community events that will be occurring during construction and need to be accommodated. ▪ A determination if a community meeting will be held prior to the issuance of demolition and grading permits. Community meetings will be held for major utility relocations that are (1) within 500 feet of residences or 				

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	<p>schools, and (2) that will require construction duration of 30 days or more. Caltrans shall hold a community preconstruction meeting, in concert with the construction contractor, to provide information regarding the construction schedule and activities. The construction information shall include the location and duration of each construction activity, whether or not and, if applicable, the specific location, days, frequency, and duration of the pile driving that will occur, construction traffic management plans, and any accommodation of community events that will be occurring during the construction period. Notification of this meeting shall be provided to owners and occupants within 500 feet of the utility relocation site.</p> <ul style="list-style-type: none"> ▪ The Specific Utility Relocation Plans will also include other applicable mitigation measures described in Draft EIR/EIS for impacts related to cultural resources, visual resources, hazardous wastes, water quality, and traffic and transportation. 				
TRAFFIC AND TRANSPORTATION/PEDESTRIAN AND BICYCLE FACILITIES					
TR-1	<p>Implementation of the I-710 Corridor Project is forecast to result in adverse impacts to 21 intersections in the project study area. No feasible mitigation measures were identified at four intersections. The levels of service (LOS) and average intersection delay for the remaining impacted study intersections will improve intersection operations back to the projected Alternative 1 (2035 No Build) operating conditions or better with implementation of the recommended mitigation measures. To mitigate the impact of the project on these intersections, this mitigation measure will be implemented by Caltrans in coordination with the local jurisdictions listed below before completion of construction of the I-710 mainline improvements. The improvements listed below apply to the Alternatives 5A and 6A/B/C, unless noted otherwise.</p>	Caltrans	Before completion of construction of the I-710 mainline improvements		

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	<p>CITY OF LONG BEACH.</p> <ul style="list-style-type: none"> ▪ Anaheim St./Santa Fe Ave.: Add one eastbound (EB) and one southbound (SB) left-turn lane (change from single to dual left-turn lanes). ▪ Willow St./Santa Fe Ave.: Add one EB and one northbound (NB) left turn lane (change from single to dual left-turn lanes). Add separate EB and westbound (WB) right-turn lanes. The improvements at this intersection pertain to Alternative 5A only. ▪ Wardlow Rd./Cherry Ave.: Restripe EB and WB through-left lane to through lane only. Add one NB, one EB, and one WB left-turn lane (change from single to dual left-turn lanes). <p>CITY OF CARSON.</p> <ul style="list-style-type: none"> ▪ Del Amo Blvd./Santa Fe Ave.: Add one EB, one NB, and one SB left-turn lane (change from single to dual left-turn lanes). Add separate EB right-turn lane. <p>CITY OF COMPTON.</p> <ul style="list-style-type: none"> ▪ Alondra Blvd./Santa Fe Ave.: Add one EB and one WB shared through-right-turn lane (3rd lane). Add one SB left-turn lane (change from single to dual left-turn lane). ▪ Alondra Blvd./Long Beach Blvd.: Add one EB and one WB shared through-right-turn lane (3rd lane). Add one NB, one SB, one EB, and one WB left-turn lane (change from single to dual left-turn lanes). ▪ Alondra Blvd./Atlantic Ave.: Add one EB and one WB shared through-right-turn lane (3rd lane). Add one SB left-turn lane (change from single to dual left-turn lane). ▪ Alondra Blvd./Garfield Ave.: Add one EB and one WB 				

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	<p>shared through-right-turn lane (3rd lane). Add one WB left-turn lane (change from single to dual left-turn lane).</p> <ul style="list-style-type: none"> ▪ Alondra Blvd./Paramount Blvd.: Add one EB and one WB shared through-right-turn lane (3rd lane). Add one EB left-turn lane (change from single to dual left-turn lane). <p>CITY OF SOUTH GATE.</p> <ul style="list-style-type: none"> ▪ Imperial Hwy./Garfield Ave.: Add one separate WB right-turn lane. The improvement at this intersection pertains to Alternatives 6A and 6B only. <p>CITY OF MAYWOOD.</p> <ul style="list-style-type: none"> • Slauson Ave./Atlantic Blvd.: Add one EB left-turn lane (change from single to dual left-turn lane). The improvement at this intersection pertains to Alternatives 6A, 6B, and 6C only. <p>CITY OF COMMERCE.</p> <ul style="list-style-type: none"> ▪ Slauson Ave./Eastern Ave.: Add one EB left-turn lane (change from single to dual left-turn lane). Add one separate EB right-turn lane. ▪ Slauson Ave./Garfield Ave.: Add one WB left-turn lane (change from single to dual left-turn lane). The improvement at this intersection pertains to Alternatives 6A, 6B, and 6C only. <p>CITY OF COMMERCE/CITY OF BELL GARDENS.</p> <ul style="list-style-type: none"> ▪ Garfield Ave./Gage Ave.: Add one NB, one SB, one EB, and one WB left-turn lane (change from single to dual left-turn lanes). Add separate EB and WB right-turn lanes. <p>COUNTY OF LOS ANGELES (UNINCORPORATED EAST LOS</p>				

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	<p>ANGELES).</p> <ul style="list-style-type: none"> ▪ Beverly Blvd./3rd St.: Add one separate EB right-turn lane. ▪ Eastern Ave./I-10 Ramps: Restripe EB through lane to EB left-turn lane. The improvement at this intersection pertains to Alternatives 6A, 6B, and 6C only. <p>CITY OF VERNON.</p> <ul style="list-style-type: none"> ▪ 38th St./Santa Fe Ave.: Add one SB left-turn lane (change from single to dual left-turn lanes). Add one NB, one SB, and one EB separate right-turn lane. The improvements at this intersection pertain to Alternatives 6A, 6B, and 6C only. 				

VISUAL AND AESTHETICS

<p>VIS-1</p>	<p>I-710 Corridor Master Plan. Prior to preparation of plans, specifications, and estimates (PS&E), Caltrans will prepare a Corridor Master Plan based on the <i>Urban Design and Aesthetic Toolbox Report</i> that will define aesthetic treatment measures that will be incorporated into the final design of the I-710 Corridor Project. The Corridor Master Plan shall be developed in a context-sensitive design process in consultation with the affected local agencies and shall include involvement of local community members as determined by the local agencies. The Caltrans District 7 Landscape Architect shall approve the I-710 Corridor Master Plan.</p> <p>The following design themes will be included in the I-710 Corridor Master Plan:</p> <ul style="list-style-type: none"> ▪ CONVENTIONAL TREATMENTS WITH LOS ANGELES RIVER THEME: Landscaping would be used on easements and also a portion of excess parcels and interchanges. 	<p>Caltrans</p>	<p>During preparation of PS&E</p>		
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No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	<p>Concrete soundwalls and screen walls adjacent to sensitive areas would be mitigated with vines, trees, or bushes. Artwork with symbols would be located along the arterials to highlight unique communities. The theme would consist of Caltrans-approved bridges with design enhancements (including consideration of community input). The Los Angeles River would remain a continuous theme element.</p> <ul style="list-style-type: none"> ▪ Eco/HIGH TECHNOLOGY CONCEPT: This eco-friendly design theme includes green bridges and soundwalls for selected areas, artwork made from recycled materials to portray goods movement and migration, a combination of vines and solar panels on top of concrete block walls, and water retention/green roof on selected locations of the I-710 Corridor. Similar to the Los Angeles River theme, artwork would be located along the corridor to emphasize the distinctiveness of each community. ▪ CONTEMPORARY ART CONCEPT: This theme includes dramatic lighting and walls in a modern style. The elements would include a combination of transparent and concrete walls with vines on selected areas and artistic vertical elements representing the industrial character of much of the I-710 Corridor. Landscaping would be used in portions of excess parcels and interchanges. Similar to the themes above, artwork would be located along the I-710 Corridor to emphasize the distinctiveness of each community. <p>The I-710 Corridor Master Plan will include the following components:</p> <ul style="list-style-type: none"> ▪ Incorporation of applicable procedures and requirements as detailed in the Caltrans publication <i>Highway Design Manual</i>, Section 902.1, Planting Guidelines (September 2006), and any applicable local agency General Plan. 				

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	<ul style="list-style-type: none"> ▪ Identification of areas within the project limits for revegetation, including landscaping for graded areas with plant species consistent with adjacent vegetation and enhancement of new project structures (ramps, sound walls, and retaining walls). Only native or non-invasive non-native species shall be used for landscaping within the project limits. ▪ Planting of trees and shrubs along the I-710 freeway and at interchange locations to enhance the existing visual planting character of the area. ▪ Provision of irrigation design and implementation practices that shall conform to the water conservation measures established in Assembly Bill 325, the Water Conservation in Landscaping Act of 1990 (in effect January 1, 1993). Plants shall also be durable in relation to urban pollutants, such as smog. ▪ Vegetation planted adjacent to 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	<p>Construction Plan. Prior to the start of construction, to address adverse impacts associated with views of construction access and staging areas, Caltrans will require the construction contractor to construct the project in accordance with the Caltrans Standard Construction Specifications, including appropriate measures to address visual impacts during construction.</p>	Caltrans	Prior to the start of construction		

I-710 Corridor Project EIR/EIS

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
VIS-3	<p>Trees. During preparation of PS&E, the Caltrans District 7 Landscape Architect will verify that the design minimizes removal of existing mature trees. If removal of mature trees cannot be avoided, additional landscape improvements will be incorporated into the final design for these areas. The replacement ratio of any trees removed shall be determined by the Caltrans District 7 Landscape Architect.</p>	Caltrans	During preparation of PS&E		
VIS-4	<p>Hardscape. During preparation of PS&E, the Caltrans District 7 Landscape Architect will verify that the project design incorporates attractive walls, medians, and other visually pleasing hardscape in the project design consistent with the I-710 Corridor Master Plan. Permeable paving material will be used to reduce surface water runoff.</p>	Caltrans	During preparation of PS&E		
VIS-5	<p>Sound Walls. During preparation of PS&E, Caltrans will include aesthetic enhancements for soundwalls in the final design. The designs of sound walls require compliance with Caltrans standards for sound attenuation (where walls provide that function), safety requirements, and other pertinent standards. The design of sound walls requires compliance with the Caltrans <i>Highway Design Manual</i> standards, and aesthetic treatments shall be reviewed by the Caltrans District 7 Landscape Architect. The soundwalls shall be developed consistent with the I-710 Corridor Master Plan and include the following features:</p> <ul style="list-style-type: none"> ▪ Attractive, decorative elements including features that provide an expression of the “sense of place” for the I-710 Corridor communities shall be incorporated into wall designs in order to increase the visual quality of the area. ▪ Areas in front of sound walls shall be landscaped, where landscaping can be accommodated within the public right-of-way, including trees, shrubs, and vines (depending upon the space available) to break the visual monotony, soften the appearance of soundwalls, and deter graffiti. 	Caltrans	During preparation of PS&E		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
VIS-6	Retaining Walls. During preparation of PS&E, Caltrans will include aesthetic enhancements for retaining walls in the project design. Attractive, decorative elements, including features that provide an expression of the “sense of place” for the I-710 Corridor communities, shall be incorporated into wall designs in order to increase the visual quality of the area. The use of retaining walls along the I-710 freeway mainline or at interchange off- and on-ramps will require compliance with Caltrans’ design standards for safety.	Caltrans	During preparation of PS&E		
VIS-7	Screen Walls. During preparation of PS&E, Caltrans will include screen walls along the freight corridor in areas where sound walls are not provided and where sensitive viewer groups are exposed to the view of the freight corridor. Aesthetic enhancements for screen walls in the project design will include attractive, decorative elements that provide an expression of the “sense of place” for the I-710 Corridor communities.	Caltrans	During preparation of PS&E		
VIS-8	Lighting. During preparation of PS&E, a lighting plan will be prepared by Caltrans. The lighting fixtures will be designed to minimize glare on adjacent properties and into the night sky. Lighting will be shielded with nonglare hoods and focused within the I-710 Corridor Project right-of-way.	Caltrans	During preparation of PS&E		
VIS-9	Detention Basins and Biowales. During preparation of PS&E, detention basins and bioswales will be addressed as visually integrated elements of the landscape planting. Grading of basins will minimize their visual impact by being designed to blend with the surrounding landscape.	Caltrans	During preparation of PS&E		

WATER QUALITY AND STORM WATER RUNOFF

FP-1	During final project design, and prior to the issuance of any grading permits, Caltrans shall process a Conditional Letter of Map Revision and a Letter of Map Revision, if required, for the floodplain and floodway encroachments through the Los Angeles	Caltrans	During final project design and prior to the issuance of any grading		
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No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	County Flood Control District and Federal Emergency Management Agency (FEMA). This shall include submittal of final detailed applications, certification forms, hydraulic analyses (i.e., Final Los Angeles River Impact Report, including a Location Hydraulic Study), and fee payment to FEMA to obtain a Conditional Letter of Map Revision and a Letter of Map Revision. The portion of the project within the 100-year floodplain shall not be constructed until the Letter of Map Revision is approved by the Los Angeles County Flood Control District and FEMA.		permits		
FP-2	Prior to the completion of final design of Alternatives 6A/B/C, Caltrans shall coordinate with the Los Angeles County Department of Public Works to identify a suitable location for replacement of the I-105 freeway retention basin that will provide equal or greater capacity than the basin impacted by the freight corridor.	Caltrans	Prior to the completion of final design of Alternatives 6A/B/C		

WATER QUALITY AND STORMWATER RUNOFF

WQ-1	Caltrans will follow the procedures outlined in the Caltrans Stormwater Quality Handbooks, Project Planning and Design Guide (March 2007 or subsequent issuance) for implementing design development and treatment Best Management Practices (BMPs) for the project. This will include coordination with the Los Angeles Regional Water Quality Control Board (RWQCB) with respect to feasibility, maintenance, and monitoring of Treatment BMPs as set forth in the Caltrans Statewide Stormwater Management Plan (SWMP, May 2003 or subsequent issuance). Caltrans will also comply with other provisions identified in the National Pollutant Discharge Elimination System (NPDES) Permit, Statewide Stormwater Permit and Waste Discharge Requirements (WDRs) for Caltrans (Order No. 99-06-DWQ, NPDES No. CAS000003), or subsequent permit. Caltrans will incorporate design development and treatment BMPs into the design of the project. The selection of BMPs will be refined during final design. Design development BMPs are anticipated to include preserving existing vegetation wherever feasible, incorporation of concentrated flow conveyance systems with	Caltrans	During final project design		
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No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	velocity-reducing outlet structures, and providing slope protection with vegetation. Treatment BMPs are anticipated to include biofiltration swales, infiltration basins, media filters, detention basins, gross solids removal devices, and/or wet basins. After construction, Caltrans will maintain the treatment BMPs. Operational maintenance BMPs are anticipated to include storm drain cleaning, normal roadway and bridge maintenance, and maintenance of vegetated slopes.				
WQ_2	Prior to the completion of final design of Alternatives 6A/B/C, Caltrans shall coordinate with the Los Angeles County Department of Water and Power to identify a suitable location for replacement of the westerly Dominguez Gap Basin that will provide equal or greater capacity than the basin impacted by the freight corridor.	Caltrans	During final project design		

GEOLOGY, SOILS, SEISMIC, AND TOPOGRAPHY

GEO-1	<p>Prior to completion of final design, Caltrans will prepare a design-level geotechnical report. This report will document soil-related constraints and hazards such as slope instability, settlement liquefaction, or related secondary seismic impacts that may be present. The report shall also include:</p> <ul style="list-style-type: none"> ▪ Evaluation of expansive soils and recommendations regarding construction procedures and/or design criteria to minimize the effect of these soils on development of the project. ▪ Identification of potential liquefiable areas within the project limits and recommendations for mitigation. ▪ Demonstration that the design of all proposed retaining walls is geotechnically suitable for project area soils. <p>The Caltrans Project Engineer will incorporate the measures recommended in the design level geotechnical report in the final design and project specifications. The Caltrans Residents Engineer will require the construction contractor to implement the measures recommended in the design-level geotechnical report as included in the project specifications.</p>	Caltrans	Prior to completion of final design		
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No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
PALEONTOLOGY					
PAL-1	<p>Prior to completion of the final design, Caltrans and a qualified Principal Paleontologist shall prepare a Paleontological Mitigation Plan (PMP) that includes the following measures:</p> <ul style="list-style-type: none"> ▪ A preconstruction field survey shall be conducted in areas identified as having high paleontological sensitivity after vegetation and paving have been removed, followed by salvage of any observed surface paleontological resources prior to the beginning of additional grading. ▪ A qualified paleontologist or representative shall attend the pregrade meeting. At this meeting, the paleontologist will explain the likelihood for encountering paleontological resources, what resources may be discovered, and the methods of recovery that will be employed. ▪ During construction excavation, a qualified vertebrate paleontological monitor shall initially be present on a full-time basis whenever excavation will occur within the sediments that have a high paleontological sensitivity rating and on a spot-check basis for excavation in sediments that have a low sensitivity rating. Monitoring may be reduced to a part-time basis if no resources are being discovered in sediments with a high sensitivity rating (monitoring reductions, when they occur, will be determined by the qualified Principal Paleontologist). With the resident engineer's approval, the monitor shall inspect fresh cuts and/or spoils piles to recover paleontological resources. The monitor shall be empowered to temporarily divert construction equipment away from the immediate area of the discovery. The monitor shall be equipped to rapidly stabilize and remove fossils to avoid prolonged delays to construction schedules. If large mammal fossils or large concentrations of fossils are encountered, 	Caltrans	Prior to completion of the final design		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	<p>Caltrans shall consider using heavy equipment on site to assist in the removal and collection of large materials.</p> <ul style="list-style-type: none"> ▪ Localized concentrations of small (or micro-) vertebrates may be found in all native sediments. Therefore, it is recommended that these sediments occasionally be spot-screened on site through one-eighth- to one-twentieth-inch mesh screens to determine whether microfossils are present during monitoring. If microfossils are encountered, sediment samples (up to three cubic yards, or 6,000 pounds) shall be collected and processed through one-twentieth-inch mesh screens to recover additional fossils. ▪ Recovered specimens shall be prepared to the point of identification and permanent preservation. This includes the sorting of any washed mass samples to recover small invertebrate and vertebrate fossils, the removal of surplus sediment from around larger specimens to reduce the volume of storage for the repository and storage cost, and the addition of approved chemical hardeners/stabilizers to fragile specimens. ▪ Specimens shall be identified to the lowest taxonomic level possible and curated into an institutional repository with retrievable storage. The repository institution usually charge a one-time fee based on volume, so removing surplus sediment is important. The repository institution may be a local museum or university with a curator who can retrieve the specimens on request. Caltrans requires that a draft curation agreement be in place with an approved curation facility prior to the initiation of any paleontological monitoring or mitigation activities. ▪ A Paleontological Mitigation Report (PMR) documenting completion of the PMP for the Lead Agency (Caltrans) shall be prepared and submitted. 				

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
HAZARDOUS WASTE AND MATERIALS					
HW-1	<p>During preparation of Plans, Specifications, and Estimates, if Alternative 5A is selected as the preferred alternative, Caltrans will conduct file reviews for the following on-site properties associated with Alternative 5A:</p> <ul style="list-style-type: none"> ▪ 1234 W. Cowles St., Long Beach (Site Nos. 1048 and 1049) ▪ 1227 W. Cowles St., Long Beach (Site No. 1050) ▪ 3701 Pacific Pl., Long Beach (APN 7140-014-019) (Site No. 2051) ▪ 16312 S. Atlantic Blvd. (APN 7301-002-007) (Site No. 3015) ▪ 5625 Southern Ave., South Gate (Site No. 4104) ▪ Former Cheli Air Force Station (Site Nos. 5031, 6032, 6034, 6037, and 6040) 	Caltrans	During preparation of Plans, Specifications, and Estimates		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
HW-2	<p>During preparation of Plans, Specifications, and Estimates, if Alternatives 6A/B/C are selected as the preferred alternative, Caltrans will conduct file reviews for the following on-site properties associated with Alternatives 6A/B/C:</p> <ul style="list-style-type: none"> ▪ 1326 W. 12th St., Long Beach (Site No. 1033) ▪ 1234 W. Cowles St., Long Beach (Site Nos. 1048 and 1049) ▪ Neill Aircraft Co. (Site Nos. 1050, 1051, 1053, 1055, 1056, 1057, 1058, 1059, 1060, 1061, 1062, 1063, 1064, 1067, 1068, 1402, 1403, 1404, 1405, 1406, 1407, and 1408) ▪ 3701 Pacific Pl., Long Beach (APN 7140-014-019) (Site No. 2051) ▪ 16312 S. Atlantic Blvd., Paramount (APN 7301-002-017) (Site Nos. 3015, 3016, 3017) ▪ 5625 Southern Ave., South Gate (Site No. 4104) ▪ Former Cheli Air Force Station (Site Nos. 5031, 6032, 6034, 6036, 6037, 6040, and 6312) ▪ 2416 Bedessen Ave., City of Commerce (Site Nos. 6024, 6025, 6026, and 6205) ▪ 2500 S. Atlantic Blvd., City of Commerce (Site No. 6042) ▪ Address Unavailable (APN 5243-005-003) ▪ 2414 Connor Ave., City of Commerce (Site No. 6204) ▪ 5553 Bandini Blvd., City of Commerce (Site No. 6312) 	Caltrans	During preparation of Plans, Specifications, and Estimates		
HW-3	During preparation of Plans, Specifications, and Estimates, for any build alternative, Caltrans will conduct additional file review	Caltrans	During preparation of Plans,		

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No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	<p>on the following off-site properties:</p> <ul style="list-style-type: none"> ▪ 970 Chester Pl., Long Beach ▪ 620 San Francisco Ave., Long Beach ▪ 1250 W. 7th St., Long Beach ▪ 929 W. Anaheim St., Long Beach ▪ 718 W. Anaheim St., Long Beach ▪ 702 W. Anaheim St., Long Beach ▪ 1410 Pacific Coast Hwy., Long Beach ▪ 1322 17th St., Long Beach ▪ 960 DeForest Ave., Long Beach ▪ 100 W. Victoria St., Long Beach ▪ 1500 Hughes Wy., Long Beach ▪ 19402 Susana Rd., Compton ▪ 157 E. Alondra Blvd., Compton ▪ 2820 E. Alondra Blvd., Compton ▪ 6020 Long Beach Blvd., Long Beach ▪ 5211 Southern Ave., South Gate ▪ 5321 Firestone Ave., South Gate ▪ 9530 Garfield Ave., South Gate ▪ 5920 Alamo Ave., Maywood ▪ Address Unavailable (APN 6332-002-933) ▪ 4530 E. Pacific Wy., City of Commerce 		Specifications, and Estimates		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	<ul style="list-style-type: none"> ▪ 4000 E. Washington Blvd., City of Commerce ▪ 4400 Washington Blvd., City of Commerce ▪ 1365 S. Eastern Ave., City of Commerce 				
HW-4	Prior to completion of acquisition of any property with existing buildings, Caltrans will conduct a predemolition survey for asbestos-containing material (ACM) and lead-based paint (LBP). If ACMs and/or LBP are detected, a licensed contractor will remove the ACMs and/or LBP materials prior to demolition.	Caltrans	Prior to completion of acquisition of any property with existing buildings		
HW-5	During preparation of Plans, Specifications, and Estimates, Caltrans will inspect utility pole-mounted transformers within the project area for leaks. Leaking transformers will be considered a polychlorinated biphenyl (PCB) hazard unless tested and will be handled accordingly.	Caltrans	During preparation of Plans, Specifications, and Estimates		
HW-6	Prior to soil excavation, Caltrans will conduct a soil investigation for aurally deposited lead (ADL) and other contaminants of concern. The analytical results of the soil sampling will assess the potential presence of hazardous contaminants and determine the appropriate handling of the soil and disposal of surplus materials. The soil investigation will consist of an ADL investigation (along Interstate 710 [I-710]) and investigation for other contaminants of concern due to impacts from adjoining properties.	Caltrans	Prior to soil excavation		
HW-7	During preparation of Plans, Specifications, and Estimates, Caltrans will conduct a groundwater evaluation to assess disposal alternatives for groundwater encountered during construction and to comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) permitting process.	Caltrans	During preparation of Plans, Specifications, and Estimates		
HW-8	Prior to completion of right-of-way acquisition, an updated Initial Site Assessment (ISA) and preliminary site investigation (PSI)	Caltrans	Prior to completion of right-of-way		

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No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	<p>will be conducted by Caltrans. Based on the results of the updated ISA, preliminary site investigations (PSIs) will be conducted for properties identified as having the potential to create an environmental concern to the Interstate 710 (I-710) Corridor Project. A parcel-by-parcel investigation will be performed for these properties. Caltrans will ensure that individual properties will not be acquired for the project before complete testing is done and case closure is achieved to ensure that each property acquired is free of hazardous wastes.</p>		acquisition		
HW-9	<p>During preparation of Plans, Specifications, and Estimates, soils within and immediately adjacent to existing railroads that will be disturbed as part of the railroad relocation under the I-710 Corridor Project, will be tested by Caltrans for contaminants commonly found in association with railroads. The soil investigation will include, but not be limited to the following constituents, total petroleum hydrocarbons, lead, and arsenic.</p>	Caltrans	During preparation of Plans, Specifications, and Estimates		
HW-10	<p>During the Plans, Specifications, and Estimates phase, Caltrans shall ensure that the construction contractor prepares a Construction Contingency Plan (CCP) in accordance with Caltrans' Unknown Hazards Procedures for Construction. The CCP will include provisions for emergency response in the event that unidentified underground storage tanks (USTs), hazardous materials, petroleum hydrocarbons, or hazardous or solid wastes are discovered during construction activities. The CCP will address UST decommissioning, field screening, contaminant materials testing methods, mitigation and contaminant management requirements, and health and safety requirements for construction workers.</p> <p>Caltrans will require the construction contractor to implement the CCP during all construction activities.</p> <p>During construction, Caltrans will require the construction contractor to cease work immediately if an unexpected release of hazardous substances is found in reportable quantities. If an</p>	Caltrans	During preparation of Plans, Specifications, and Estimates		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	unexpected release of hazardous substances is found in reportable quantities, Caltrans will require the construction contractor to notify the National Response Center by calling 1-800-424-8802. Caltrans will require the construction contractor to perform cleanup of unexpected releases under the appropriate Federal, State, or local agency oversight.				
HW-11	<p>During final design and prior to any ground-disturbance, Caltrans will require the construction contractor to test all wooden utility poles, railroad ties, and other treated wood waste material that will be removed and disposed of as part of the project for wood treatments/preservatives. Caltrans will also require the construction contractor to test soils surrounding railroad ties for wood treatments/preservatives.</p> <p>Prior to and during construction, Caltrans will require the construction contractor to properly dispose of all treated wood waste, Alternative Management Standards for Wood Treated Waste in Section 67386.6(a)(2)(B) 3 of the California Code of Regulations (CCR). In addition, Caltrans will require the construction contractor to require that any personnel who come in contact with treated wood waste or contaminated soils to follow all applicable requirements under Section 67386.6(a)(2)(B) 3 of the CCR and be trained in the proper identification, disposal, and safe handling of treated wood waste and contaminated soils.</p>	Caltrans	<p>During final design prior to any ground disturbance</p> <p>During construction</p>		

AIR QUALITY

AQ-1	Within two years of the approval of a Record of Decision for an I-710 Corridor Project build alternative, the California Department of Transportation (Caltrans) shall make a funding contribution to the South Coast Air Quality Management District (SCAQMD) to provide funding for the design and construction of four new air quality monitoring stations within the I-710 Corridor. The new stations will provide for monitoring meteorology (temperature, relative humidity, pressure, wind speed and direction, and rain) and monitoring the following pollutants: ozone (O ₃), nitrogen	Caltrans	Within two years of approval of ROD		
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No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	oxide (NO), nitrogen dioxide (NO ₂), particulate matter less than 2.5 microns in diameter (PM _{2.5}), particulate matter less than 10 microns in diameter (PM ₁₀), and carbon monoxide (CO).				

NOISE

Based on the studies completed to date, Caltrans intends to incorporate noise abatement in the form of barriers shown in Table 3.14-5, depending on the selected alternative. The following presents the preliminary noise abatement decision pertaining to each of the evaluated soundwalls under Alternatives 5 and 6A. Some of these barriers are required because they would replace existing sound walls that would be removed by the proposed project. The final decision on noise abatement will be made following the completion of public review of the Draft EIR/EIS and the public involvement processes.

NATURAL COMMUNITIES

The majority of existing estuarine and riparian/riverine habitats fall under the regulatory jurisdiction of USACE pursuant to Section 10 of the Rivers and Harbors Act of 1899 (RHA) and Section 404 of the Clean Water Act (CWA). Most of the impacts to USACE jurisdictional waters as a result of the I-710 Corridor Project would occur above the high tide line. Therefore, the impacts are anticipated to be primarily to waters under the jurisdiction of Section 404. Compensatory mitigation for estuarine and riparian/riverine habitats would be required to comply with Section 404 of the CWA. Typically, estuarine and riparian/riverine habitats subject to USACE jurisdiction is mitigated at a minimum mitigation-to-effect ratio of 2:1 for permanent effects and 1:1 for temporary effects, which is consistent with the USACE policy of no net loss of estuarine and riparian/riverine habitats (e.g., wetlands). Compensatory mitigation may be in the form of habitat restoration and/or enhancement in on- or off-site areas where similar estuarine habitat exists.

Final details for compensatory mitigation would be evaluated through coordination Caltrans and the resource agencies. Compensatory mitigation may be in the form of habitat restoration and/or enhancement in on- or off-site areas where similar riparian habitat exists, or a monetary contribution toward an in-lieu fee program, acceptable by the regulatory agencies. Areas within or directly adjacent to the BSA may offer mitigation options. Online research (The River Project 2009; Los Angeles County 2009) and communication with agency representatives (L. Torres [December 8, 2009] [Rivers and Mountains Conservancy], J. Casanova [December 4, 2009] [Los Angeles River and San Gabriel Rivers Watershed Council], and D. Rivera [December 30, 2009] [Los Angeles County Department of Public Works], personal communication) revealed that a number of restoration opportunities, some still in progress, exist in the vicinity. Portions of the completed Dominguez Gap Wetlands restoration area lie within the BSA. Among other options, compensation for I-710 Corridor Project effects to tidal waters may be provided by providing additional funding for the Golden Shore Marine Preserve (Long Beach Natural Areas 2009). The Compton Creek Improvement Project is in progress and may provide a compensatory mitigation opportunity for riparian scrub and/or freshwater emergent marsh.

NC-1 At minimum, the HMMP shall comply with all terms and conditions set forth in the permits and opinions issued by the resource agencies and shall include the following provisions:

- Permanent effects to native habitat shall be replaced with in-kind habitat on or off site at a minimum 2:1 mitigation-to-effect ratio. Temporary effects to native vegetation shall be replaced at a minimum 1:1 ratio with in-kind habitat restored in place within the BSA. If off-site restoration is conducted, it shall be done within the same watershed as the I-710 Corridor Project.
- The HMMP shall identify a success criterion of at least 80 percent cover of native riparian vegetation or composition structure similar to existing adjacent high-quality riparian vegetation.
- Further criteria specified in the HMMP shall include an establishment period for the replacement habitat, regular trash removal, and regular maintenance

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
<p>and monitoring activities to ensure the success of the mitigation plan. After construction, annual summary reports of the biological monitoring shall be provided to the USACE, the CDFG, and USFWS documenting the monitoring effort. The duration of the monitoring and reporting shall be established by resource agency permit conditions.</p>					

ANIMAL SPECIES

<p>AS-1</p>	<p>New and renovated bridges will be designed to ensure the safety of birds flying up and down the Los Angeles River. Suitable fencing or other structural features on the sides of bridges would direct flying birds up and out of the way of traffic, as well as restrict litter and debris from falling into the Los Angeles River during regular operation.</p>	<p>Caltrans</p>	<p>During final design</p>		
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INVASIVE SPECIES

<p>IS-1</p>	<p>A weed abatement program would be developed to minimize the importation of nonnative plant material during and after construction. Eradication strategies would be employed should an increase in invasive plants occur.</p> <p>At a minimum, this program would include:</p> <ul style="list-style-type: none"> ▪ After construction, affected areas adjacent to native vegetation would be revegetated with plant species approved by the Caltrans District Biologist that are native to the vicinity. ▪ After construction, all revegetated areas would avoid the use of species listed in California Invasive Plant Council's (Cal-IPC) California Invasive Plant Inventory that have a high or moderate rating. ▪ Eradication procedures (e.g., spraying and/or hand weeding) would be outlined should an infestation occur; the use of herbicides would be prohibited within and adjacent to native vegetation, except as specifically authorized and monitored by the Caltrans District Biologist. 	<p>Caltrans</p>	<p>Prior to, during, and after construction</p>		
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CONSTRUCTION

I-710 Corridor Project EIR/EIS

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
CON-1	During construction, Caltrans will require vehicular and the construction contractor to maintain vehicular and pedestrian access to businesses within the construction area throughout the construction period. If existing access points are disrupted, alternative access will be provided. Appropriate signage and temporary sidewalks will be provided as needed throughout construction, and the construction contractor will provide and maintain appropriate signage to direct both pedestrian and vehicular traffic to businesses via alternate routes. Disabled access will also be maintained during construction.	Caltrans	During construction		
CON-2	<p>During construction, Caltrans will require establishment of one or more public information field office(s) near the construction site(s). The field office(s) will serve the following purposes:</p> <ul style="list-style-type: none"> ▪ Provide the community and businesses with a physical location where information pertaining to construction can be obtained in both English and Spanish ▪ Enable Caltrans staff to facilitate communication between Caltrans staff and residents and business operators ▪ Notify property owners, residences, and businesses of major construction activities (e.g., utility relocation/disruption, rerouting of delivery trucks) at least 14 days prior to the disruption ▪ Respond to phone inquiries ▪ Coordinate business outreach programs <p>The I-710 Corridor Project build alternatives also have the potential to result in temporary impacts to access to parks and recreation facilities during construction. A measure (CON-6) is included in Section 3.24.4.5 to further reduce potential impacts to access to parks as a result of construction.</p>	Caltrans	During construction		
CON-3	Prior to and during construction, Caltrans and the construction contractor will coordinate all temporary ramp closures and detour	Caltrans	Prior to and during		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	plans with fire, emergency medical, and law enforcement providers to minimize temporary delays in emergency response times as part of the Traffic Management Plan (TMP), including the identification of alternative routes and routes across the construction areas for emergency vehicles, developed in coordination with the affected agencies.		construction		
CON-4	<p>Major utility relocations will be subject to preparation of Specific Utility Relocation Plans. For temporary impacts, the Specific Utility Relocation Plans will include (Specific Utility Relocation Plan elements for permanent impacts are included in Section 3.4, Utilities and Emergency Services):</p> <ul style="list-style-type: none"> ▪ Description of proposed changes/demolition of existing facilities. ▪ Identification of potential conflicts that need to be resolved with the relocation plan, including temporary roads and staged construction. ▪ A work plan that describes the nature of the construction activity, haul routes, a construction traffic management plan if warranted, hours of construction, construction duration and schedule, planned service interruptions, if any, types of construction activities, and anticipated noise level. ▪ A summary of existing and planned Utility Team Coordination Meetings that will include all utility companies affected by the project. The meetings will occur during the final design phase and include final design and construction staging. The meeting participants will discuss and plan a workable sequence of utility alterations so that the utility work can be coordinated and, where possible, completed in advance of highway work. Topics to be addressed include sensitive environmental areas, hazardous material sites, erosion controls during construction, and any 	Caltrans	During final design		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	<p>community events that will be occurring during construction and need to be accommodated.</p> <p>A determination if a community meeting will be held prior to the issuance of demolition and grading permits. Community meetings will be held for major utility relocations that are (1) within 500 feet of residences or schools, and (2) that will require construction duration of 30 days or more. Caltrans will hold a community pre-construction meeting, in concert with the construction contractor, to provide information regarding the construction schedule and activities. The construction information will include the location and duration of each construction activity, whether or not and, if applicable, the specific location, days, frequency, and duration of the pile driving that will occur, construction traffic management plans, and any accommodation of community events that will be occurring during the construction period. Notification of this meeting will be provided to owners and occupants within 500 feet of the utility relocation site.</p>				
CON-5	<p>Prior to grading activities, Caltrans will require the construction contractor to notify Underground Service Alert (USA) at least two days prior to excavation by calling 811 to require that all utility owners within the project disturbance limits identify the locations of underground transmission lines and facilities.</p>	Caltrans	Prior to grading activities		
CON-6	<p>Traffic Management Plan. Prior to construction, Caltrans will prepare a TMP to address short-term traffic impacts during construction of the I-710 Corridor Project. The objectives of the TMP are to:</p> <ul style="list-style-type: none"> ▪ Maintain traffic safety during construction; ▪ Maintain an acceptable level of traffic flow throughout the transportation system during construction; ▪ Minimize traffic delays and facilitate reduction in the 	Caltrans	Prior to construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	<p>overall duration of construction activities;</p> <ul style="list-style-type: none"> ▪ Minimize detours and impacts to pedestrians and bicyclists; and ▪ Foster public awareness of the project and construction-related impacts. <p>The TMP will include the elements recommended in the Caltrans TMP Guidelines (June 2009) including:</p> <ul style="list-style-type: none"> ▪ Public information; ▪ Traveler Information Strategies; ▪ Incident Management; ▪ Construction Strategies; ▪ Demand Management; and ▪ Alternate Route Strategies 				
CON-7	<p>Construction Plan. Prior to the start of construction, to address adverse impacts associated with views of construction access and staging areas, Caltrans will require the construction contractor to construct the project in accordance with the Caltrans Standard Construction Specifications, including appropriate measures to address visual impacts during construction.</p>	Caltrans	Prior to the start of construction		
CON-8	<p>If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.</p>	Caltrans	During construction		
CON-9	<p>If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities will cease in any area or nearby area suspected to overlie remains, and the County Coroner will be contacted. Pursuant to Public</p>	Caltrans	If human remains are discovered		

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	Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission, which will then notify the Most Likely Descendant (MLD). At that time, the District 7 Environmental Branch Chief or the District 7 Native American Coordinator will be contacted so that he/she 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.				
CON-10	Caltrans will require the construction contractor to comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002) and any subsequent permit as they relate to construction activities for the project. This will include submission of the Permit Registration Documents, including a Notice of Intent (NOI), risk assessment, site map, SWPPP, annual fee, and signed certification statement to the SWRCB at least 14 days prior to the start of construction. The SWPPP will meet the requirements of the Construction General Permit and will identify pollutant sources associated with construction activities; identify non-stormwater discharges; develop a water quality monitoring and sampling plan; and identify, implement, and maintain BMPs to reduce or eliminate pollutants associated with the construction site. The BMPs identified in the SWPPP will be implemented during project construction. A Notice of Termination (NOT) will be submitted to the SWRCB upon completion of construction and the stabilization of the site.	Caltrans	At least 14 days prior to and during construction		
CON-11	Caltrans will require the construction contractor to comply with the provisions of the Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties, Order No. R4-2008-0032,	Caltrans	At least 45 days prior to the start of non-stormwater dewatering discharge and a		

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	National Pollutant Discharge Elimination System (NPDES) No. CAG994004, as they relate to discharge of non-stormwater dewatering wastes for the project, including monitoring and reporting requirements. This will include submitting to the Los Angeles RWQCB a NOI at least 45 days prior to the start of non-stormwater dewatering discharge and a Notice of Termination or Transfer (NOTT) upon completion of dewatering discharge.		Notice of Termination or Transfer (NOTT) upon completion of dewatering discharge		
CON-12	Caltrans will prepare a quality assurance/quality control plan that will be maintained during construction. The plan will include observing, monitoring, and testing by a geotechnical engineer and/or geologist during construction to confirm that geotechnical/geologic recommendations are fulfilled, or if different site conditions are encountered, appropriate changes are made to accommodate such issues. The geotechnical engineer will prepare weekly reports while grading excavation and construction activities are underway.	Caltrans	Prior to and during construction		
CON-13	Prior to and during construction, Caltrans will test and remove yellow traffic stripes and pavement marking material in accordance with Standard Special Provision (SSP) XE 15-300.	Caltrans	Prior to and during construction		
CON-14	If suspect hazardous waste or underground tanks are encountered during construction, the contractor will stop work and follow the procedures outlined in Appendix E, Caltrans Unknown Hazards Procedures for Construction.	Caltrans	During construction		
CON-15	During preparation of Plans, Specifications, and Estimates, Caltrans will conduct a groundwater evaluation to assess disposal alternatives for groundwater encountered during construction and to comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) permitting process.	Caltrans	During preparation of Plans, Specifications, and Estimates		
CON-16	The contractor will comply with Caltrans Standard Specifications,	Caltrans	During		

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	<p>Sections 7-1.01F and 10.</p> <ul style="list-style-type: none"> ▪ Section 7, "Legal Regulations and Responsibility," addresses the contractor's responsibility on many items of concern, such as air pollution; protection of lakes, streams, reservoirs, and other water bodies; use of pesticides; safety; sanitation; convenience of the public; and damage or injury to any person or property as a result of any construction operation. Section 7-1.01F specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances. ▪ Section 10 is directed at controlling dust. If dust palliative materials other than water are to be used, material specifications are contained in Section 18. 		construction		
CON-17	The construction contractor will apply water or dust-palliative per Caltrans Standard Specifications Section 18 or applicable air district regulations, whichever are more stringent for air quality, to the site and equipment as frequently as necessary to control fugitive dust emissions. SCAQMD Rule 403 will also be followed.	Caltrans	During construction		
CON-18	The construction contractor will spread soil binder on any unpaved roads used during construction and all project construction parking areas, consistent with storm water pollution control requirements (Caltrans Standard Specifications Section 7-1.01 G).	Caltrans	During construction		
CON-19	The construction contractor will wash trucks as they leave the highway right-of-way as necessary to control fugitive dust emissions and trucks tracking dust off the project site, consistent with storm water pollution control requirements (Caltrans Standard Specifications Section 7-1.01 G).	Caltrans	During construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
CON-20	The construction contractor will properly tune and maintain construction equipment and vehicles. The construction contractor will use low-sulfur fuel in all construction equipment as provided in California Code of Regulations Title 17, Section 93114.	Caltrans	During construction		
CON-21	The construction contractor will develop and implement a dust control plan documenting sprinkling, temporary paving, speed limits, and expedited revegetation of disturbed slopes as needed to minimize construction fugitive dust impacts to adjacent land uses.	Caltrans	During construction		
CON-22	The construction contractor will locate equipment and materials storage sites as far away from adjacent residential and park uses as practical. The construction contractor will keep construction areas clean and orderly.	Caltrans	During construction		
CON-23	The construction contractor will establish Environmentally Sensitive Areas (ESAs) for sensitive air receptors within which construction activities involving extended idling of diesel equipment will be prohibited to the extent feasible.	Caltrans	During construction		
CON-24	The construction contractor will use track-out reduction measures such as gravel pads at project access points to minimize dust and mud deposits on off-site roads used by construction traffic, consistent with storm water pollution control requirements (Caltrans Standard Specifications Section 7-1.01 G).	Caltrans	During construction		
CON-25	The construction contractor will cover all loads of soils and wet materials prior to transport, or provide adequate freeboard (space from the top of the material to the top of the truck) to reduce particulate matter less than 10 microns in size (PM ₁₀) and the deposition of particulate matter during transportation.	Caltrans	During construction		

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CON-26	The construction contractor will remove dust and mud deposited on paved public roads due to construction activity and traffic to decrease particulate matter, consistent with storm water pollution control requirements (Caltrans Standard Specifications Section 7-1.01 G).	Caltrans	During construction		
CON-27	The construction contractor will route and schedule construction traffic to avoid peak travel times as much as possible and to reduce congestion and related air quality impacts caused by idling vehicles along local roads.	Caltrans	During construction		
CON-28	The construction contractor will install mulch or plant vegetation as soon as practical after grading to reduce windblown particulates in the area.	Caltrans	During construction		
CON-29	During clearing, grading, earthmoving, or excavation operations, excessive fugitive dust emissions will be controlled by regular watering or other dust preventive measures using the following procedures, as specified in the SCAQMD Rule 403. All material excavated or graded will be sufficiently watered to prevent excessive amounts of dust. Watering will occur at least twice daily with complete coverage, preferably in the late morning and after work is done for the day. All material transported on site or off site will be either sufficiently watered or securely covered to prevent excessive amounts of dust. The area disturbed by clearing, grading, earth moving, or excavation operations will be minimized so as to prevent excessive amounts of dust. These control techniques will be indicated in project specifications. Visible dust beyond the property line emanating from the project will be prevented to the maximum extent feasible.	Caltrans	During clearing, grading, earthmoving, or excavation operations		
CON-30	Equipment noise control will be applied to revising old equipment and designing new equipment to meet specified noise levels.	Caltrans	During construction		
CON-31	In-use noise control where existing equipment is not permitted to produce noise levels in excess of specified limits.	Caltrans	During		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
			construction		
CON-32	Site restriction is an attempt to achieve noise reduction through modifying the time, place, or method of operation of a particular source	Caltrans	During construction		
CON-33	Personal training of operators and supervisors is needed to become more aware of the construction site noise problems.	Caltrans	During construction		
CON-34	<p>Equipment noise control is needed to reduce the noise emissions from construction sites by mandating specified noise levels for the design of new equipment and updating old equipment with new noise control devices and techniques, as described below:</p> <ul style="list-style-type: none"> ▪ Mufflers are very effective devices, which reduce the noise emanating from the intake or exhaust of an engine, compressor, or pump. The fitting of effective mufflers on all new equipment and the retrofitting of mufflers on existing equipment is necessary to yield an immediate noise reduction at all types of road construction sites. ▪ Sealed and lubricated tracks for crawler mounted equipment will lessen the sound radiated from the track assembly resulting from metal-to-soil and metal-to-metal contact. Contractors, site engineers, and inspectors will ensure that the tracks are kept in excellent condition by periodic maintenance and lubrication. ▪ Lowering exhaust pipe exit heights closer to the ground can result in an off-site noise reduction. Barriers are more effective in attenuating noise when the noise source is closer to ground level. ▪ General noise control technology can have substantially quieter construction equipment when manufacturers 	Caltrans	During construction		

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	<p>apply state-of-the-art technology to new equipment or repair old equipment to maintain original equipment noise levels.</p>				
<p>CON-35</p>	<p>In-use site noise control is necessary to prevent existing equipment from producing noise levels in excess of specified limits. Any equipment that produces noise levels less than the specified limits will not be affected. However, those exceeding the limit will be required to meet compliance by repair, retrofit, or replacement. New equipment with the latest noise-sensitive components and noise control devices are generally quieter than older equipment, if properly maintained and inspected regularly. It will be repaired or replaced if necessary to maintain the in-use noise limit. All equipment applying the in-use noise limit will achieve an immediate noise reduction if properly enforced.</p>	<p>Caltrans</p>	<p>During construction</p>		
<p>CON-36</p>	<p>Site restrictions will be applied to achieve noise reduction through different methods, resulting in an immediate reduction of noise emitted to the community without requiring any modification to the source noise emissions. The methods include shielding with barriers for equipment and site, truck rerouting and traffic control, time scheduling, and equipment relocation. The effectiveness of each method depends on the type of construction involved and the site characteristics.</p> <ul style="list-style-type: none"> ▪ Shielding with barriers will be implemented at an early stage of a project to reduce construction equipment noise. The placement of barriers must be carefully considered to reduce limitation of site access. Barriers may be natural or man-made, such as excess land fill used as a temporary berm strategically placed to act as a barrier. ▪ Efficient rerouting of trucks and control of traffic activity on construction sites will reduce noise due to vehicle idling, gear shifting, and accelerating under load. Planning proper traffic control will result in efficient 	<p>Caltrans</p>	<p>During construction</p>		

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	<p>workflow and reduce noise levels. In addition, rerouting trucks does not reduce noise levels but transfers noise to other areas that are less sensitive to noise.</p> <ul style="list-style-type: none"> ▪ Time scheduling of activities will be implemented to minimize noise impacts on exposed areas. Local activity patterns and surrounding land uses must be considered in establishing site curfews. However, limiting working hours can decrease productivity. Sequencing the use of equipment with relatively low noise levels versus equipment with relatively high noise levels during noise-sensitive periods is an effective noise control measure. ▪ Equipment location will be as far from noise-sensitive land use areas as possible. The contractor will substitute quieter equipment or use quieter construction processes at or near noise-sensitive areas. 				
CON-37	<p>Educating contractors and their employees to be sensitive to noise impact problems and noise control methods. This may be one of the most cost-effective ways to help operators and supervisors become more aware of the construction site noise problem and to implement the various methods of improving the conditions. A training program for equipment operators is recommended to instruct them in methods of operating their equipment to minimize environmental noise. Many training programs are presently given on the subject of job safety. This can be extended to include the impacts due to noise and methods of abatement.</p>	Caltrans	During construction		
CON-38	<p>A pre- and post-construction survey will be conducted for residential structures located within 100 ft of pile driving locations to determine whether any new cracks or other damage have occurred. The proposed project will be responsible for the cost of damage to structures resulting from project construction.</p>	Caltrans	Pre- and post-construction		

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CON-39	Alternatives to pile driving such as pre-drilling and cast-in-place will be required to limit vibration generation to a small amount, which will be considered negligible.	Caltrans	During construction		
CON-40	Prior to clearing or construction, highly visible barriers (such as orange construction fencing) will be installed around sensitive habitats adjacent to the project footprint under the guidance of a biological monitor 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, no construction activities, materials, or equipment will be allowed 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 the ESAs. Silt fence barriers will be installed at ESA boundaries to prevent accidental deposition of fill material in areas where the ESA is immediately adjacent to planned grading activities.	Caltrans	Prior to clearing or construction		
CON-41	A biologist will monitor construction within the vicinity of estuarine and riparian/riverine habitats for the duration of the project to ensure that vegetation removal, BMPs, ESAs, and all avoidance and minimization measures are properly implemented.	Caltrans	During construction within the vicinity of estuarine and riparian/riverine habitats		
CON-42	A biological monitor will be present during all vegetation clearing to flush any wildlife species present prior to construction.	Caltrans	During any vegetation clearing		
CON-43	An employee education program for all construction personnel will be developed and implemented by the biological monitor prior to construction. At a minimum, the program will include the following topics: (1) responsibilities of the biological monitor; (2) delineation and installation of visible barriers of ESAs; (3) limitations on all movement of those employed on site, including	Caltrans	Prior to construction		

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	<p>ingress and egress of equipment and personnel, to designated construction zones (personnel shall not be allowed access to ESAs); (4) on-site pet prohibitions; (5) use of trash containers for disposal and removal of trash; and (6) project features designed to reduce the impacts to listed species and habitat and promote continued successful occupation of adjacent habitat areas.</p>				
<p>CON-44</p>	<p>Prior to construction, pre-construction surveys for <i>Caulerpa taxifolia</i> (a nonnative seaweed) will be conducted by a qualified biologist to ensure that the Biological Study Area (BSA) is not infested with this nonnative invasive seaweed. If present, containment and proper eradication of any individuals of this species prior to construction will be required.</p>	<p>Caltrans</p>	<p>Prior to construction</p>		
<p>CON-45</p>	<p>The use of rodenticides, herbicides, insecticides, or other chemicals that could potentially harm listed species shall be prohibited in and adjacent to sensitive habitats. Use of rodenticides, herbicides, insecticides, or other chemicals in other areas will be monitored by a qualified biologist to ensure no accidental effects in sensitive habitats.</p>	<p>Caltrans</p>	<p>During construction</p>		
<p>CON-46</p>	<p>A construction SWPPP and soil erosion and sedimentation plan will be developed by the construction contractor to minimize erosion and identify specific pollution prevention measures that will eliminate or control potential point and nonpoint pollution sources on site during and following the project's construction phase. The SWPPP will identify specific BMPs to be implemented during project construction so as not to cause or contribute to an exceedance of any water quality standard. A Storm Preparation and Evacuation Plan shall be prepared as part of the SWPPP prepared for the project. The plan shall include a requirement that no work shall occur within drainages during storm events. In addition, the SWPPP will contain provisions for changes to the plan such as alternative mechanisms, if necessary, during project design and/or construction to achieve the stated goals and performance standards.</p>	<p>Caltrans</p>	<p>Prior to construction</p>		

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CON-47	A Fisheries Management Plan is expected to be required through informal consultation with the NMFS. If required, a Fisheries Management Plan will be developed and submitted to the NMFS for approval prior to completion of the final design. The Fisheries Management Plan will also be submitted to the USACE, the RWQCB, and the CDFG, as necessary, for information and permit condition compliance. The Fisheries Management Plan will contain provisions for changes to the plan such as alternative mechanisms, if necessary, during project design and/or construction to achieve the stated goals and performance standards.	Caltrans	Prior to completion of the final design		
CON-48	All avoidance, minimization, and mitigation measures identified in the Habitat Mitigation Monitoring Plan (HMMP), the Fisheries Management Plan, and the SWPPP will be followed.	Caltrans	During construction		
CON-49	BMPs will be included in the Fisheries Management Plan and/or SWPP to limit the resuspension of sediment and to manage resuspended sediment during construction in and adjacent to the Los Angeles River, particularly to limit the spread of	Caltrans	During construction in and adjacent to the Los		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	contaminated sediment. These BMPs may include cofferdams, silt or turbidity curtains, or other watertight barricades surrounding the work areas that will contain resuspended sediment in the work area until it settles.		Angeles River		
CON-50	All equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities will occur in developed or designated nonsensitive upland habitat areas. The designated upland areas will be located in such a manner as to prevent runoff from any spills from entering sensitive habitats and waters of the United States.	Caltrans	During construction		
CON-51	In addition to specific BMPs identified in the SWPPP, project construction shall be carried out under standard BMPs (e.g., no staging or vehicle repair in sensitive areas, implementation of erosion control measures, and fuel spill cleanup). During project construction, the proper use and disposal of oil, gasoline, diesel fuel, antifreeze, lead paint, and other toxic substances shall be enforced. No construction materials, equipment, debris, or waste shall be placed or stored where it may be subject to tidal erosion and dispersion. Construction materials shall not be stored in direct contact with the soil anywhere along the project alignment.	Caltrans	During construction		
CON-52	Measures to contain all contaminated soils and material, including contaminated topsoil and lead-based paint from demolished bridges, shall be in place prior to and during soil moving (e.g., grading) and demolition activities. All contaminated soils and material shall be removed from the BSA and disposed of at an approved disposal site.	Caltrans	Prior to and during soil moving		
CON-53	Construction techniques utilized within and adjacent to the Los Angeles River channel will be designed to minimize effects on downstream conditions (e.g., flow rate or turbidity). During low flow, there will be no substantial contribution to or disruption of normal processes downstream. However, some minimal isolation of work may be required to minimize turbidity (e.g., air bubble	Caltrans	During construction within and adjacent to the Los Angeles River channel		

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	curtain system or air-filled isolation casings around bridge support structures). Any potential disruption during storm events will be inconsequential amid typical high-volume flows.				
CON-54	All debris generated during bridge construction and deconstruction would be prevented from settling into the Los Angeles River. When work is taking place over the Los Angeles River, floating booms (and/or other acceptable equipment) shall be used to contain debris. All construction-related debris shall be removed no later than the end of each day.	Caltrans	During bridge construction and deconstruction over the Los Angeles River.		
CON-55	A biological monitor will be on site during pile-driving activities in the Los Angeles River to monitor fish that may become injured or killed during the pile driving. All pile driving and bridge construction will take place during daylight hours. If fish are observed to be injured or killed, pile driving will cease, and the CDFG and NMFS will be contacted to determine appropriate steps to avoid additional effects to the fish. The results of the pile-driving monitoring will be reported to Caltrans within two weeks following the completion of pile-driving activities at each location.	Caltrans	During pile driving in the Los Angeles River		
CON-56	To minimize impacts of pile driving in the Los Angeles River, minimal impact construction equipment and methods (e.g., a vibrating driver, crane, vibratory hammer, or hydraulic press) will be used during construction.	Caltrans	During pile driving in the Los Angeles River		
CON-57	To minimize impacts of pile driving in the Los Angeles River, sound levels will be monitored during pile-driving activities in the Los Angeles River to ensure that peak sound levels do not exceed the threshold for injury to fish (206 decibels [dB] peak or 183 dB Sound Exposure Level [SEL]). If sound levels exceed threshold, additional mitigation measures (e.g., work when the current is reduced, using a hydraulic hammer, the smallest hammer needed to advance the pile, air bubble curtain system, or air-filled isolation casings) will be developed in consultation	Caltrans	During pile driving in the Los Angeles River		

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	with the resource agencies.				
CON-58	Prior to the start of construction, Caltrans shall apply for and obtain an Individual Permit (IP) and/or a Letter of Permission (LOP) from the United States Army Corps of Engineers (USACE) for effects to jurisdictional wetlands pursuant to Section 404 of the CWA and Section 10 of the Rivers and Harbors Act, respectively.	Caltrans	Prior to the start of construction		
CON-59	Prior to the start of construction, Caltrans shall apply for and obtain a Lake or Streambed Alteration Agreement (SAA) from the CDFG for impacts to riparian and streambed areas under the jurisdiction of Section 1602 of the Fish and Game Code.	Caltrans	Prior to the start of construction		
CON-60	Prior to the start of construction, Caltrans shall apply for and obtain a Water Quality Certification from the RWQCB for effects to jurisdictional wetlands pursuant to Section 401 of the CWA.	Caltrans	Prior to the start of construction		
CON-61	During construction, Caltrans shall ensure that a qualified biologist will monitor construction within the vicinity of southern tarplant populations for the duration of the project to ensure that vegetation removal, BMPs, ESAs, and all avoidance and minimization measures are properly implemented.	Caltrans	During construction		
CON-62	A biologist will monitor construction within the vicinity of BUOW locations (if present) for the duration of the project to ensure that vegetation removal, BMPs, ESAs, and all avoidance and minimization measures are properly implemented.	Caltrans	During construction within the vicinity of burrowing owl locations		
CON-63	In order to avoid effects to nesting birds, bridge demolition, native vegetation removal, or tree-trimming (native or exotic) activities will occur outside of the nesting bird season (February 15–September 1). In the event that vegetation clearing is	Caltrans	During any bridge demolition, native vegetation removal, or tree-		

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No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	<p>necessary during the nesting season, a qualified biologist must conduct a preconstruction survey to identify the locations of nests. Should nesting birds be found, an exclusionary buffer will be established by the biologist. This buffer will be clearly marked in the field by construction personnel under the guidance of the biologist, and construction or clearing will not be conducted within this zone until the biologist determines that the young have fledged or the nest is no longer active.</p>		trimming activities		
CON-64	<p>On-site pets and the deliberate feeding of wildlife will be prohibited.</p>	Caltrans	During construction		
CON-65	<p>Within 30 days prior to any phase of construction, preconstruction surveys will be conducted to ensure that any BUOW that may occupy the site are not affected by construction activities. These preconstruction surveys are also required in order to demonstrate compliance with the MBTA and the California Fish and Game Code. If any of the preconstruction surveys determine that BUOW are present, mitigation measures may be required. The specifics of the required measures shall be coordinated between Caltrans District Biologist and the resource agencies.</p>	Caltrans	Within 30 days prior to any phase of construction		
CON-66	<p>If any of the preconstruction surveys determine that BUOW are present, one or more of the following measures may be required: (1) avoidance of active nests and surrounding buffer area during construction activities; (2) passive relocation of individual owls; (3) active relocation of individual owls; and (4) preservation of on-site habitat with long-term conservation value for the owl. The specifics of the required measures shall be coordinated between the Caltrans District Biologist and the resource agencies.</p>	Caltrans	Prior to and during construction		
CON-67	<p>In June prior to construction, a qualified bat biologist will survey the project area to assess the potential for its use as a maternity roost, since maternity roosts are generally formed in late spring. The qualified bat biologist shall also perform preconstruction</p>	Caltrans	In June prior to construction		

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	surveys, since bat roosts can change seasonally. The surveys shall include a combination of structure inspection, sampling, exit counts, and acoustic surveys. Preconstruction surveys shall also include nighttime surveys to determine whether night-roosting bats are present. If a maternity roost is found, no work will take place on that structure until the end of the maternity season and exclusion devices are installed.				
CON-68	In order to prevent effects to bridge- and crevice-nesting bats and birds (i.e., swifts), all work on existing bridges with potential habitat identified during the preconstruction surveys (including bat maternity roosts) will have bat/bird exclusion devices installed between September 1 and November 30 (with consideration of weather conditions). Installation of the exclusion devices will be conducted under the guidance of a qualified biologist and will be limited if weather conditions are such that they will be harmful to evicted species (e.g., cold temperatures). Such exclusion efforts must be continued to keep the structures free of bats and birds until the completion of construction. All exclusion techniques shall be coordinated between the Caltrans District Biologist and the resource agencies.	Caltrans	During construction on existing bridges with potential habitat for bridge- and crevice-nesting bats		
CON-69	In order to prevent project effects to bridge- and crevice-nesting birds (i.e., swallows), all work on existing bridges with potential habitat that is conducted between February 15 and September 1 will be removed of all bird nests prior to construction under the guidance and observation of a qualified biologist prior to February 15 of that year, before the swallow colony returns to the nesting site. Removal of swallow nests that are under construction must be repeated as frequently as necessary to prevent nest completion or until a nest exclusion device is installed (such as netting or a similar mechanism that keeps birds from building nests). Nest removal and exclusion device installation shall be monitored by a qualified biologist. Such exclusion efforts must be continued to keep the structures free of swallows until September 1 or completion of construction. All	Caltrans	Any construction on existing bridges with potential habitat that is conducted between February 15 and September 1		

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	nest exclusion techniques will be coordinated between the Caltrans District Biologist and the resource agencies.				
CON-70	Construction work in the vicinity of the Los Angeles River, adjacent parks, wetlands, and vacant lands will be limited to daylight hours to minimize disturbance to wildlife movement to the best extent feasible. However, this may be difficult to achieve since most highway construction in the region is conducted at night to avoid impacting commuter traffic. If work must be done at night, noise and lighting will be directed away from the Los Angeles River, adjacent parks, wetlands, and vacant lands.	Caltrans	During any construction work in the vicinity of the Los Angeles River		
CON-71	The Los Angeles River corridor will be kept clear of all equipment or structures that could potentially serve as barriers to wildlife passage.	Caltrans	During any construction work in the vicinity of the Los Angeles River		
CON-72	<p>A weed abatement program will be developed to minimize the importation of nonnative plant material during and after construction. Eradication strategies will be employed should an increase in invasive plants occur.</p> <p>At a minimum, this program will include:</p> <ul style="list-style-type: none"> ▪ Preconstruction surveys for <i>Caulerpa taxifolia</i> are warranted to ensure that the BSA is not infested with this nonnative invasive seaweed. If present, containment and eradication of any individuals of this species prior to construction will be required. ▪ During construction, the construction contractor will inspect and clean construction equipment at the beginning and end of each day and prior to transporting equipment from one project location to another. ▪ During construction, soil and vegetation disturbance will be minimized to the greatest extent feasible. 	Caltrans	Prior to and during construction		

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	<ul style="list-style-type: none"> ▪ 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. ▪ During construction, the construction contractor shall ensure that all material stockpiled is sufficiently watered or covered to prevent excessive amounts of dust. ▪ During construction, soil/gravel/rock will be obtained from weed-free sources. ▪ Only certified weed-free straw, mulch, and/or fiber rolls will be used for erosion control. ▪ After construction, affected areas adjacent to native vegetation will be revegetated with plant species approved by the Caltrans District Biologist that are native to the vicinity. ▪ After construction, all revegetated areas will avoid the use of species listed in California Invasive Plant Council's (Cal-IPC) California Invasive Plant Inventory that have a high or moderate rating. ▪ Eradication procedures (e.g., spraying and/or hand weeding) will be outlined should an infestation occur; the use of herbicides would be prohibited within and adjacent to native vegetation, except as specifically authorized and monitored by the Caltrans District Biologist. 				
CON-73	<p>Prior to completion of Plans, Specifications, and Estimates for construction, Caltrans shall consult with the lead agencies of other major projects within two miles of the I-710 Corridor Project to ensure that the construction plans are coordinated and do not result in conflicts regarding construction staging areas, roadway</p>	Caltrans	<p>Prior to completion of Plans, Specifications, and Estimates</p>		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	closures, or detour routes.				

CLIMATE CHANGE

To the extent that it is applicable or feasible for the project and through coordination with the project development team, the following measures will also be included in the project to reduce the GHG emissions and potential climate change impacts from the project:

- Caltrans and the California Highway Patrol are working with regional agencies to implement Intelligent Transportation Systems (ITS) to help manage the efficiency of the existing highway system. ITS is commonly referred to as electronics, communications, or information processing used singly or in combination to improve the efficiency or safety of a surface transportation system.
- In addition, the Metro provides ridesharing services and park-and-ride facilities to help manage the growth in demand for highway capacity.
- Landscaping reduces surface warming, and through photosynthesis, decreases CO₂. Landscaping would be provided where necessary within the corridor to provide aesthetic treatment, replacement planting, or mitigation planting for the I-710 Corridor Project. The landscape planting would help offset any potential CO₂ emissions increase.
- The project would incorporate the use of energy efficient lighting, such as light-emitting diode (LED) traffic signals. LED bulbs—or balls, in the stoplight vernacular—cost \$60 to \$70 apiece but last five to six years, compared to the one-year average lifespan of the incandescent bulbs previously used. The LED balls themselves consume 10 percent of the electricity of traditional lights, which will also help reduce the projects CO₂ emissions.¹
- According to Caltrans Standard Specification Provisions, idling time for lane closure during construction is restricted to ten minutes in each direction. In addition, the contractor must comply with Title 13, California Code of Regulations §2449(d)(3) adopted by ARB on June 15, 2008. This regulation restricts idling of construction vehicles to no longer than 5 consecutive minutes. Compliance with this regulation reduces harmful emissions from diesel-powered construction vehicles.

¹ Knoxville Business Journal, “LED Lights Pay for Themselves,” May 19, 2008 at <http://www.knoxnews.com/news/2008/may/19/led-traffic-lights-pay-themselves/>.