

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>areas. Construction equipment staging/storage shall be located in previously disturbed or non-native areas to the maximum extent possible</p>		
<p><u>Measure WW-8.</u> During all construction activities, the Contractor shall ensure that no waste material shall be discharged to any CDFG or USACOE jurisdictional areas. Spoil sites shall not be located within any CDFG or USACOE jurisdictional areas, or in areas where it could be washed into any surface water body.</p>	<p>Contractor, with oversight by Project Biologist</p>	<p>During construction activities</p>
<p><u>Measure WW-9.</u> Prior to final design, the Contractor shall prepare the final construction Runoff Management Plan (RMP). The plan shall address the final location of facilities to route and detain corridor runoff for the purpose of maintaining peak flows and flow velocities downstream of the Alignment at existing rates and preventing project pollutants from reaching improved and unimproved downstream drainages. County of Orange Best Management Practices (BMPs) will be included in these runoff facilities of the Alternatives as determined appropriate by the Design Engineer. The final RMP will contain provisions for changes to the plan (e.g., alternative mechanisms plant materials) if necessary during project design and/or construction phases to achieve the stated goals and performance standards at an equal or greater level. The RMP will address issues of detention and settlement basin design for mitigation requirements in relation to water quality. The plan shall be submitted to the Regional Water Quality Control Board (RWQCB), Caltrans, and the Orange County Environmental Management Agency (OCEMA) Environmental Planning Division for review and comment. (RMP, Psomas 2003.)</p>	<p>Contractor</p>	<p>Prior to final design</p>
<p><u>Measure WW-10.</u> The Contractor shall locate staging areas for construction equipment outside of areas in the jurisdiction of the USACOE or CDFG to minimize impacts to sandy creek benches.</p>	<p>Contractor, with oversight by Project Biologist</p>	<p>Prior to construction</p>
<p><u>Measure WW-11.</u> Prior to final design, the TCA shall prepare a jurisdictional delineation documenting the Waters of the U.S. and wetlands, CDFG, and CCC jurisdictional impacts for the selected alternative.</p> <p>Prior to final design, the TCA shall prepare a functional assessment of the wetland mitigation plan according to the tenets of the USACOE Regulatory Guidance Letter 02 2 to assure that the functions and values have been replaced and that no net loss of waters and wetland values occur. Habitat replacement guidelines shall be developed to identify and quantify habitats that will be removed along with the locations where habitats will be restored or relocated to ensure no net loss.</p>	<p>TCA</p>	<p>The jurisdictional delineation has been completed and is included in Final SEIR 4</p>

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
Mitigation Measures Related to Wildlife, Fisheries, and Vegetation		
<u>Measure WV-1.</u> Mitigation measure WV-1 is the same as mitigation measure WW-1 in Section 8.10. Please see mitigation measure WW-1.	See mitigation measure WW-1 in Section 8.10	See mitigation measure WW-1 in Section 8.10
<u>Measure WV-2.</u> During final design of the project, the TCA Project Biologist shall review the design plans and make recommendations for avoidance and minimization of sensitive biological resources. TCA Environmental and Engineering Staff shall determine the implementation of those recommendations.	Project Biologist	During final design
<p><u>Measure WV-3.</u> A Biological Resources Management Plan (BRMP) shall be prepared prior to construction. The BRMP shall provide specific design and implementation features of the biological resources mitigation measures outlined in the resource agency approval documents. Issues to be discussed in the BRMP shall include, but are not limited to, resource avoidance, minimization, and restoration guidelines, performance standards, maintenance criteria, and monitoring requirements. The Draft BRMP shall be submitted to the USFWS, National Marine Fisheries Service (NMFS), CDFG, USACOE, RWQCB, FHWA and Caltrans for review to the extent required by permit by such agencies.</p> <p>The primary goal of the BRMP will be to ensure the long-term perpetuation of the existing diversity of habitats in the project area and adjacent urban interface zones. The BRMP shall contain at a minimum the following:</p> <ol style="list-style-type: none"> a. Identification of all Environmental Sensitive Areas (ESA). ESA are defined as sensitive habitats including, but not limited to, areas subject to the jurisdiction of the CDFG, USACOE, and USFWS; areas supporting endangered, threatened or rare species; and areas supporting vegetation communities described as sensitive. b. Design of protective fencing (i.e., t-bar or yellow rope) around ESAs and the construction staging areas. c. Specific procedures during construction for the protection of sensitive plant, amphibian, reptile, bird, and mammal species, including perimeters around drip line oak trees. d. Locations of trees to be protected as wildlife habitat (roosting sites). e. Procedures for topsoil preservation and erosion control. f. A summary of the type and quantification of habitats to be removed. g. For areas that will be restored, the quality of the adjacent habitat will be 	TCA	Prior to construction

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>characterized. This characterization shall include species composition, density, coverage, and presence of non-natives. This characterization will provide a baseline to compare the success of the restoration. The site preparation plan for each restoration site will include:</p> <ul style="list-style-type: none"> • Sources of plant materials and methods of propagation. • Site preparation (clearing, grading, weed eradication, soil amendment, topsoil storage), irrigation, planting (container plantings, seeding), and maintenance (weed control, irrigation system checks, replanting) of restoration areas. Specification of parameters for maintenance and monitoring of restoration areas, including weed control measures, frequency of field checks, and monitoring reports for temporary disturbance areas within the project right-of-way. • Remedial measures to be taken if performance standards are not met. • Methods and requirements for monitoring of the restoration efforts. • Specification of the purpose, type, frequency, and extent of chemical use for insect and disease control operations as part of vegetative maintenance within restoration areas. <p>h. Specific construction monitoring programs for sensitive species including Coulter's saltbush, intermediate mariposa lily, southern tarplant, many-stemmed dudleya, western spadefoot toad, southwestern pond turtle, two-striped garter snake, and San Diego cactus wren.</p> <p>i. Specific measures for the protection of sensitive habitats to be preserved within and adjacent to the right-of-way to ensure that construction does not increase the impacts. These measures will include, but are not limited to, erosion and siltation control measures, protective fencing guidelines, dust control measures, grading techniques, construction area limits, and biological monitoring requirements. Details of the erosion, siltation, and dust control mitigation measures will be outlined in the Storm Water Pollution Prevention Plan (SWPPP).</p> <p>j. Provisions for biological monitoring during construction activities to ensure compliance and success of each avoidance and minimization measure. The monitoring procedures will (1) identify specific locations of wildlife habitat and sensitive species to be monitored; (2) identify the frequency of monitoring and monitoring methods (for each habitat and sensitive species to be monitored); (3) list required qualifications of biological monitor(s); and (4) identify reporting requirements.</p>		

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>Measure WV-4. During grading activities and/or construction operations, the Project Biologist shall conduct monitoring within and adjacent to sensitive habitats including installation of protective devices (silt fencing, sandbags, fencing, etc.), installation and/or removal of creek crossing fill, construction of access roads, vegetation removal, column installation, false work installation and removal, and other associated construction activities, as deemed appropriate by the Project Biologist.</p>	Project Biologist	During grading activities and/or construction operations
<p>Measure WV-5. During grading activities and construction operations, the Project Biologist shall prepare a monthly biological monitoring letter report summarizing site visits, documenting adherence or violations of required habitat avoidance measures, and listing any necessary remedial measures. The report shall be submitted to the TCA and/or other implementing resource agencies.</p>	Project Biologist	Monthly during grading activities and construction operations
<p>Measure WV-6. Prior to the commencement of grading activities or other activities involving vegetation/habitat removal, the Project Biologist shall attend preconstruction meetings with construction foremen, bridge engineers, and the TCA to confirm that all environmental conditions are discussed. Monthly, or on an as needed basis, new construction personnel shall complete an educational program. Issues to be covered will include, but are not limited to, environmental measures for avoiding impacts to sensitive biological resources, ESAs, waste disposal, vehicle transportation routes, seasonal restrictions, fueling/maintenance restrictions, and other relevant topics.</p>	Project Biologist	Prior to the commencement of grading activities or other activities involving vegetation/habitat removal
<p>Measure WV-7. In conjunction with final design, the Project Biologist shall work closely with the Contractor to develop native plant palettes for revegetation areas adjacent to the roadway that abut natural open space and will be implemented by the Contractor. Final landscape design plans, which will be approved by the TCA, shall reflect the following and shall be incorporated into the BRMP:</p> <ul style="list-style-type: none"> • The landscaping along the corridor in open space (non-urban) areas shall be a mix of native, non-invasive, drought tolerant plant species from the scrub, grassland, and chaparral communities. All plants used shall comply with federal, state, and county laws requiring inspection of infestation. The vendor shall provide certification of inspection from the County of Orange and/or San Diego department of agriculture. The Project Biologist shall also inspect all plants before accepting delivery. • The landscaping community type installed shall be consistent with the plant communities that occur in the vicinity of the intended landscape area. 	Project Biologist, in conjunction with Contractor and with oversight by TCA	During final design

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<ul style="list-style-type: none"> • Seeds, cuttings, and potted plants shall be collected from local plant material as appropriate, supplemented by material from native plant nurseries. The seed vendor shall furnish certification that the seed has been tested for purity by a certified seed laboratory and does not contain seed of any non-native, invasive species. • Native California plant species found in the project area shall be used. Invasive, noxious weed, or non-native species identified on the State of California List of Noxious Weed Species or the California Exotic Pest Plant Council Exotic Pest Plants (CalEPPC) of Greatest Ecological Concern in California List shall not be used in landscaping along open space areas. • All mulches used shall be free of invasive species seed. • Landscape areas shall be subject to maintenance during plant establishment (i.e., non-native species removal) that will be directed by the Project Biologist. However, the landscape areas shall not be subject to performance standards and will not be subject to mitigation in the future if construction occurs. • Temporary low-volume irrigation systems, using reclaimed water (where available), shall be included in the final design of the selected alternative. <p>Portions of the landscaped areas within the Caltrans maintenance area and adjacent to the roadway may be subject to fuel modification requirements, which may preclude the use of many project-indigenous species. In these instances, plant palettes may contain both the California native plant cultivars which will be purchased and indigenous plant species found in the project area. This is due to the limited number of indigenous plant species included within the Orange County Fire Authority Fuel Modification Plant List.</p>		
<p>Measure WV-8. Mitigation measure WV-8 is the same as mitigation measure WW-4 in Section 8.10. See mitigation measure WW-4.</p>	See mitigation measure WW-4 in Section 8.10	See mitigation measure WW-4 in Section 8.10
<p>Measure WV-9. Caltrans procedures shall be followed for the protection of ESAs. These procedures are: (1) no construction access, parking, or storage of equipment or materials will be permitted within marked ESAs or other jurisdictional areas; (2) to the maximum extent practicable, construction access points shall be limited in proximity to protected habitat; (3) waste, dirt, and trash shall not be deposited on protected habitat; (4) vehicle transportation routes shall be confined to the narrowest practicable area in areas adjacent to marked, protected habitats during construction/operations activities, (5) no</p>	Contractors	During construction

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>construction personnel shall be permitted access to these areas except for the purpose of invasive species removal without the Project Biologist's approval, and (6) disposal of trash adjacent to ESAs shall be removed/emptied on a daily basis.</p>		
<p>Measure WV-10. Prior to the commencement of grading activities or other activities involving vegetation/habitat removal, the Project Biologist shall field verify that protective fencing (t bar/yellow rope and silt fencing when construction is upslope from sensitive habitat) has been installed along the disturbance limits. Additionally, the Project Biologist shall verify that all other Caltrans procedures for ESAs, identified and mapped on grading plans, have been installed by the construction contractor. These protective fences shall be field verified by the Project Biologist on a regular basis.</p>	Project Biologist	Prior to commencement of grading or other activities involving vegetation/habitat removal and regularly during grading and construction
<p>Measure WV-11. To mitigate impacts, the TCA has identified additional habitat preservation and restoration activities in the Upper Chiquita Canyon Conservation Area. The Upper Chiquita Canyon Conservation Area consists of approximately 478.7 hectares (1,182 acres) created by the TCA to mitigate biological impacts resulting from construction of the FTC N. Of these 478.7 hectares (1,182 acres), 327 credits have been set aside as a mitigation bank for future project impacts. The Conservation Area was originally under substantial threat for development and the resources within the Area have been conserved, but otherwise would have been lost or substantially degraded. In addition, the Upper Chiquita Canyon Conservation Area provides opportunities for preservation activities consisting of additional habitat for oak woodland and sensitive plant species. There are also opportunities for restoration activities on site that would include additional acres of oak woodland, non-wetland drainages, coastal sage scrub, coastal sage scrub/native perennial grassland ecotone, and native perennial grassland habitats. These opportunities for preservation and restoration activities would also serve to mitigate impacts on sensitive plants for the SOCTIIP Alternatives.</p> <p>a. Impacts to scrub communities (and all sub-types thereof except floodplain sage scrub) shall be mitigated through the use of scrub mitigation credits in the Upper Chiquita Canyon Conservation Easement area and additional preservation (if necessary). The Upper Chiquita Canyon Conservation Easement area currently contains 327 mitigation credits approved by the USFWS and CDFG. The scrub areas impacted by the selected alternative will be mitigated at a credit to hectare ratio of 1:0.40 (one Upper Chiquita Canyon Conservation Easement mitigation credit for every 0.40 ha impact</p>	TCA	Prior to commencement of grading

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>or one Upper Chiquita Canyon Conservation Easement mitigation credit for every 1.0 ac lost).</p> <p>b. Any additional scrub areas restored within the Upper Chiquita Canyon Conservation Easement area may be added to the credit total, with the approval of the USFWS, and applied to the mitigation ratio accordingly. The TCA and the USFWS shall determine the criteria for the establishment of the new credits for the restored areas pursuant to the Upper Chiquita Canyon Conservation Bank Agreement which was entered into with the USFWS and the CDFG.</p> <p>c. Any scrub areas that are impacted by the selected alignment and that have not been mitigated by the use of the Upper Chiquita Canyon Conservation Easement mitigation credits (i.e., impact area exceeds mitigation credits available) shall be mitigated through preservation at a ratio of 1:1 (0.4 ha [one ac] for every 0.4 ha [one ac] lost), or other mitigation requirement that is necessary to meet the regulatory standards of an applicable state or federal regulatory program.</p>		
<p>Measure WV-12. (Duplicate of Measure TE-26). Impacts to native grasslands shall be mitigated at a 1:1 ratio through either preservation or restoration in designated open space (e.g., Upper Chiquita Canyon Conservation Easement). Should restoration be proposed, the restoration areas shall be located in areas deemed appropriate by the project biologist for native grassland restoration. Restoration areas shall occur within dedicated open space areas including, but not limited to, the Upper Chiquita Canyon Conservation Easement area. The restoration program for native grassland areas shall be included in the BRMP and shall include the following measures.</p> <ul style="list-style-type: none"> • Site analysis for appropriate soils. • Site preparation specifications based on site analysis, including but not limited to grading, and weeding. • Specifications for plant and seed material appropriate to the locality of the mitigation site and the timing of restoration activities. • Specifications for site maintenance to establish the habitats, including but not limited to weeding and temporary irrigation. <p>Restoration areas shall be considered successful at five years if the following standards are achieved:</p> <ul style="list-style-type: none"> • The site does not require substantial maintenance for at least two consecutive years during the monitoring period. • The site must exhibit evidence of natural recruitment of native species, 	TCA and Project Biologist	Prior to commencement of grading and ongoing for five years after establishment of restoration areas

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>including plant reproduction and/or setting of seeds.</p> <ul style="list-style-type: none"> • Soil at the site exhibits a level of beneficial arbuscular mycorrhizal fungi that is comparable to an appropriate reference site, as demonstrated through soil infestivity potential. • Absolute percent cover of native species is comparable to the absolute cover of native species at an appropriate reference site within an 80 percent confidence limit. • An index of species diversity of the restored and/or created habitat areas is statistically comparable to an appropriate reference site within an 80 percent confidence limit. <p>Monitoring shall be conducted for five years (or less if site meets success criteria as designated above earlier) to ensure successful establishment of native grassland vegetation within the restored areas. If success standards are not met, remedial measures, hydroseeding, or introduction of container stock shall be implemented as directed by the Project Biologist.</p>		
<p>Measure WV-13.</p> <p>a. TCA will mitigate impacts to coast live oak and elderberry woodland communities by replacing, creating, restoring, or preserving (1) 0.4047 ha (one ac) of the identified resource for every 0.4047 ha (one ac) of the applicable resource impacted by the project, or (2) such other mitigation requirement that is necessary to meet the regulatory standards of an applicable state or federal regulatory program. Preservation and restoration areas shall occur within dedicated open space areas including, but not limited to, the Upper Chiquita Canyon Conservation Easement area as determined by the Project Biologist.</p> <p>b. The restoration program shall be detailed with the BRMP. Prior to restoration of these communities, hydrological testing and monitoring of the creation site shall be conducted to determine that sufficient hydrology exists to support the community. If necessary, a temporary irrigation program shall be incorporated into the mitigation design to ensure successful establishment of the community. The RMP will address issues of detention and settlement basin design for mitigation requirements in relation to water quality.</p> <p>The following performance standards shall apply for the restoration of elderberry woodland areas. Restoration shall be considered successful if:</p>	<p>TCA and Project Biologist</p>	<p>Prior to commencement of grading and ongoing for five years after establishment of restoration areas</p>

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<ul style="list-style-type: none"> • The site does not require substantial maintenance for at least two consecutive years during the monitoring period. • The site must exhibit evidence of natural recruitment of native species, including plant reproduction and/or setting of seeds. • Absolute percent cover of native upper and mid canopy species is 70 percent. • An index of species diversity of the restored areas is statistically comparable to an appropriate reference site within an 80 percent confidence limit. <p>For coast live oak woodland, the following standards shall apply:</p> <ul style="list-style-type: none"> • The site does not require substantial maintenance and meets the success criteria established for this community for at least two consecutive years during the monitoring period. • The site must exhibit evidence of natural recruitment of native species, including plant reproduction and/or setting of seeds. • Absolute percent cover of native upper and mid canopy species is 50 percent, with five percent cover from oak trees. • An index of species diversity of the restored areas is statistically comparable to an appropriate reference site within an 80 percent confidence limit. <p>c. Monitoring shall be conducted for five years (or less if success criteria are met earlier) to ensure successful establishment of the restored areas. If success standards are not met, remedial measures including introduction of additional seed and/or container stock and adjusting of irrigation shall be implemented as directed by the Project Biologist.</p>		
<p><u>Measure WV-14.</u> In conjunction with construction activity, the Contractor shall control dust accumulation on natural vegetation at the source of disturbance by standard dust control measures (Mestre Greve Associates 2003).</p>	Contractor	During grading and construction
<p><u>Measure WV-15.</u> Prior to final design of the selected alternative, the Project Biologist shall ensure that the location of the proposed wildlife bridges and culvert identified in the NES will provide adequate travel capabilities, contain adequate vegetation cover, have adequate daylight, and have appropriate fencing to encourage animals to use these underpasses. Upon selection of and refinement to, the selected alternative, smaller culverts and bridges that will be necessary to provide drainage and/or avoid impacts to jurisdictional areas shall</p>	Project Biologist	Prior to final design

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>also be designed, at the direction of the Project Biologist, to promote local and regional wildlife movement.</p>		
<p>Measure WV-16. Prior to, or in conjunction with, the permit of application and/or process, Caltrans (Environmental and Maintenance) and resource agencies are to be given an opportunity for review and approval of the design of wildlife movement bridges, undercrossings, and culverts.</p> <p>The width and the height of the wildlife bridges specified in this mitigation measure are those provided by Caltrans as minimum standards. This approach is appropriate and such detail can be provided during further discussions and only for the selected project. To demonstrate the success of this approach, the TCA has monitored seven wildlife undercrossings during the fall and spring of each year since 1999. The wildlife undercrossings are along the Foothill and Eastern Transportation Corridors and consist of bridges as well as large diameter culverts. Methods used to document the presence and diversity of wildlife using the undercrossings include scent stations, spotlight surveys, general scat surveys, and direct observations. The data have shown that there is a considerable amount of wildlife within the study area using the undercrossings. The wildlife observed using the undercrossings includes mountain lions, bobcats, coyotes, gray foxes, and mule deer. This usage demonstrates the overall success of the undercrossings in allowing wildlife continued movement throughout the region. In summary, preliminary results indicate that wildlife is continuing to use the undercrossings along the Toll Roads.</p> <p>a. Wildlife bridges and culverts shall be designed to provide approaching animals a clear view of the habitat or horizon on the opposite site of the structure. The minimum width at the base of the wildlife bridge or culvert shall be six m (20 ft). The minimum vertical clearance shall be 5.2 m (17 ft) from the floor of the bridge/culvert to the bottom of the structure. No artificial lighting shall be installed or used in or around the bridge/culvert, unless otherwise required to meet Caltrans approval. The ground surface of the wildlife bridges and culverts shall be constructed with a slope ratio of 1:1.5 (V:H).</p> <p>b. Dirt or natural vegetation substrates, rather than concrete or other human-made material, will be placed along the bottom of the bridges or culverts as reasonably feasible.</p>	<p>TCA and Project Biologist</p>	<p>Prior to, or at the time of, resource agency permit application and/or process</p>

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>c. Vegetation naturally occurring on the side slopes to the entrances to the underpass will not be removed, to the extent feasible. Where natural vegetation at underpass entrances does not occur, is minimal, or has been removed as a result of bridge or culvert construction, vegetation shall be planted along the slopes that match the closest intact native vegetation. Low-lying shrubs and/or small trees native to the area will be planted to encourage wildlife use of the underpass.</p> <p>d. The appropriate vegetation-type and quantity will be determined by the Project Biologist during construction of the underpass and will consist, at a minimum, of appropriate large shrubs and trees that will achieve at least 1.5 m (five ft) in height at maturity. The replanting will occur during the final stages of underpass construction or immediately following construction in the appropriate season for planting. The planting of vegetation at bridges over drainages shall be compatible with flood control requirements.</p> <p>e. Materials such as rip-rap will not be used in or around the underpass entrances unless required by hydrology/hydraulic conditions.</p>		
<p><u>Measure WV-17.</u> Prior to operation of the corridor, chain-link, wire mesh with metal poles, or similar fencing of at least 2.1 m (seven ft) in height will be erected on both sides of the selected alternative from the underpass entrance to a distance of at least 1.0 km (0.62 mi) along the corridor to “funnel” wildlife to the underpass area and to minimize wildlife attempts to cross the roadway surface. Fence height up to three m (10 ft) in height will be used in areas deemed appropriate by the project biologist, TCA, USFWS, FHWA and Caltrans.</p> <p>Wildlife fencing adjacent (100 m/328 ft) to wildlife movement underpasses will be inspected semiannually to identify and repair any gaps or tears in the fence caused by erosion, storm events, vandalism, burrowing animals, or other means that could allow wildlife access onto the roadway surface. TCA will be responsible for the wildlife fencing for the first three years of completing the corridor, with Caltrans assuming responsibility thereafter.</p>	TCA and Caltrans	During construction and ongoing for three years after project opening
<p><u>Measure WV-18.</u> Prior to operation of the corridor, road signs indicating the potential for deer and mountain lion movement shall be installed where indicated by the Project Biologist, due to the potential for wildlife to circumvent the wildlife fencing.</p>	Project Biologist and Contractor	Prior to operation of the corridor
<p><u>Measure WV-19.</u> All bridges and culverts in the final design plan will be monitored for a period of three years to document the effectiveness of use.</p>	Project Biologist	For three years after project opening

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>Target species to be evaluated shall be determined by the Regulatory permits, including: USFWS, ACOE and CDFG, specific to each bridge and culvert. Wildlife movement studies will be conducted at each underpass twice each year for at least eight weeks during the periods between March and May and between September and November. The studies will begin during the first full time period (beginning with March or September) occurring after the opening of the corridor. Reports will be prepared and submitted to the TCA annually. Based on results of surveys, recommendations to enhance wildlife use of underpasses shall be provided as appropriate (i.e., fencing modification, vegetation enhancement, or clearing, etc.).</p>		
<p><u>Measure WV-20.</u> In conjunction with final design, the TCA shall incorporate low-light design features, where feasible, adjacent to the following sensitive wildlife habitats: bridges or culverts within wildlife corridors, and scrub, riparian, and woodland communities. One or more of the following design options shall be used, if feasible, recognizing the constraints of roadway lighting requirements: (1) low-intensity street lamps, (2) low-elevation light poles, or (3) shielding by internal silvering of the globes or external opaque reflectors. Design features shall meet Caltrans approval.</p>	TCA, subject to Caltrans approval	At time of final design
<p><u>Measure WV-21.</u> During final design, the TCA, in coordination with the RMP, shall design, construct, and/or maintain any structure/culvert placed within a stream where sensitive fish species do/may occur such that it does not constitute a barrier to upstream or downstream movement of aquatic life, or cause an avoidance reaction by fish that impedes their upstream or downstream movement. This includes, but is not limited to, the supply of water at an appropriate depth for fish migration.</p>	TCA	During final design
<p><u>Measure WV-22.</u> Prior to construction of the selected alternative, focused sensitive plant species surveys shall be conducted to determine the distribution of sensitive plants within the impact area of the selected alternative so appropriate avoidance (for all sensitive plant species), and seed collection and salvage measures (for Coulter's saltbush, intermediate mariposa lily, southern tarplant, and many-stemmed dudleya) can be implemented. This measure will ensure that the biologist obtains the current onsite conditions, just prior to construction, to maximize avoidance. Surveys shall be conducted during the appropriate time of year (i.e., during the flowering period for each species). Locations of sensitive plant species shall be mapped and shown on construction drawings and identified as ESAs. During final design, temporary access roads will be sited with the approval of the Project Biologist so as to avoid or</p>	Project Biologist and Contractor	During final design and prior to construction

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>minimize impacts to sensitive plant populations.</p> <p><u>Measure WV-23. Measure WV-23.</u></p> <p>a. During the spring prior to grubbing or grading (or as determined by the Project Biologist), the limits of individual populations of Coulter's saltbush to be impacted shall be flagged and individual plants shall be marked with pin flags to facilitate the locating of individual plants after flowering. Prior to construction, seeds shall be collected from Coulter's saltbush plants from approximately June through October from ripened seed heads, for later propagation, by personnel experienced in collection of native seed and native plant propagation. This seed shall be stored by a certified seed bank. An appropriate site within the upper Chiquita Canyon Conservation Area or other area shall be identified for the seeding of this species by the Project Biologist. The site shall have similar soils, slope, aspect, and microhabitat characteristics as the site with occupied Coulter's saltbush to support this species.</p> <p>b. Prior to construction, 75 percent of the Coulter's saltbush plants within the area to be impacted shall be translocated to an appropriate site within the Upper Chiquita Canyon Conservation Area or within an appropriate open space dedication area within the region. Prior to the salvage operation, the number of Coulter's saltbush plants to be relocated shall be determined by the Project Biologist. The site can be the same or a different site than is used for the distribution of seed, but shall have similar soils, slope, aspect, and microhabitat characteristics as the site with occupied Coulter's saltbush. A bulldozer or loader shall be used to remove the top 30 cm (one ft) of soil, including all plant material which shall be loaded on flatbed trucks and transported to the receiver site. The Project Biologist shall coordinate all salvaging and relocation effort so that these operations occur in the appropriate season for maximum success.</p> <p>c. Re-establishment of Coulter's saltbush will be monitored for five years. The survival of relocated plants will be recorded each year. Relocation will be considered successful when the survivorship of the relocated plants has stabilized with a 50 percent survival rate, and establishment of seedlings from the seeded material is documented.</p>		
<p><u>Measure WV-24.</u></p> <p>a. Intermediate mariposa lily seed shall be collected from populations to be impacted. Prior to grubbing or grading (or as otherwise determined by the Project Biologist), the limits of individual populations to be impacted shall</p>	Project Biologist and Contractor	<p>a. Flagging prior to grubbing or grading; seed collection in late July/early August</p> <p>b. During two successive years and</p>

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>be flagged and individual plants shall be marked with pin flags to facilitate locating individual plants after flowering. Seed shall be collected in late July or early August from ripened seed heads, for later propagation or hand seeding, by personnel experienced in the collection of native seed and native plant propagation.</p> <p>b. Seed collection shall be conducted during two successive years and the following three-year program shall be implemented to ensure the likelihood of success. Propagated mariposa lilies typically exhibit a germination rate of 80 percent; this percentage shall be used to determine the number of seeds to be collected to ensure production of the same number of plants as shall be impacted by construction. The propagated plants shall be grown for two years to allow the bulbs to reach optimal size prior to transplantation. The remaining seed not used for propagation from the first year of seed collection shall be divided in half with one-half hand broadcast during the first year and the remaining one-half hand broadcast the following year.</p> <p>c. The propagated plants shall be introduced (over the three-year program), using at least a 2:1 ratio, into appropriate habitat in open space dedication areas, or as directed by the Project Biologist. Seeding shall occur in similar areas. Site selection shall be based on the presence of suitable habitat as determined by the Project Biologist. Bulbs from the propagated plants shall be planted at the end of the second growing season. The same program shall be followed for seed collected during the second year. Planting of bulbs and hand broadcasting of seed shall be performed in September or October.</p> <p>d. Re-establishment of intermediate mariposa lily will be monitored for three years following initial planting of the propagated plants and seeding. The survival of the plants will be recorded each year. Establishment of the population will be considered successful when the survivorship of the relocated plants has stabilized with a minimum 10 percent flowering in any one year of the monitoring period and establishment of seedlings from the seeded material is documented.</p>		<p>the following three-year program</p> <p>c. During the three-year program</p>
<p><u>Measure WV-25.</u></p> <p>a. Areas determined to have appropriate hydrology and soil chemistry (salinity) shall be reseeded with seed collected from populations of southern tarplant. Southern tarplant is restricted to saline, vernal mesic areas, often along the margins of estuaries or areas of high salinity. The Project</p>	<p>a. Project Biologist</p> <p>b. TCA and Project Biologist</p> <p>c. Project Biologist</p>	<p>a. Prior to construction</p> <p>b. For one year prior to construction</p> <p>c. For three years following initial seeding and additionally, if needed, as specified by the Project</p>

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>Biologist shall identify candidate areas within open space areas that exhibit suitable conditions for introduction of the tarplant.</p> <p>b. For one year prior to construction as feasible, the TCA shall have southern tarplant seed collected by personnel experienced in collection of native seeds. Seed collection shall be conducted during successive years from September through December. One-half of the first years' collected seed shall be hand broadcast at the reintroduction site with the remaining one-half stored in appropriate conditions for introduction the following year. Seed collected during the second season shall be stored for potential later use in the event that success standards are not met following the seeding during years one and two.</p> <p>c. Because southern tarplant is an annual species, population numbers are expected to naturally fluctuate from year to year depending upon environmental conditions. Reseeded areas shall be monitored for three years following the initial seeding. Establishment shall be considered successful if plant densities during any of the three years of monitoring are comparable to densities of the impacted populations based on sampling quadrants. If established populations do not achieve comparable densities of impacted populations, additional reintroduction sites shall be identified and stored seed, obtained during the collection period, shall be introduced into additional sites over a two-year period (as in the initial reintroduction program described above). The additional sites shall be monitored for three years and shall be considered successful if population numbers at all of the sites achieve densities of impact areas. If established populations have not reached the density threshold following the addition of supplemental sites, further remedial measures shall be implemented as determined appropriate by the Project Biologist.</p>		<p>Biologist</p>
<p><u>Measure WV-26.</u></p> <p>a. Many-stemmed dudleya caudexes and seed shall be collected from populations to be impacted. Prior to grubbing or grading (or as otherwise determined by the Project Biologist), the limits of individual populations to be impacted shall be flagged and groups of plants shall be marked with pin flags to facilitate the locating of individual plants after flowering. Seed shall be collected in late July or early August from ripened seed heads, for later propagation or hand seeding, by personnel experienced in the collection of native seed and native plant propagation. Twenty-five percent of the seeds collected will be stored with Rancho Santa Ana Botanical</p>	<p>Project Biologist</p>	<p>Prior to grubbing or grading, seed collection in late July or early August, and monitoring ongoing for three years</p> <p>a. Flagging prior to grubbing or grading; seed collection in late July/early August</p> <p>b. Before grubbing and grading</p> <p>c. For three years after plants are</p>

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure established.
<p>Gardens (RSABG) by their standard agreement. The remainder of the seed will be used to establish the dudleya population as described below.</p> <p>b. Caudexes shall be harvested for later planting, using appropriate screens or mesh and shall be conducted by individuals experienced in the salvage of many-stemmed dudleya. Where possible, caudexes will be salvaged by removing soil blocks containing marked dudleya. Both seed and collected caudexes shall be replanted and established at an appropriate site within an open space dedication area at the direction of the Project Biologist.</p> <p>c. Monitoring of the established populations shall be conducted for three years. The propagated caudexes shall be introduced (over the three-year program), using at least a 1:1 ratio. Establishment shall be considered successful if planted/seeded populations total 75 percent of the impacted populations and the population demonstrates recruitment of seedlings. If planted/seeded populations do not achieve 75 percent of the impacted populations, additional collection of seed shall be performed and additional caudexes will be propagated. If planted/seeded populations do not achieve 75 percent thresholds, further remedial measures shall be implemented as recommended by the Project Biologist.</p>		
<p><u>Measure WV-27.</u> Before entering or leaving the construction site, all construction equipment shall be inspected for evidence of invasive species and/or their seeds. Should any plants and/or seeds be detected, the equipment will be washed to ensure no invasive species and/or their seeds will be brought into or removed from the site.</p>	Contractor with assistance from Project Biologist	During construction
<p><u>Measure WV-28.</u> Prior to construction, substantial populations of invasive plant species identified on the State of California List of Noxious Weed Species and the California Exotic Pest Plant Council Exotic Pest Plants (CalEPPC) of Greatest Ecological Concern in California List adjacent to the grading limits shall be mapped.</p>	Contractor with assistance from Project Biologist	Prior to construction
<p><u>Measure WV-29.</u> The Project Biologist shall prepare an invasive species management program to be incorporated into the BRMP. The program shall discuss the invasive species within landscaping and mitigation areas to be eradicated or controlled and eradication methods, which may include mowing, hand removal, or herbicide application. Removal of invasive plant species on the State of California List of Noxious Weed Species with Pest Rating A shall be required, at the direction of the Project Biologist. Eradication, containment, or control of all invasive plant species on the State of California List of Noxious Weed Species with Pest Rating B shall be at the discretion of the</p>	Project Biologist	Prior to construction

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>Project Biologist. The program shall also address invasive species identified in the California Exotic Pest Plant Council Exotic Pest Plants of Greatest Ecological Concern in California List and methods for their control. The potential for contribution of funds to such programs as the Arundo Removal Program to assist with removal of giant reed or other species from riparian habitats such as San Juan Creek shall also be addressed. The program shall also discuss monitoring of the landscaped and mitigation areas to ensure invasive species are properly controlled or eradicated. The maintenance of the mitigation sites along the corridor will be under the supervision of the Project Biologist (Executive Order 13112, Feb. 3, 1999).</p>		
<p>Measure WV-30. Before and during construction (as appropriate), the Project Biologist shall conduct focused nocturnal and diurnal surveys within suitable habitat between February and May (a minimum of one week prior to the onset of construction) to determine the presence or absence of the western spadefoot toad in the impact area. Any western spadefoot toads found within the impact area will be relocated outside the construction area by the Project Biologist. In areas where western spadefoot toads were found, fencing or screening approximately 1.5 m (five ft) in height (with one m (three ft) buried below the surface) will be installed to prevent western spadefoot toads from entering the area after the onset of construction.</p>	Project Biologist and Contractor	Between February and May, and a minimum of one week prior to the onset of construction
<p>Measure WV-32. During grading activities, two-striped garter snakes observed within and adjacent to the impact area will be relocated outside of the construction area either upstream or downstream of the selected alternative by the Project Biologist.</p>	Project Biologist	During grading activities
<p>Measure WV-33. To minimize and offset adverse effects of the selected alternative on the San Diego cactus wren, suitable habitat for this species (as determined by the Project Biologist) shall be grubbed from the project footprint area from September to February if feasible (generally outside the breeding season for this species). The Project Biologist shall survey the suitable habitat within the areas to be grubbed one day prior to any vegetation disturbance to determine the location and numbers of San Diego cactus wrens. The Project Biologist will be on-site and present during all suitable habitat clearing and removal activities to minimize the potential for individual San Diego cactus wrens to be wounded or killed during the clearing of habitat.</p>	Project Biologist and Contractor	Between September and February in San Diego cactus wren habitat
<p>Measure WV-34. If grubbing activities between February and August (generally within the breeding season for San Diego cactus wren) are unavoidable, the following measures will be implemented:</p>	Project Biologist and Contractor	During grading activities that occur between February and August

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>a. Surveys by the Project Biologist will be conducted a minimum of three times on separate days after the initiation of the nesting season to determine the presence of San Diego cactus wrens, nest building activities, egg incubation activities, or brood rearing activities. These surveys will be conducted within the week prior to the initiation of brushing, grading, or other construction activities. One survey will be conducted the day immediately prior to the initiation of work. The USFWS will be notified in writing seven days prior to the initiation of surveys.</p> <p>b. If no nest(s), nesting behavior, or brood rearing activities are detected, work may commence. Prior to and during work activities, the Project Biologist will locate any individual San Diego cactus wrens on-site and direct operators to begin in an area away from the birds. The pattern of brushing/grubbing activities will be designed to optimize opportunities for flushed birds to be directed towards the open space areas in the vicinity of the impact area.</p> <p>c. During construction, no activity will occur within approximately 150 m (500 ft) of active nests.</p>		
<p><u>Measure WV-35.</u></p> <p>a. Prior to construction activity, the Project Biologist shall survey the construction limits for the presence of occupied raptor nests and nest burrows (for burrowing owls). Occupied raptor nests/burrows shall be mapped on the construction plans by the Project Biologist. The Project Biologist will visit the nest/burrow site at the beginning of the nesting season to verify the use of the nests/burrows for that particular year.</p> <p>b. If nesting activity begins at any nest site, then the active nest/burrow(s) will be protected as an ESA until nesting activity has ended to ensure compliance with Section 3503.5 of the CDFG Code. To protect any active nest/burrow sites, the following restrictions on construction are required between February and June (or until nests are no longer active as determined by the Project Biologist): (1) clearing limits will be established a minimum of approximately 150 m (500 ft) in any direction from raptor nests/burrows (or as otherwise determined by the Project Biologist); and (2) access and surveying will not be allowed within approximately 300 m (900 ft) of nests/burrows (or as otherwise determined by the Project Biologist).</p>	Project Biologist	Prior to construction, with restrictions on construction between February and June
<p><u>Measure WV-36.</u> Prior to construction activity, the Project Biologist shall survey the construction limits for the presence of occupied breeding coyote, bobcat, or mountain lion dens. In the event that an occupied breeding coyote,</p>	Project Biologist	Prior to construction and as specified regarding breeding seasons

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>bobcat, or mountain lion den is located within the impact area, then grading and construction operations shall be redirected temporarily around the den for a distance of approximately 150 m (500 ft) or as otherwise determined by the Project Biologist. The dens shall be resurveyed by the Project Biologist within the last month of the breeding seasons of these species to verify completion of the breeding cycle. Dens shall be removed during the non-breeding season only.</p>		
<p><u>Measure WV-37.</u> During the spring and summer (May through August) prior to the habitat removal, a qualified bat biologist shall survey all potential roosting habitat proposed for removal by the proposed construction. If a roost is found, the animals will be evicted and the resource sealed or removed so the bats cannot return and would be forced to find alternative roost sites. Tree removal shall be conducted between September and November to avoid hibernating bats (December through February) and maternity season (May through August) if feasible.</p>	Project Biologist	Survey during spring and summer, and tree removal between September and November
<p><u>Measure WV-38.</u> Impacts to floodplain sage scrub, riparian herb, and other sub-types within the Vernal Pools, Seeps, and Wet Meadows and Marsh plant communities shall be mitigated at a 1:1 ratio or other ratio that compensates for functions and values. Mitigation shall consist of creating the above mentioned community types in the approximate proportions in which they currently exist within the impact area or as otherwise required by the resource agencies. Creation areas shall occur within dedicated open space areas including, but not limited to, the Upper Chiquita Canyon Conservation Easement area. The creation program for the above areas shall be included in the BRMP and shall include the following measures.</p> <ul style="list-style-type: none"> • Site analysis for appropriate soils and hydrology. • Site preparation specifications based on site analysis, including but not limited to grading, and weeding. • Soil and plant material salvage from impact areas, as appropriate to the timing of impact and restoration as well as the location of restoration sites. • Specifications for plant and seed material appropriate to the locality of the mitigation site. • Specifications for site maintenance to establish the habitats, including but not limited to weeding and temporary irrigation. <p>Creation areas shall be considered successful if the following standards are achieved:</p>	Project Biologist	Prior to construction, for a minimum of five years and/or until success standards are met

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<ul style="list-style-type: none"> • The site does not require substantial maintenance for at least two consecutive years during the monitoring period. • The site must exhibit evidence of natural recruitment of native species, including plant reproduction and/or setting of seeds. • Absolute percent cover of native species is comparable to the absolute cover of native species at an appropriate reference site within an 80 percent confidence limit. • An index of species diversity of the restored and/or created habitat areas is statistically comparable to an appropriate reference site within an 80 percent confidence limit. <p>Monitoring shall be conducted for five years (or less if success criteria are met as designated above earlier) to ensure successful establishment of hydrophytic vegetation within the restored/created areas by wetland species. If success standards are not met, remedial measures, seeding, or introduction of container stock shall be implemented as directed by the Project Biologist.</p>		
<p>Measure WV-39. TCA will mitigate impacts to riparian scrub, woodland, and forest communities by replacing, creating, restoring, or preserving (1) 0.40 ha (one ac) of the identified resource for every 0.40 ha (one ac) of the applicable resource impacted by the project or other ratio that compensates for functions and values, or (2) such other mitigation requirement that is necessary to meet the regulatory standards of an applicable state or federal regulatory program. Mitigation areas shall occur within dedicated open space areas including, but not limited to, the Upper Chiquita Canyon Conservation Easement area as determined by the Project Biologist. The restoration program shall be detailed with the BRMP.</p> <p>Prior to restoration of these communities, hydrological testing and monitoring of the creation site shall be conducted to determine that sufficient hydrology exists to support the community. If necessary, a temporary irrigation program shall be incorporated into the mitigation design to ensure successful establishment of the community.</p> <p>The following performance standards shall apply for the restoration of these areas (except for southern coast live oak riparian forest). Restoration shall be considered successful if:</p> <ul style="list-style-type: none"> • The site does not require substantial maintenance for at least two 	TCA and Project Biologist	For a minimum of five years and until success standards are met

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>consecutive years during the monitoring period.</p> <ul style="list-style-type: none"> • The site must exhibit evidence of natural recruitment of native species, including plant reproduction and/or setting of seeds. • Absolute percent cover of native upper and mid canopy species is 70 percent in forest scrub communities and five percent in woodland communities. • An index of species diversity of the restored areas is statistically comparable to an appropriate reference site within an 80 percent confidence limit. <p>For southern coast live oak riparian forest, the following standards shall apply:</p> <ul style="list-style-type: none"> • The site does not require substantial maintenance and meets the success criteria established for this community for at least two consecutive years during the monitoring period. • The site must exhibit evidence of natural recruitment of native species, including plant reproduction and/or setting of seeds. • Absolute percent cover of native upper and mid canopy species is 50 percent, with five percent cover from oak trees. • An index of species diversity of the restored areas is statistically comparable to an appropriate reference site within an 80 percent confidence limit. <p>Monitoring shall be conducted for a minimum of five years to ensure successful establishment of the restored areas. If success standards are not met, remedial measures including introduction of additional container stock and adjusting of irrigation shall be implemented as directed by the Project Biologist.</p>		
<p>Measure WV-40. Impacts to open water shall be mitigated at a 1:1 ratio by the creation of wetlands and impounded features to be incorporated into the herbaceous riparian habitat. The open water mitigation areas shall be located at a site determined by the Project Biologist to have hydrology sufficient to support the desired open water feature. Appropriate hydrological and soils testing shall be performed to ensure that the created open water area function properly. Creation of open water areas shall be maintained as part of the herbaceous riparian habitat restoration.</p>	Project Biologist	At the time of habitat restoration and ongoing
<p>Mitigation Measures Related to Threatened and Endangered Species</p>		
<p>Measure TE-1. Prior to construction, the TCA shall designate a Project Biologist responsible for overseeing biological monitoring, regulatory compliance, and restoration activities associated with construction of the</p>	TCA	Prior to construction

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
selected alternative in accordance with the adopted mitigation measures and applicable law.		
<u>Measure TE-2.</u> Mitigation measure TE-2 is the same as mitigation measure WV-2 in Section 8.11. See mitigation measure WV-2.	See mitigation measure WV-2 in Section 8.11	See mitigation measure WV-2 in Section 8.11
<p><u>Measure TE-3.</u> A Biological Resources Management Plan (BRMP) shall be prepared prior to construction. The BRMP shall provide specific design and implementation features of the biological resources mitigation measures outlined in the resource agency approval documents. Issues to be discussed in the BRMP shall include, but are not limited to, resource avoidance, minimization, and restoration guidelines, performance standards, maintenance criteria, and monitoring requirements. The Draft BRMP shall be submitted to the USFWS, NMFS, CDFG, USACOE, RWQCB, FHWA and Caltrans for review and approval.</p> <p>The primary goals of the BRMP are to ensure that (1) the long-term perpetuation of the existing diversity of habitats in the project area and adjacent urban interface zones and minimize offsite or indirect effects; (2) the project is not likely to jeopardize the continued existence of any federally listed or state-listed endangered or threatened species; and (3) impacts to endangered and threatened species are minimized and mitigated to the maximum extent practicable. The BRMP shall contain at a minimum specific construction monitoring programs for thread-leaved brodiaea, arroyo toad, coastal California gnatcatcher, least Bell's vireo, and Pacific pocket mouse.</p>	TCA	Prior to construction
<u>Measure TE-4.</u> Mitigation measure TE-4 is the same as mitigation measure WV-5 in Section 8.11. See mitigation measure WV-5.	See mitigation measure WV-5 in Section 8.11	See mitigation measure WV-5 in Section 8.11
<p><u>Measure TE-5.</u> Chain-link, wire mesh with metal poles, or similar fencing of at least 2.1 m (seven ft) in height will be erected on both sides of the selected alternative from the underpass entrance to a distance of at least 1.0 km (0.62 mi) along the corridor to "funnel" wildlife to the underpass area and to minimize wildlife attempts to cross the roadway surface. Fence height up to three m (10 ft) in height will be used in areas deemed appropriate by the Project Biologist, TCA, USFWS, FHWA and Caltrans. In addition, in areas known to support the arroyo toad, a permanent mesh fence shall be installed at the base of the chain-link fence for at least 1.0 km (0.62 mi) to keep the toads from entering onto the roadway surface.</p>	Project Biologist, TCA, USFWS, FHWA and Caltrans	During final design and construction

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>The width and the height of the wildlife bridges specified in this mitigation measure are those provided by Caltrans as minimum standards. This approach is appropriate and such detail can be provided during further discussions and only for the selected project. To demonstrate the success of this approach, the TCA has monitored seven wildlife undercrossings during the fall and spring of each year since 1999. The wildlife undercrossings are along the Foothill and Eastern Transportation Corridors and consist of bridges as well as large diameter culverts. Methods used to document the presence and diversity of wildlife using the undercrossings include scent stations, spotlight surveys, general scat surveys, and direct observations. The data have shown that there is a considerable amount of wildlife within the study area using the undercrossings. The wildlife observed using the undercrossings includes mountain lions, bobcats, coyotes, gray foxes, and mule deer. This usage demonstrates the overall success of the undercrossings in allowing wildlife continued movement throughout the region. In summary, preliminary results indicate that wildlife is continuing to use the undercrossings along the Toll Roads.</p>		
<p><u>Measure TE-6.</u> Prior to construction of the selected alternative, focused sensitive plant species surveys shall be conducted to determine the distribution of sensitive plants within the impact area of the selected alternative so appropriate avoidance, and seed collection and salvage measures for thread-leaved brodiaea can be implemented. This measure will ensure that the biologist obtains the current onsite conditions, just prior to construction, to maximize avoidance. Surveys shall be conducted from March through June which is the blooming period for this species. Locations of thread-leaved brodiaea species shall be mapped and shown on construction drawings and identified as ESAs. During final design, temporary access roads will be sited with the approval of the Project Biologist so as to avoid or minimize impacts to sensitive plant populations.</p>	Project Biologist	During final design and between March and June, prior to construction
<p><u>Measure TE-7.</u> a. Prior to construction (e.g., clearing, grubbing or grading), focused surveys for the thread-leaved brodiaea shall be conducted during the flowering period for this species (approximately March through June). The locations of plants identified within the disturbance limits shall be recorded with a Global Positioning System (GPS) unit with sub-meter accuracy. The soils containing thread-leaved brodiaea shall be tested to determine soil texture,</p>	Project Biologist	Between approximately March and June, prior to construction. Monitoring for five years post-relocation

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>and organic matter, and transported to a native plant nursery for germination and propagation.</p> <p>b. Prior to construction, soil containing thread-leaved brodiaea corms within the impact area shall be collected by personnel experienced in the salvage of corms. Areas of soil 0.6 m by one m by 0.6 m (two ft by three ft by two ft) deep or one m by 1.3 m by 0.6 m (three ft by four ft by two ft) deep shall be collected and transported for placement in an appropriate translocation site selected by the Project Biologist. The translocation site shall be located in a conservation area within an open space dedication area within the region and shall have similar soils, aspect, slope, and hydrology to the donor site (i.e., the site from which thread-leaved brodiaea corms were collected).</p> <p>c. Relocation success will be monitored for five years. The number of relocated plants that will emerge in any one year is variable and will depend on seasonal rainfall. Relocation will be considered successful when 10 percent of the relocated population emerges and sets viable seed in any monitoring year. The success criteria may vary as determined by the Project Biologist in consultation with botanists and USFWS staff with recent experience in brodiaea transplantation methodologies in the region.</p>		
<p>Measure TE-8. To avoid impacting vernal marsh FEVM 16 and Riverside fairy shrimp from construction activities, this area shall be flagged and mapped. All construction roads and other construction related activities shall be redirected around this feature. The watershed which supplies this marsh shall also be flagged for avoidance and enclosed with silt fencing per the direction of the Project Biologist to ensure that erosion/ground disturbance does not compromise water quality within the pool. Silt fencing shall remain intact for the duration of construction and until all disturbed soils have been stabilized. Following removal of the silt fencing, fiber rolls, or similar erosion control devices shall be placed around the pool to filter incoming runoff and reduce the potential for siltation or water turbidity until all earth moving activities have ceased and landscaping installed. See also RMP for all mitigation measures.</p>		
<p>Measure TE-9. During final design, the TCA, as described in the RMP, shall design, construct, and/or maintain any structure/culvert placed within a stream where endangered or threatened fish do/may occur such that it does not constitute a barrier to upstream or downstream movement of aquatic life, or cause an avoidance reaction by fish that impedes their upstream or downstream movement. This includes, but is not limited to, the supply of water at an</p>	TCA	During final design

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
appropriate depth for fish migration.		
<p>Measure TE-10. An Arroyo Toad Resource Management Plan (ATRMP) will be prepared. The ATRMP will be incorporated into the BRMP, and action items identified in the plan will be implemented by TCA and monitored by the Project Biologist. The plan shall include measures detailing how the impact area will be surrounded with a silt fence enclosure, and how arroyo toads will be removed and relocated from the construction impact area during the breeding season (when they are detectable by vocalizations) and placed in suitable habitat either upstream or downstream of the selected alternative during construction. The ATRMP will identify areas of collection, suitable areas for temporary housing, and restoration guidelines to be in place prior to release of toads to their original location. The plan shall be submitted to the USFWS to the extent required by such agency. The locations of areas known to support arroyo toads shall be identified in the ATRMP and on the ESA maps to comply with the requirements of the biological opinion.</p>	Project Biologist, with approval by USFWS	Prior to construction
<p>Measure TE-11. Prior to initiating any ground-disturbing activities in occupied/suitable habitats, or habitats proximal to suitable or occupied habitats for arroyo toad, exclusionary fencing shall be installed around the perimeter of the construction area. Fencing or screening approximately 60 cm (two ft) in height (30 cm [one ft] of which will be buried below the surface) shall be installed to prevent arroyo toads from entering the area after the onset of construction. The fencing will be installed at least 14 days prior to the initiation of work and must be made of a material appropriate to preclude any arroyo toads from entering the construction area. Fencing will be removed each winter during construction and at the end of project construction. Vehicle use will be restricted within areas known to support populations of the arroyo toad that are shown on the ESA maps.</p>	Project Biologist	Prior to initiating any ground-disturbing activities
<p>Measure TE-12.</p> <p>a. The Project Biologist shall conduct three focused arroyo toad surveys within the fenced construction site for arroyo toads a minimum of 14 nights prior to initiating project construction. If climatic conditions are not appropriate for arroyo toad movement during the surveys, the Project Biologist may attempt to illicit a response from the arroyo toads, during nights with temperatures of 13°C (55°F) or greater, by spraying the project area with water to simulate a rain event. During construction, arroyo toad surveys will be performed a minimum of once per week and on all nights where the combination of rain/humidity and temperature would increase the</p>	Project Biologist	Fourteen nights prior to initiating project construction and during construction

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>movement of arroyo toads.</p> <p>b. If arroyo toads are found with the construction side of the exclusionary fencing, arroyo toads will be removed by the Project Biologist and relocated from the construction impact area and placed in suitable habitat either upstream or downstream of the construction area as outlined in the Arroyo Toad Resource Management Plan.</p>		
<p><u>Measure TE-13.</u> The Contractor shall locate staging areas for construction equipment outside of areas within the jurisdiction of the USACOE or CDFG known to support arroyo toad to minimize impacts to sandy creek benches that may provide aestivating habitat for the arroyo toad to avoid taking any individuals.</p>	Contractor, with oversight by Project Biologist	Prior to and during construction
<p><u>Measure TE-14.</u> When conducting construction and/or other ground-disturbing activities in arroyo toad-occupied habitats or in adjacent upland areas proximal to known arroyo toad habitats, the Contractor shall cover all grubbing spoils or other grading debris with plastic sheeting to prevent arroyo toads from opportunistically burrowing in these exposed and friable soil piles. This sheeting must be placed on the soil piles before sunset and shall remain on (during nighttime hours) for the duration of the construction/ground disturbing activities. The areas where these measures must be implemented shall be determined by the Project Biologist in coordination with the USFWS. If the sheeting does not remain in place due to unforeseen circumstances, (inclement weather or other disturbances) a biologist will monitor the soil piles for the arroyo toad. Any arroyo toads found within the soil piles will be removed and relocated as outlined in the Arroyo Toad Resource Management Plan</p>	Contractor, with oversight by Project Biologist	When conducting construction and/or other ground-disturbing activities
<p><u>Measure TE-15.</u> The Contractor shall not drive upon construction roads or other roads/surfaces adjacent to arroyo toad occupied habitat after sunset. If the site must be accessed, a biologist permitted to handle arroyo toad must be present in the vehicle to identify any individuals on the road and the vehicle shall not exceed a speed of 16 km per hour (10 mi per hour) within these areas.</p>	Contractor and Project Biologist	After sunset during grading and construction
<p><u>Measure TE-16.</u> Prior to construction, the Project Biologist shall document the area of pools and gravel bars within the temporary disturbance areas of creeks occupied by the Arroyo Toad. At the conclusion of construction, the TCA shall construct artificial pools and gravel bars within these temporary disturbance areas. The artificial pools and gravel bars shall provide potential breeding and aestivating habitat for arroyo toad. These areas will be identified and established by the Project Biologist in the BRMP. The artificial pools and</p>	TCA and Project Biologist	At the conclusion of construction

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>gravel bars shall be equal to or greater in size than those areas impacted by project implementation. Because of the natural flooding and scouring conditions of the creeks within the study area, no maintenance of these areas will be required. The construction of these features shall not preclude required Caltrans bridge maintenance. Plans shall be submitted to USFWS for review and approval, to the extent required by such agency, prior to implementation.</p>		
<p><u>Measure TE-17.</u> Prior to the arroyo toads' re-establishment to their original locations, specific activities to enhance their habitat and improve their potential for re-occupation will be implemented. These measures include the removal (up to 15 days in advance of the re-establishment), to the extent practicable, of predatory species such as bullfrogs, western mosquito fish, yellow bullheads, bluegill, and additional predatory invertebrates, amphibians, and introduced fish species. Plans shall be submitted to USFWS for review and approval prior to implementation to determine compliance with the biological opinion.</p>	<p>Project Biologist, with approval by USFWS</p>	<p>Prior to arroyo toad re-establishment</p>
<p><u>Measure TE-18.</u> To minimize and offset adverse effects of the selected alternative on the coastal California gnatcatcher, habitat suitable for this species (as determined by the Project Biologist) shall be grubbed from the project footprint area from September to February if feasible (generally outside the breeding season for these species). The Project Biologist shall survey the suitable habitat within the areas to be grubbed one day prior to any vegetation disturbance to determine the location and numbers of coastal California gnatcatchers. The Project Biologist will be on-site and present during all suitable habitat clearing and removal activities to minimize the potential for individual coastal California gnatcatchers to be wounded or killed during the clearing of habitat.</p>	<p>Contractor and Project Biologist</p>	<p>From September to February (if feasible), one day prior to any vegetation disturbance and during all suitable habitat clearing and removal activities</p>
<p><u>Measure TE-19.</u> If grubbing activities are unavoidable during the coastal California gnatcatcher breeding season, which is between February and August, the following measures will be implemented:</p> <p>Surveys by the Project Biologist will be conducted a minimum of three times on separate days after the initiation of the nesting season to determine the presence of coastal California gnatcatchers, nest building activities, egg incubation activities, or brood rearing activities. These surveys will be conducted within the week prior to the initiation of brushing, grading, or other construction activities. One survey will be conducted the day immediately prior to the initiation of work. The USFWS will be notified in writing seven days prior to the initiation of surveys.</p>	<p>Project Biologist</p>	<p>Between February and August, if needed</p>

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>If no nest(s), nesting behavior, or brood rearing activities are detected, work may commence. Prior to and during work activities, the Project Biologist will locate any individual coastal California gnatcatchers on-site and direct operators to begin in an area away from the birds. The pattern of brushing/grubbing activities will be designed to optimize opportunities for flushed birds to be directed towards the open space areas in the vicinity of the impact area.</p> <p>During construction, no activity will occur within approximately 150 m (500 ft) of active nests.</p>		
<p><u>Measure TE-23.</u> During final project design, an undercrossing shall be provided in the vicinity of the San Mateo North population of the Pacific pocket mouse for any alternative selected that occurs within this area. The undercrossing shall allow for potential movement of Pacific pocket mice under the alignment. The exact placement and design of the undercrossing shall be determined by the Project Biologist, in coordination with MCB Camp Pendleton and with USFWS during the Section 7 consultation.</p>	<p>Project Biologist, in consultation with MCB Camp Pendleton and USFWS</p>	<p>During final project design</p>
<p><u>Measure TE-24.</u> Prior to the initiation of construction in areas within or proximal to known sites occupied by the Pacific pocket mouse, a Pacific Pocket Mouse Resource Management Plan (PPMRMP) shall be prepared and submitted to the USFWS for review to determine compliance with the biological opinion and incorporated into the BRMP. This plan shall identify the strategies available for minimizing impacts to comply with the no jeopardy standard of Section 7(a)2 of the Federal Endangered Species Act.</p> <p>The PPMRMP shall identify conservation measures. These conservation measures will be consistent with the Biological opinion issued by the USFWS. Potential conservation measures may include:</p> <p>a. Temporary construction measures—including temporary fencing:</p> <ul style="list-style-type: none"> • Invasive species control • Habitat management and enhancement • Predator control 	<p>Project Biologist with approval by USFWS</p>	<p>Prior to initiation of construction</p>

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<ul style="list-style-type: none"> • Control of public access • PPM population monitoring <p>Implementation of these conservation measures will be completed in conjunction with USFWS and the landowner, Marine Corp, Camp Pendleton.</p> <p>b. Project Design Features—PPM</p> <ul style="list-style-type: none"> • Barriers along the boundary • Minimization of roadway lighting • Minimization of fire risk 		
<p><u>Measure TE-25.</u> Mitigation measure TE-25 is the same as mitigation measure WV-11 in Section 8.11. See mitigation measure WV-11.</p>	See mitigation measure WV-11 in Section 8.11.	See mitigation measure WV-11 in Section 8.11.
<p><u>Measure TE-26.</u> Mitigation measure TE-26 is the same as mitigation measure WV-12 in Section 8.11. See mitigation measure WV-11.</p>	See mitigation measure WV-12 in Section 8.11.	See mitigation measure WV-12 in Section 8.11.
<p><u>Measure TE-27.</u> Mitigation measure TE-27 is the same as mitigation measure WV-38 in Section 8.11. See mitigation measure WV-38.</p>	See mitigation measure WV-38 in Section 8.11.	See mitigation measure WV-38 in Section 8.11.
<p><u>Measure TE-28.</u> Mitigation measure TE-28 is addressed through mitigation measure WV-39 in Section 8.11 and a separate measure is not necessary. See mitigation measure WV-39.</p>	See mitigation measure WV-39 in Section 8.11	See mitigation measure WV-39 in Section 8.11
<p><u>Measure TE-29.</u> Mitigation measure TE-29 is the same as mitigation measure WV-40 in Section 8.11. See mitigation measure WV-40.</p>	See mitigation measure WV-40 in Section 8.11	See mitigation measure WV-40 in Section 8.11
<p>Mitigation Measures Related to Wild and Scenic Rivers</p>		
<p>No mitigation required.</p>	N/A	N/A
<p>Mitigation Measures Related to Coastal Barriers</p>		
<p>No mitigation required</p>	N/A	N/A
<p>Mitigation Measures Related to Coastal Zone</p>		
<p>Mitigation measures for impacts in the Coastal Zone are found in the following topical areas for which coastal zone permitting is concerned: biological, cultural, paleontological and visual resources. Refer to Sections 8.10 (Mitigation Measures Related to Wetlands and Waters of the United States),</p>	Refer to Sections 8.10 (Mitigation Measures Related to Wetlands and Waters of the	Refer to Sections 8.10 (Mitigation Measures Related to Wetlands and Waters of the United States), 8.12 (Mitigation Measures Related to

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>8.12 (Mitigation Measures Related to Threatened and Endangered Species), 8.16 (Mitigation Measures Related to Historic and Archaeological Resources), 8.18 (Mitigation Measures Related to Visual Resources) and 8.23 (Mitigation Measures Related to Paleontological Resources) for a description of these measures.</p>	<p>United States), 8.12 (Mitigation Measures Related to Threatened and Endangered Species), 8.16 (Mitigation Measures Related to Historic and Archaeological Resources), 8.18 (Mitigation Measures Related to Visual Resources) and 8.23 (Mitigation Measures Related to Paleontological Resources)</p>	<p>Threatened and Endangered Species), 8.16 (Mitigation Measures Related to Historic and Archaeological Resources), 8.18 (Mitigation Measures Related to Visual Resources) and 8.23 (Mitigation Measures Related to Paleontological Resources)</p>
<p>Mitigation Measures Related to Historic and Archeological Resources</p>		
<p><u>Measure AR-1.</u> Prior to the start of construction activity, a qualified archaeologist shall be retained by the TCA to perform subsurface test level investigation and surface collection for all archaeological sites that have not had formal determinations of eligibility for listing on the NRHP. The test level report evaluating the site shall include discussion of significance (scientific data potential), integrity (location, physical characteristics, and condition), mitigation recommendations, and cost estimates. Final mitigation shall be carried out based on the report recommendations, input by FHWA and SHPO, and a determination as to the site's disposition by the TCA with concurrence of the FHWA. Possible recommendations made by a qualified archaeologist include, but are not limited to, preservation, data recovery, or no mitigation necessary. In addition, TCA shall retain a qualified Native American monitor to be present during the evaluation excavations for sites within the project area. Preference will be given to experienced Native American monitors who are members of the local tribal groups identified as having cultural ties to the study area.</p>	<p>TCA and qualified archaeologist</p>	<p>Prior to the commencement of project grading</p>
<p><u>Measure AR-2.</u> In conjunction with the final design, the TCA shall retain a qualified archaeologist to complete a suitable historic property treatment plan for all eligible cultural resources that will be impacted by the SOCTIIP. A final report of the data recovery operation shall be submitted to the TCA, Caltrans</p>	<p>TCA</p>	<p>In conjunction with the final design and prior to commencement of project grading</p>

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>and FHWA prior to any grading in the archaeological site areas. In addition, TCA shall retain a qualified Native American monitor to be present during the treatment program for sites within the project area. Preference will be given to experienced Native American monitors who are members of the local tribal groups identified as having cultural ties to the study area.</p>		
<p><u>Measure AR-3.</u> Prior to the start of construction activity, the TCA shall retain a qualified archaeologist. The archaeologist shall establish procedures (monitoring plan) for archaeological resource surveillance, and procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the cultural resources as appropriate. The archaeologist shall also be present at the pregrading conference to explain the established procedures based on a preapproved monitoring plan. If additional or unexpected archaeological resources are discovered, a qualified archaeologist shall determine appropriate actions, in cooperation with the TCA, for testing and/or data recovery. The archaeologist shall submit a follow-up report to the TCA that shall include the period of inspection, an analysis of any artifacts found, the results of any testing or data recovery, and the present repository of the artifacts. In addition, TCA shall retain a qualified Native American monitor to be present during ground disturbing construction activities within the project area. Preference will be given to experienced Native American monitors who are members of the local tribal groups identified as having cultural ties to the study area.</p>	TCA and qualified archaeologist	Prior to initiation of grading and ongoing during grading activities
<p><u>Measure AR-4.</u> In conjunction with the final design, the TCA will investigate various design features including options for reversibility of design, i.e., avoidance of core areas, minimization of cut, maximization of fill, bridge structure on columns, etc., in the vicinity of the Village of Panhe (within the San Mateo Archaeological National Register District) could assist in minimizing impacts to the District as a result of the selected Alternative. If it is determined that a design feature can feasibly assist in minimizing impacts to the District, the TCA will incorporate this feature in the final design for the selected alternative.</p>	TCA	At the time of final design
<p><u>Measure HR-1.</u> Prior to the start of construction activity (project related demolition), the TCA or other implementing agency/agencies shall retain a qualified architectural historian/historical architect to record National Register of Historic Places listed or eligible buildings, structures, and objects that will be removed by the Alternative, according to Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) standards. The</p>		

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>documentation will be performed in consultation with the National Park Service (NPS), and the State Office of Historic Preservation (OHP). HABS/HAER documents utilize the Secretary of the Interior's <i>Standards for Architectural and Engineering Documentation</i>, which is linked to the Secretary's <i>Guidelines for Architectural and Engineering Documentation</i> and the HABS/HAER Procedures Manual which provide more specific guidance and technical information. The level of documentation for each individual resource or district will be determined in consultation with NPS, but may include:</p> <p>Drawings: a full set of measured drawings depicting existing and historic conditions.</p> <p>Photographs: photographs with large format negatives of exterior and interior views, photocopies with large format negatives of select existing drawings or historic views where available.</p> <p>Written data: history and description. HABS/HAER recordation for each resource should update and augment any previously completed documentation of the resource. Documentation should be completed within 180 days of the FHWA approval of the SOCTIP project. The product should be submitted to the NPS for review and addition to the HABS/HAER collection maintained by the Library of Congress. Copies of the document should also be provided to local institutions or agencies (planning/community development departments, public libraries, historical societies) and made available for public review.</p>		
<p><u>Measure HR-2.</u> The TCA or other implementing agency/agencies in consultation with local agencies and the SHPO, shall create a permanent display <u>for historic buildings</u> within a local facility readily accessible to the public, (such as such as public libraries, museums, or schools) that will interpret the history and construction of the resource and its historical context. The interpretive display may consist of durable panels and should include items such as: reproductions of historical photographs, original construction drawings, or other drawings, drawings and photographs that are part of HABS/HAER documentation completed as part of the mitigation measures, and explanatory text. Items such as reproductions or actual architectural elements, discarded hardware, or other items used in the original construction may also be incorporated, as may oral histories collected from individuals associated with</p>		

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
the resource in text, audio, and/or video format. The interpretive display should be completed and in place prior to initiation of operations on any part of the selected corridor.		
<u>Measure HR-3.</u> The TCA or other implementing agency/agencies in consultation with the local agencies and SHPO, shall create an internet website on the worldwide web that will interpret the resource impacted by the proposed construction. The website should include written explanatory text discussing the history and context of the resource, historic and contemporary photographs of the resource, drawings and/or diagrams as appropriate. It may also include oral histories collected from individuals associated with the resource, in text, audio, and/or streaming video format. The website may be a stand alone site, or linked to existing websites maintained by local or county historical organizations. The interpretive website should be completed and accessible prior to initiation of operations on the selected corridor.		
<u>Measure HR-4.</u> In the event that design of the project requires the demolition of any Federal, State, or locally listed or eligible historical resource, the TCA or other implementing agency/agencies shall, with the approval of the responsible municipal agency, salvage any historical elements or fittings of the structure(s) which may be useful for reuse or display prior to the commencement of any alteration, grading, or demolition of the site.		
Mitigation Measures Related to Hazardous Materials and Hazardous Waste Sites		
<u>Measure HM-1: Testing For Contaminated Groundwater.</u> Groundwater testing for the presence of pesticides, nitrates, metals and petroleum hydrocarbons will be required by the Regional Water Quality Control Board (RWQCB) prior to construction in all areas where excavation may extend into groundwater based on final design criteria. All wastewater generated during construction will meet all applicable requirements of the RWQCB prior to disposal.	TCA, in accordance with RWQCB requirements	Prior to construction in areas where excavation may extend into groundwater
<u>Measure HM-2: Aerially Deposited Lead.</u> In areas immediately adjacent to existing roads proposed for construction (I-5, arterials), soil samples will be collected and analyzed for lead concentrations during final design, consistent with "Lead Testing Recommendations for Districts with Aerially Deposited Lead (ADL) Variance" (Caltrans 2001), "Invoking the Aerially Deposited Lead Variance" (Caltrans, no date), DTSC "Variance 00-H-VAR-07," and Standard Special Provision SSP 19-900, S5-740. If lead-affected soil is found, the results/conclusions will be included in the Site Investigation Report, the Standard Special Provisions (SSP) and the Material Information Handout	TCA	During final design

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>(MIH). The SSP and MIH will be incorporated in design specifications and will include measures to safeguard public health before and during construction. Depending on the concentrations and volumes encountered, excavation and disposal of lead-impacted soil may be required. If such excavation is indicated, procedures for handling and disposal will be included in the design specifications. Soil contaminated with ADL will be removed and disposed of, in concurrence with the variance issued to the California Department of Transportation (Caltrans) by the California Department of Toxic Substances Control (DTSC). This material may be reused for embankment fill, retaining wall backfill and/or capped with an appropriate amount of clean fill material. Specifically, DTSC granted Caltrans a variance in 2000 to allow for the use of some lead contaminated soils for fill and backfill during construction of freeway improvements, provided that Caltrans' handling and use of those soils are consistent with the conditions, limitation and requirements described in that variance. A copy of that variance is available for review at the Caltrans District 12 office. This variance is valid through September 22, 2005 per Caltrans and will need to be renewed. It is anticipated that all of the lead contaminated soil in the SOCTIIP study area affected by the Alternatives would be used during the construction of the proposed project. Although there is not expected to be the need to remove and dispose of any lead contaminated soil off site during construction, any excess contaminated soil would be disposed of consistent with all applicable federal, state and local regulations</p>		
<p><u>Measure HM-3: Agricultural Lands.</u> Prior to grading in agricultural areas, a soil sampling plan and a worker health and safety plan will be prepared and implemented to identify areas of chemically affected soils to minimize the risk of exposure to worker safety during construction. The soil sampling plan will include appropriate sampling criteria for screening excavated soils by profiling for reuse or disposal, as appropriate. Surface soil samples within the disturbance limits will be collected and analyzed for pesticide and herbicide residues. If elevated residue levels are detected, a Risk Management Plan (RMP) for the impacted soil will be developed and implemented during construction.</p>	TCA and Contractor	Prior to grading in agricultural areas and ongoing during project
<p><u>Measure HM-4: Abandoned Oils Wells or Test Borings.</u> The abandoned oil wells and test borings will be positively located and any remaining components (such as steel surface casings) will be removed before grading. In the event that an undocumented oil well or test boring is encountered during construction of any SOCTIIP Alternative, reabandonment of the well or boring will be</p>	Geotechnical engineer and/or geologist	Prior to project grading

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
implemented to comply with applicable California Department of Oil and Gas (CDOG) requirements.		
Measure HM-5: Asbestos Containing Building Materials. Consistent with the requirements of the South Coast Air Quality Management District (SCAQMD), asbestos sampling and notification will be implemented prior to any demolition or renovation of existing bridges, road structures or buildings. All asbestos contain building waste materials will be properly handled and disposed of consistent with all applicable federal, state and local regulations. Formal notification to SCAQMD will be made at least 10 days before any demolition work, regardless of whether or not asbestos is known to be present.	TCA and Contractor	Prior to demolition or renovation of existing bridges, road structures or buildings
Measure HM-6: Hazardous Materials in Highway Infrastructure. If any existing thermoplastic or painted traffic stripes on existing roads are proposed for removal, testing of those stripes will be performed prior to construction to assess the level of lead and chromium. The testing will identify specific actions that will be implemented to safely remove and dispose of these stripes. It is also possible that some components of bridges or other highway infrastructure may include asbestos-containing materials (ACMs). Building materials in all structures slated for demolition will be surveyed for asbestos content before demolition begins and any materials found to be ACMS will be removed (abated) before demolition, as described in measure HM-5.	TCA and Contractor	Prior to construction
Measure HM-7: Construction Related Hazardous Materials. All construction activities will be required to comply with existing federal, state and local regulations regarding the handling, use, storage and disposal of hazardous materials, including specific regulations on response in the event of accidental release.	TCA and Contractor	Ongoing during construction
Measure HM-8: Hazardous Materials Associated with Existing Utilities. If leakage or damage from existing utilities is identified during construction, appropriate containment and remedial measures will be implemented, as necessary, in consultation with the affected utility provider and in compliance with existing local, state and federal regulations.	TCA and Contractor and affected utility	Ongoing during construction
Measure HM-9: Alignment Specific Database Review. During final design, an updated regulatory database report will be obtained and regulatory records for identified sites of concern, such as leaking underground storage tank locations, will be reviewed. The intent of obtaining and reviewing this updated information will be to evaluate changes in, or the progress of, ongoing monitoring and remediation activities at those properties within or immediately adjacent to the disturbance limits for the selected Alternative. The results of	TCA and Contractor	During final design

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
this additional database and records review will be used in developing the final construction plans and schedules.		
<p>Measure HM-10: Underground Storage Tanks. The removal of underground storage tanks, if any are affected, will be coordinated by the facility tenant or property owner (which could be the current owner, the TCA, Caltrans or the applicable local jurisdiction), and regulatory closure would be directed and approved by the applicable local oversight regulatory agency. These local oversight regulatory agencies may include the Orange County Health Care Agency, San Diego Hazardous Materials Management District and/or the San Diego and/or Santa Ana Regional Water Quality Control Boards (RWQCBs). Appropriate mitigation will include monitoring the progress of UST closure activities through periodically updating the regulatory database review.</p>		
<p>Measure HM-11: Prima Deshecha Sanitary Landfill. Measure HM-11 is not applicable to the Preferred Alternative.</p>	N/A	N/A
<p>Measure HM-12: Hazardous Materials Sites. During final design, existing businesses within the disturbance limits will be evaluated related to hazardous materials concerns to identify areas where soil sampling is warranted. Based on this reevaluation, subsurface sampling may be conducted to evaluate the presence of previous chemical releases associated with these types of land uses. Identified contamination will be remediated prior to or during construction of the selected Alternative. The right-of-way acquisition process will specifically address the need for hazardous materials remediation. Remediation, consistent with regulatory requirements and standards, will fully mitigate adverse impacts associated with existing hazardous materials or wastes sites on property acquired for the selected Alternative.</p>	TCA and Contractor	During final design and prior to, or during, construction
<p>Measure HM-13: Camp Pendleton. The Department of the Navy (DON) will be consulted and a review of current United States Environmental Protection Agency (EPA) files will be conducted during final design to evaluate whether National Priorities List (NPL) records indicate that hazardous materials releases have occurred beneath the northwestern part of the Base, which may impact the SOCTIIP build Alternative. Current regulatory records pertaining to the integrity of the USTs and associated piping at the Base gas station will be reviewed. In the event that the regulatory files lack records of monitoring or UST integrity test results, subsurface sampling activities will be conducted, including confirmation soil sampling conducted within the disturbance limits of the build Alternative. Evaluation of potentially impacted or environmentally impaired properties will be performed prior to acquisition in order to determine</p>	TCA and Contractor, in consultation with DON	During final design and prior to acquisition

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
the degree of environmental risk and liability for both the buyer and seller.		
<u>Measure HM-14: Camp Pendleton.</u> The right-of-way easement granted by the DON to the TCA (for a non-corridor Alternative) shall contain the following provisions: 1) procedures for control and manifesting of hazardous waste generated by construction or maintenance activities; 2) Assignment of responsibility for hazardous waste management, spill accountability, and hazardous waste disposal (including manifesting); 3) The EPA identification (ID) number to be used to manifest hazardous wastes; 4) Responsibility for acquisition of any required health permits; 5) Procedures for management of HW stored on Camp Pendleton property; 6) Assignment of responsibility for any Notices of Violation or other regulatory enforcement actions occurring within the Alternative right-of-way during construction or operation of the SOCTIIP project.	DON	Prior to acceptance of right-of-way easement
<u>Measure HM-15: TRW Capistrano Test Site.</u> The groundwater well shall be sampled and abandoned in a cooperative effort with TRW in accordance with applicable regulatory guidelines if necessary.	TCA and Contractor	Prior to site acquisition
<u>Measure HM-16: Petroleum Pipeline.</u> If records of pipeline integrity testing are unavailable, a soil screening program, including the collection and analysis of soil samples beneath the pipeline, will be implemented in a cooperative effort with Kinder Morgan, the pipeline operator. The soil sampling will be conducted to evaluate the presence of chemically affected soil. If contaminated soil is documented associated with this pipeline, appropriate remediation in compliance with existing local, state and federal regulations will be implemented, in conjunction with Kinder Morgan.	TCA and Contractor, in conjunction with Kinder Morgan	Prior to construction
<u>Measure HM-17: Electrical Substations.</u> If the final design for a build Alternative calls for the relocation of oil cooled and/or lubricated electrical equipment at existing electrical substations, the TCA will coordinate with the owner of the substation during final design to determine whether an evaluation of soils beneath the relocated equipment is necessary and appropriate. The TCA would also coordinate with the owner of the substation regarding the remediation of any contaminated soil associated with the affected electrical equipment, consistent with applicable local, state and federal regulations.	TCA and affected utility provider	During final design
<u>Measure HM-18: Previously Unknown Hazardous Materials Encountered During Construction.</u> If previously unknown hazardous materials or objects that could contain hazardous materials (such as an undocumented underground storage tank) are discovered during construction, construction personnel will notify TCA immediately and implement measures to control and characterize	Construction personnel and construction contractor	During construction

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>the materials encountered, including notification of hazardous materials emergency response personnel as appropriate. Characterization of the possible hazardous materials will be similar to the provisions of HM-12. The construction contractor will provide for this contingency in the Health and Safety Plan for the project.</p>		
<p><u>NES Measure 12 for Construction Storage.</u> During all construction activities, the contractor shall ensure that construction equipment or vehicles shall not be stored within areas defined as Environmentally Sensitive Areas (ESAs), including areas within the jurisdiction of the ACOE and/or CDFG. There shall be no fueling, lubrication, storage, or maintenance of construction equipment within 46 m (150 ft) of CDFG or ACOE jurisdictional areas.</p>	Contractor	Ongoing during construction
<p><u>NES Measure 13 for Construction Disposal.</u> NES measure 13 is the same as mitigation measure WW-8 in Section 8.10.</p>	See mitigation measure WW-8 in Section 8.10	See mitigation measure WW-8 in Section 8.10
Mitigation Measures Related to Visual Resources		
<p><u>Measure AS-1.</u> Adjacent landforms affected shall be recontoured to a 2:1 slope or as determined appropriate through geotechnical investigation to provide a smooth and gradual transition between modified landforms and existing grade and to minimize the appearance of manufactured grading. Use of crib-type retaining walls in place of slopes shall be minimized, except where necessary to provide greater landform diversity, reduce fill slopes, minimize long, flat slope surfaces or potentially salvage rock outcroppings. In areas where sensitive habitat is not prevalent, the top and toe of the slope edges shall be rounded to reduce the angular effects of manufactured grading. The top of slopes where the surface breaks the horizon or ridgeline shall be undulated to avoid a straight edge along the skyline. For slopes greater than 20 m (65.6 feet), terrace drains shall be used to break up slope surfaces.</p> <p>The TCA shall prepare Aesthetic Design Guidelines for the project, similar to the guidelines for the San Joaquin Hills Transportation Corridor and the Foothill/Eastern Transportation Corridor. It is not possible to provide these guidelines at this stage of the project. The guidelines will be developed during final design of a preferred Alternative. The Design Guidelines shall specifically address grading, berm design, slopes, benches and the incorporation of sound and retaining walls. These Guidelines will be used in conjunction with the Landscape Design Guidelines described in measure AS-2 to minimize the visual impacts of the build Alternatives.</p>	TCA	During final design

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
Measure AS-2. The TCA shall prepare Landscape Design Guidelines that will specify plant species that will either be seeded or planted on all exposed areas such that these areas will blend with the surrounding vegetated areas. Native vegetation shall be placed in appropriate locations and densities to fit into the natural setting. Landscaping with varied height and species diversity shall be used and material selection, location of native plant materials and sculptured grading shall emulate the adjacent natural setting. Terrace drains shall be screened with periodic placement of native plant materials in a random manner to help blend these drainage facilities into the slope and not unintentionally emphasize these facilities. The Landscape Design Guidelines will include the locations of the shrubs and/or vining species, where appropriate, at the base of soundwalls to blend these structures as much as possible with the surrounding areas. All landscaping treatments and materials shall be consistent with the Landscape Design Guidelines.	TCA	During final design
Measure AS-3. Lighting per Caltrans policies and procedures as set forth in the Caltrans Traffic Manual shall be installed by the TCA along the corridor. Lighting shall be such that Partial Interchange Lighting (PIL) with two electroliers at each interchange ramp, positioned per Caltrans standards, is provided. Additional and/or supplemental lighting shall be provided where necessary for safety. Toll collection plazas and their adjacent roadways shall be continuously lit. The mainline corridor shall not be continuously lit.	TCA	Final design and during construction
Measure AS-4. In conjunction with operation of the corridor Alternatives, light shall be applied as effectively as possible by the TCA, minimizing both the glare of any light source and the spillover of light onto areas outside of the corridor right-of-way. The vertical or horizontal illuminance from roadway lighting sources shall not illuminate any surface outside of the right-of-way greater than 1/10 of the road's average horizontal illuminance. On the segment through The Donna O'Neill Conservancy, there shall be no illumination of any surface in The Conservancy outside the right-of-way of the SOCTIIP Alternative due to roadway lighting sources installed by the TCA	TCA	Final design and during construction
Mitigation Measures Related to Energy		
No mitigation required	N/A	N/A
Mitigation Measures Related to Earth Resources		
Measure G-1. Prior to final design a design level geotechnical report will be prepared. This report will document potential soil-related constraints and hazards such as slope instability, settlement, liquefaction or related secondary seismic impacts that may be present. Acceptance of the report will be subject	TCA	Prior to final design

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>to approval by the TCA and other agencies that may have jurisdiction. A minimum factor of safety of 1.5 shall be used to determine the final slope configuration. The report shall also include:</p> <ul style="list-style-type: none"> • Evaluation of potentially expansive soils and recommendations regarding construction procedures and/or design criteria to minimize the effect of these soils on the development of the corridor. <p>The design level geotechnical studies will identify potentially liquefiable areas and provide recommendations for mitigation. Any areas that require mitigation would be within the disturbed areas, and no additional impacts would result.</p>		
<p><u>Measure G-2.</u> In conjunction with final design, it will be demonstrated that side slopes shall be designed and graded so that the potential for surface erosion of the engineered fill is not increased from natural conditions.</p>	TCA	At the time of final design
<p><u>Measure G-3.</u> In conjunction with construction activity, native vegetation with good soil-binding characteristics and low water requirements will be planted on engineered slopes to reduce erosion and slope instability.</p>	TCA	During construction
<p><u>Measure G-4.</u> A quality assurance/quality control plan will be maintained during construction. This 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.</p>	Contractor and geotechnical engineer and/or geologist	During construction
<p><u>Measure G-5.</u> A detailed review will be made to locate all groundwater wells within the project footprint. Any groundwater wells that occur within the project footprint will be abandoned properly during project construction. As may be required, (i.e., for active wells), the water supply provided by the well will be replaced. Replacement water may be provided by a variety of means, such as installing a new well or a connection to municipal supply.</p>	TCA and Contractor	At the time of final design
Mitigation Measures Related to Military Uses		
<p><u>Measure M-1: Nighttime Lighting and Shielding.</u> During construction on or in the immediate vicinity of Camp Pendleton, to minimize conflicts with night training by Base personnel, the following will be implemented:</p> <ul style="list-style-type: none"> • Construction lighting requirements during evening and night activities will be adjusted with proper shielding to focus illumination downwards in designated work areas. To accomplish this, lighting fixtures will be fitted and hooded to minimize the spillage of light in an upward direction and on adjacent properties. Lighting will be designed to use the latest style of 	TCA, Contractor and Camp Pendleton personnel	During construction on or in the immediate vicinity of Camp Pendleton

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>lighting (known as “mused lighting”) to reduce the impact on night vision goggle training activities.</p> <ul style="list-style-type: none"> Fixed lighting will not exceed the minimum needed to meet Caltrans standards. Lighting will be shrouded to reduce backscatter and vertical light pollution and will be of a type to minimize effects on adaptation to darkness and changes in light levels. A design review memoranda will be produced by the Contractor indicating that lighting design and materials used to minimize light and glare during construction are consistent with the requirements of this mitigation measure. <p>Cranes which would remain extended to a height of 12.2 meters (40 feet) above ground level (AGL) or higher during night-time hours must include the use of a Federal Aviation Administration (FAA) approved aircraft obstruction light mounted at the highest point of the equipment’s extension AGL. The aircraft obstruction light must be operational from 30 minutes before sunset until 30 minutes after sunrise each day the equipment is in place and extended above 12.2 meters (40 feet) AGL overnight.</p>		
<p><u>Measure M-2: Access and Coordination.</u> Construction activities and equipment movement could adversely impact the movement of troops and use of ranges during construction. These impacts will be mitigated by coordination among the TCA, the Contractor and Camp Pendleton personnel. Specifically, the Contractor will identify access routes, staging areas and all expected movement corridors during construction and will produce a design review memoranda/exhibit. These will be reviewed with the TCA and Camp Pendleton personnel to ensure construction activity impacts on Base training are minimized.</p>	TCA, Contractor and Camp Pendleton personnel	During construction on or in the immediate vicinity of Camp Pendleton
<p><u>Measure M-3: Base Security During Construction.</u> Prior to final design, security measures shall be incorporated into the project construction specifications to ensure that construction workers and others cannot access the Base from the construction areas. These security measures shall be designed in consultation with Camp Pendleton and shall be in the form of physical barriers including but not limited to walls and fencing. These security measures shall be implemented prior to any project related construction and shall be adequately maintained throughout the construction period.</p>	TCA, Contractor and Camp Pendleton personnel	Prior to final design and throughout construction
<p><u>Measure M-4: Nighttime Lighting and Shielding.</u> During operation on or immediately adjacent to Camp Pendleton, to minimize conflicts with night</p>	TCA, Contractor and Camp Pendleton	During project operation

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>training by Base personnel, permanent night lighting will be adjusted with proper shielding to focus illumination downwards. Lighting fixtures will be fitted and hooded to minimize the spillage of light in an upward direction and on adjacent properties including the Base. Lighting will be designed to use the latest style of lighting (known as "mused lighting") to further minimize potential glare effects on the Base. This design will be implemented at all places on and adjacent to the Base requiring lighting along the road including interchanges and the mainline. To reduce the impact on night vision goggle training activities, fixed lighting on and immediately adjacent to the Base will not exceed the minimum needed to meet Caltrans standards. Lighting on and immediately adjacent to the Base will be shrouded to reduce backscatter and vertical light pollution and should be of a type to minimize effects on adaptation to darkness and changes in light levels.</p> <p>A design review memoranda will be produced by the Contractor indicating that lighting design and materials used to minimize light and glare during operation on and immediately adjacent to the Base are consistent with the requirements of this mitigation measure.</p>	personnel	
<p>Measure M-5: Land Use Fragmentation/Ground Training. To reduce impacts associated with the fragmentation of land available on Camp Pendleton and to avoid creating a parcel on the Base fully fragmented and inaccessible from the rest of the Base, two underpasses will be constructed to provide clearance for military personnel and equipment movement. The underpasses will be sized and designed to accommodate the equipment and personnel needs as may be defined by the Marine Corps and the DON.</p>	TCA, Contractor and Camp Pendleton personnel	Prior to final design and during construction
<p>Measure M-6: Base Security. Prior to final design, security measures shall be incorporated into the project design to ensure that users of the corridor cannot access the Base. These measures shall be designed in consultation with Camp Pendleton and shall be in the form of physical barriers including but not limited to walls and fencing. These security measures shall be implemented and fully operable prior to public access to the corridor.</p>	TCA, Contractor and Camp Pendleton personnel	Prior to final design and prior to public access to corridor
<p>Mitigation Measures Related to Mineral Resources</p>		
<p>The mitigation measure concerning impacts to the mineral resources is SE-2. Refer to Section 8.4 (Socioeconomics and Environmental Justice) for a description of this measure.</p>	See Measures WQ-1 to WQ-4 from Section 8.9	See Measures WQ-1 to WQ-4 from Section 8.9
<p>Mitigation Measures Related to Paleontological Resources</p>		
<p>Measure P-1: Pre-Construction Salvage. Prior to the start of any earthmoving</p>	OCC Paleontologist	Prior to the initiation of grading

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>activity, an Orange County Certified (OCC) Paleontologist will be retained to conduct pregrading salvage of any significant exposed fossils identified by the OCC Paleontologist prior to any heavy equipment activity in a particular area. Paleontological monitoring of brush removal shall be performed by a qualified paleontologist, under the supervision of an OCC Paleontologist, to locate and salvage additional significant fossil remains not previously visible. The OCC Paleontologist shall prepare a paleontological technical report that includes methodology, results, and an inventory list of significant fossils recovered.</p>		
<p>Measure P-2: Monitoring Procedures. Prior to the start of any earthmoving activity, an OCC Paleontologist shall be retained to establish procedures, following these mitigation guidelines set forth in this Paleontological Resources Technical Report, for paleontological resource monitoring by qualified paleontological monitors during grading, and procedures for temporarily halting or redirecting work to permit the sampling, identification and evaluation of the fossils as appropriate. The OCC Paleontologist shall also establish emergency procedures applicable to the discovery of unanticipated significant paleontological resources (e.g. large specimens or significant concentrations of specimens as determined by the OCC Paleontologist). The OCC Paleontologist shall be present at the pregrading conference to explain the established procedures to the construction contractors.</p>	OCC Paleontologist	Prior to the initiation of grading
<p>Measure P-3: Construction Monitoring. During all construction activities which involve soil disturbance, the following activities will be conducted:</p> <ol style="list-style-type: none"> a. An OCC Paleontologist will be retained to supervise monitoring of construction excavations and to produce a mitigation plan for the proposed project. Paleontological monitoring will include inspection of exposed rock units and microscopic examination of matrix to determine if fossils are present. The monitor will have authority to temporarily divert grading away from exposed fossils in order to recover the fossil specimens. b. If microfossils are present, the monitor will collect matrix for processing. In order to expedite removal of fossiliferous matrix, the monitor may request heavy machinery assistance to move large quantities of matrix out of the path of construction to designated stockpile areas. Testing of stockpiles will consist of screen washing small samples (approximately 90 kilograms, or 200 pounds) to determine if significant fossils are present. Productive tests will result in screen washing of additional matrix from the stockpiles to a maximum of 2,700 kg (6,000 lbs) per locality to ensure recovery of a scientifically significant sample. 	OCC Paleontologist	During grading and all construction activities that involve soil disturbance, and at the conclusion of project grading

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>c. Younger Quaternary Alluvium, San Onofre Breccia and Quaternary Landslide Deposits have a low or indeterminate paleontological sensitivity level, and will be spot-checked in a periodic basis to insure that older underlying sediments are not being penetrated and fossils are not being exposed. All earth-moving in the Williams Formation, Silverado Formation, Santiago Formation, Sespe Formation, Vaqueros Formation, Sespe/Vaqueros Undifferentiated, Topanga Formation, Monterey Formation, Capistrano Formation, Niguel Formation, Older Quaternary Alluvium and Quaternary Marine and Non-Marine Terrace Deposits will be monitored full-time. The moderate to high paleontological sensitivity of these formations requires a maximum effort to recover fossils.</p> <p>d. The Orange County Certified Paleontologist will prepare monthly progress reports to be filed with the client and the lead agencies.</p> <p>e. Recovered fossils will be prepared to the point of curation, identified by qualified experts, listed in a database to allow analysis, and deposited in a designated repository such as a County of Orange facility, which shall have the first right-of-refusal of the collection, or the Natural History Museum of Los Angeles County or San Diego Natural History Museum.</p> <p>f. At each fossil locality, field data forms will record the locality, stratigraphic columns will be measured and appropriate scientific samples submitted for analysis.</p> <p>The Orange County Certified Paleontologist will prepare a final mitigation report to be filed with the client, the lead agencies, and the repository.</p>		
Mitigation Measures Related to Public Services and Utilities		
Mitigation Measures for Public Services		
<p><u>Measure PS-1: Avoidance of the Temporary Use and/or Permanent Acquisition of Public Services and Utilities Property.</u> During final design, the TCA will refine the design to the extent feasible based on engineering judgment and design standards to avoid or minimize the temporary use during construction and the permanent acquisition of land currently occupied by public services and utilities. In the event that the temporary use or permanent acquisition of this property cannot be avoided through design refinements, other mitigation measures identified for the compensation of temporary and permanent use of public services and utilities property will apply to the build Alternatives</p>	TCA	During final design
<p><u>Measure PS-2: Fire Protection.</u> During construction, in areas subject to</p>	Contractor	During construction in areas subject to

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
wildland fires as determined by the OCFA, or the MCB Camp Pendleton Fire Department for areas on MCB Camp Pendleton, the contractor will be required to install signs around construction sites warning of high fire risk and of area closings during the high fire season as declared by OCFA or the MCB Camp Pendleton Fire Department		wildland fires
<u>Measure PS-3: Fire Protection.</u> During operation Caltrans will install signs along the new or improved road segments in areas subject to wildland fires as determined by the OCFA, or the MCB Camp Pendleton Fire Department for areas on MCB Camp Pendleton, warning of high fire risk and of area closings during the high fire season declared by OCFA and the MCB Camp Pendleton Fire Department.	Caltrans	Ongoing during operation of the project
<u>Measure PS-4: Fire Protection.</u> Emergency call boxes will be installed along the road in undeveloped areas of high and extreme fire hazard, consistent with existing OCFA, Orange County Transportation Authority, Caltrans, TCA and/or local jurisdiction, as appropriate, policies on emergency call boxes.	Caltrans and/or local jurisdiction	Ongoing during operation of the project
<u>Measure PS-5: Fire Protection.</u> During construction of a build Alternative, the contractor will be required to maintain access to the existing fire road grid for the OCFA, and the MCB Camp Pendleton Fire Department for areas on MCB Camp Pendleton.	Contractor	During construction
<u>Measure PS-6: Fire Protection.</u> During final design, the long term preservation/provision of access to the existing fire road grid for the OCFA, and the MCB Camp Pendleton Fire Department for areas on MCB Camp Pendleton, will be incorporated in the facility design, in consultation with the OCFA and the MCB Camp Pendleton Fire Department.	TCA	During final design
<u>Measure PS-7: Fire Protection.</u> During construction, the contractor will implement fuel modification techniques as required by the OCFA, and the MCB Camp Pendleton Fire Department in areas on MCB Camp Pendleton, in areas of fire hazard as determined by the OCFA and the MCB Camp Pendleton Fire Department.	Contractor	During construction
<u>Measure PS-8: Fire, Emergency Medical and Law Enforcement.</u> During final design, the TCA, Caltrans and/or the City of San Clemente, as appropriate, will coordinate the addition of OPTICON or other traffic pre-emption devices as used in the City of San Clemente with the City's traffic engineer. These devices will be provided at impacted intersections, as identified in the Traffic Technical Report, to reduce impacts to fire, medical emergency and law enforcement response times.	TCA, Caltrans and/or the City of San Clemente	During final design
<u>Measure PS-9: Fire, Emergency Medical and Law Enforcement.</u> During	Contractor	During construction

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
construction the TCA will require the contractor to coordinate all temporary ramp closures and detour plans with fire, emergency medical and law enforcement providers to minimize temporary delays in response times.		
<u>Measure PS-10: Law Enforcement.</u> Prior to operation, the State of California shall solicit a transfer of concurrent legal (law enforcement) jurisdiction from the federal government to the State for any part of an Alternative that crosses MCB Camp Pendleton as provided in Section 2851 of the Fiscal Year 1999 National Defense Authorization Act (H.R. 3616).	State of California	Prior to operation
<u>Measure PS-13: Solid Waste.</u> Prior to construction of a build Alternative which will generate excess fill, the contractor will be required to offer fill for use in other development projects or to area landfills as daily cover. Landfilling of excess soil and rock material will be considered the option of last resort.	Contractor	Prior to construction
<u>PS-13A: Solid Waste.</u> Excess fill material from construction will not be disposed of at MCB Camp Pendleton landfills, unless such disposal is approved in advance through mutual agreement with the Environmental Security Department's Solid Waste Branch. If Base agreement for such disposal is granted, the contractor shall be responsible for hauling the materials to the Base landfill(s) and for complying with all Base regulations regarding the transport and disposal of that material on the Base.	Contractor	During construction
<u>Measure PS-14: Direct Permanent Impacts on Schools.</u> Measure PS-14 is not applicable to the Preferred Alternative.	N/A	N/A
<u>Measure PS-15: Direct Temporary Impacts on Schools.</u> Measure PS-15 is not applicable to the Preferred Alternative.	N/A	N/A
<u>Measure PS-16: Public Facilities.</u> Measure PS-16 is not applicable to the Preferred Alternative.	N/A	N/A
Mitigation Measures for Public Utilities		
<u>Measure U-1: Utilities.</u> As early as possible during final design, the TCA will consult with each utility provider/owner to avoid or reduce potential impacts on existing and planned utilities through design refinements. Should impacts be unavoidable, all affected facilities shall be relocated or protected in place prior to, during or after construction, as appropriate, and in accordance with the methods and designs approved by the affected utility provider/owner. For utilities located on MCB Camp Pendleton, as early as possible the TCA will consult with and receive approval from the Marine Corps on any utility relocations or realignments prior to discussing the proposed activities with utility providers.	TCA	During final design

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>Measure U-2: Temporary Use and Permanent Acquisition. Consistent with requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, the TCA will negotiate with utility providers whose facilities will be temporary used and/or permanently acquired to determine appropriate action and/or compensation to mitigate for the temporary use and/or permanent acquisition of their property.</p>	TCA	Prior to construction
<p>Measure U-3: MCB Camp Pendleton Percolation Ponds. Consistent with requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 appropriate action and compensation to reduce the effect of the encroachment on MCB Camp Pendleton will be negotiated with the Department of the Navy.</p>	TCA	Prior to construction
Mitigation Measures Related to Recreation Resources		
<p>Mitigation measures concerning impacts to recreation are R-1 to R-5. Refer to Section 8.5 (Mitigation Measures Related to Pedestrian and Bicycle Facilities) for a description of these measures.</p>	See Measures WQ-1 to WQ-4 from Section 8.9	See Measures WQ-1 to WQ-4 from Section 8.9
Project Design Features:		
<p>All the build Alternatives include several project design features (PDFs) intended to reduce and minimize the potential environmental impacts of the SOCTIIP build Alternatives on the human and natural environments. These PDFs include bridges for wildlife crossings, runoff management features, retaining and sound walls, landscaping, and lighting. Although the PDFs are not mitigation measures, they are included in the MMRP in order to ensure and track their implementation. The PDFs for the corridor Alternatives are described below.</p>		
<p>PDF 2-1: Retaining Walls for the Corridor Alternatives. Retaining walls will be provided in some locations along the alignments. Retaining walls can be used to minimize or reduce the amount of grading in areas with substantial topography, or to minimize or reduce right-of-way takes in developed areas. The specific locations of retaining walls will be refined in final design.</p>	TCA	During Final Design
<p>PDF 6-1: Sound Walls for the Corridor Alternatives. Sound walls to reduce noise impacts on adjacent sensitive land uses under the corridor Alternatives will be provided consistent with FHWA, Caltrans, and local noise standards. The locations of the noise walls included in the corridor Alternatives are shown on detailed maps in Appendix K. Some of these noise walls will be outside the disturbance limits and rights-of-way for the corridor Alternatives. Those noise walls would be adjacent to existing sensitive land uses to maximize the noise reduction benefits of these walls for the adjacent sensitive uses. Those walls would be constructed on the affected property, with the permission of the property owner, and would become the property of that property owner. The disturbance limits for these walls would be limited to the area directly adjacent to the walls. The construction access to these wall locations would be from the</p>	TCA and Caltrans	During Final Design

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
property owner's access (driveway) from the nearest public road and not from the disturbance limits for the build Alternatives. The noise walls for the SOCTIIP build Alternatives, including walls outside the disturbance limits, are shown on the detailed maps in Appendix K.		
<p>PDF 9-1: Reduction of Downstream Effects Caused By Changes in Flow. If changes in velocity or volume of runoff, the sediment load or other hydraulic changes due to encroachment, crossings, or realignment result in an increased potential for downstream effects in channels, design features to prevent adverse effects are included in the alternatives. These will include one or more of the following (or similar features):</p> <ul style="list-style-type: none"> • Modifications to channel lining materials (both natural and man-made), including vegetation, geotextile mats, rock, and riprap. • Energy dissipation devices at culvert outlets. • Smoothing the transition between culvert outlets/headwalls/wingwalls and channels to reduce turbulence and scour. • Incorporating retention or detention facilities into designs to reduce peak discharges, volumes, and erosive flow. 	TCA	During Final Design
<p>PDF 9-2: Concentrated Flow Conveyance Systems. The TCA will implement concentrated flow conveyance systems to intercept and divert surface flows, and convey and discharge concentrated flows with a minimum of soil erosion, both on-site and off-site where applicable. Ditches, berms, dikes and swales will be used to intercept and direct surface runoff to an overside drain or stabilized watercourse.</p>	TCA	During Final Design
<p>PDF 9-3: Slope and Surface Protection Systems. The TCA will use surface protection to minimize erosion from completed, disturbed surfaces. Surface protection includes but is not limited to vegetative cover or hard surfacing such as concrete, rock, or rock and mortar.</p>	TCA	During Final Design
<p>PDF 9-4. Detention Basins. The TCA will implement EDBs on the SOCTIIP build Alternative to temporarily detain water on the site and allow sediment and particulates to settle out. EDBs will be maintained, monitored and documented per RWQCB and Caltrans requirements and conform to the guidelines set forth in the SWMP. The siting of EDBs requires that sufficient head is available such that water stored in the basin does not cause a backwater condition in the storm drain system, which would limit its capacity. Additionally, high groundwater must be no higher than the bottom elevation of the basin; otherwise, the basin would not drain completely. The siting process also required consideration of sensitive environmental constraints. The EDBs were</p>	TCA	During Final Design

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
sited to avoid those areas as well.		
<p>PDF 9-5. Biofiltration Swales and Strips (Vegetated Treatment Strips). The TCA will use biofiltration swales and strips, as shown in the RMP, where applicable and in association with EDBs to convey low flow. One of the primary limitations of using bioswales is that they must be used on slopes less than two percent. Due to the terrain and the design of the Alternatives there were very few locations where they could be applied. Bioswales will be maintained, monitored and documented per RWQCB and Caltrans requirements and will conform to guidelines set forth in the SWMP.</p>	TCA	During Final Design
<p>PDF 9-6. Infiltration Basins. To the extent feasible or necessary, infiltration basins will be implemented to detain runoff and infiltrate it into the soil to prevent contaminants from impairing the beneficial uses of receiving waters. Infiltration basins will be maintained, monitored and documented per RWQCB and Caltrans requirements and conform to the guidelines set forth in the SWMP</p>	TCA	During Final Design
<p>PDF 9-7: Runoff Management PDFs for the Corridor Alternatives. The build Alternatives include Best Management Practices (BMPs) to control the flow of roadway runoff and treat, to the maximum extent practicable (MEP), roadway runoff before it leaves the project site and enters existing water courses or storm drain facilities. PDFs for the SOCTIIP build Alternatives include BMPs such as extended detention basins (EDBs) and grassy swales. The disturbance and right-of-way limits for the build Alternatives, shown on the detailed maps in Appendix A, include areas for EDBs and other BMPs.</p> <p>The PDFs consist of both pollution prevention BMPs and treatment BMPs. Pollution prevention BMPs are used to address design phase elements, construction, and spill mitigation. Treatment BMPs are used in the design to meet regulatory water quality requirements at specific locations. Both pollution prevention and treatment BMPs are included in the build Alternatives to the MEP. Most of the treatment BMPs, such as EDBs, are designed with a safety factor such that they will function in conditions beyond those prescribed by Caltrans National Pollutant Discharge Elimination System (NPDES) permit.</p>	TCA	During Final Design
<p>PDF 9-8. Prior to completion of final design, TCA shall obtain approval of the hydrologic methodology and parameters to be analyzed in the Final Hydrologic Technical Report and incorporated into the Final Location Hydraulic Study from affected jurisdictional agencies.</p>	TCA	During Final Design
<p>PDF 9-9. Final design will include refinements to ensure that the bridges will be constructed to span the 100-year floodplain without raising the 100-year</p>	TCA	During Final Design

**Mitigation Monitoring and Reporting Program
for the Preferred Alternative (continued)**

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
base floodplain water surface elevation more than 0.3 meter (1.0 foot), or otherwise causing adverse changes in the extent of the floodplain or the potential for erosion.		
PDF 11-1: Bridges for Wildlife Crossings under the Corridor Alternatives. As described earlier in Section 2.5.1.5, the corridor Alternatives include bridge structures that would provide opportunities for wildlife to cross the corridor alignments. These wildlife crossings are intended to link together areas of suitable wildlife habitat that would otherwise be separated by the corridor alignments. Wildlife crossings are shown on the detailed maps in Appendix A and on Figure 4.11-6 later in this EIS/SEIR. Section 4.11 (Affected Environment, Impacts and Mitigation Measures Related to Wildlife, Fisheries and Vegetation) provides additional discussion regarding wildlife and wildlife corridors in the study area and how wildlife movements are accommodated by the bridges in the corridor Alternatives.	TCA and Project and Biologist	During Final Design
PDF 18-1: Lighting for the Corridor Alternatives. The corridor Alternatives will include pole-mounted lighting at the toll plazas, ramps, and other locations as required by Caltrans standards. Lighting in areas away from the toll plazas, ramps, and other locations as required by Caltrans standards will be minimized to avoid unnecessary light effects in more rural areas adjacent to the corridor. In addition, all lighting along the corridors will be shielded and directed to focus the light on the corridor and its facilities to minimize light leakage outside the corridor limits.	TCA and Caltrans	During Final Design
PDF 8-2: Landscaping for the Corridor. The corridor Alternatives will include landscaping for unpaved areas within the corridor rights-of-way. Landscaping will focus on native plant species, particularly in areas adjacent to undeveloped land with native plant species. In addition, the landscaping will include design components and plant materials intended to reduce the visual impacts of the corridor alternatives on adjacent sensitive uses. Section 4.18 (Affected Environment, Impacts and Mitigation Measures Related to Visual Resources) provides additional discussion of the use of native plant materials and other landscaping to soften views of the corridor.	TCA	During Final Design
PDF 11-2: SDG&E NCCP Operational Protocols. Utility relocation will be conducted in a manner that is consistent with the operational protocols established in SDG&E's Subregional NCCP, including measures that address general behavior for all field personnel, preactivity studies and survey work, maintenance, repair and construction of facilities, and construction and maintenance of access roads.		

ATTACHMENT C

ATTACHMENT C

RESOLUTION NO. F2006-01 ENTITLED "A RESOLUTION OF THE BOARD OF DIRECTORS OF THE FOOTHILL/EASTERN TRANSPORTATION CORRIDOR AGENCY CERTIFYING FINAL SUBSEQUENT ENVIRONMENTAL IMPACT REPORT TCA SEIR 4 FOR THE SOUTH ORANGE COUNTY TRANSPORTATION INFRASTRUCTURE IMPROVEMENT PROJECT PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT."

RESOLUTION NO. F2006-01

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE FOOTHILL/EASTERN TRANSPORTATION CORRIDOR AGENCY CERTIFYING FINAL SUBSEQUENT ENVIRONMENTAL IMPACT REPORT TCA SEIR 4 FOR THE SOUTH ORANGE COUNTY TRANSPORTATION INFRASTRUCTURE IMPROVEMENT PROJECT PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

January 12, 2006

On motion of Board Member _____, duly seconded and carried, the following resolution was adopted:

WHEREAS, the South Orange County Transportation Infrastructure Improvement Project ("SOCTIIP") in the form of the Foothill Transportation Corridor-South has been identified as a needed facility in studies of existing and projected travel demand in Orange County beginning in the early 1970's, and including the 1976 Southeast Orange County Circulation Study; and

WHEREAS, the Multimodal Transportation Study and Refinement Study (1979) evaluated land use and transportation alternatives for Orange County; and

WHEREAS, the Foothill Transportation Corridor-South ("Foothill-South") was added to the Orange County Master Plan of Arterial Highways by the Orange County Board of Supervisors in August, 1981; and

WHEREAS, the County of Orange conducted baseline environmental studies and preliminary engineering analyses for the Foothill Transportation Corridor, and prepared and certified Environmental Impact Report No. 123; and

WHEREAS, the Southern California Association of Governments ("SCAG") and the San Diego Association of Governments ("SANDAG") are the metropolitan planning organizations for Southern California and are responsible for preparing and evaluating regional transportation plans and transportation improvement programs for Southern California; and

WHEREAS, SCAG and SANDAG certified environmental impact reports evaluating the regional transportation plans and alternatives thereto; and

WHEREAS, the SCAG and SANDAG regional transportation plans and the regional transportation improvement programs identify the Foothill-South as a necessary component of the regional transportation system in Southern California; and

WHEREAS, SCAG and SANDAG included the Foothill-South in their respective transportation improvement programs and have certified that the regional transportation plans and transportation improvement programs conform with the requirements of the State Implementation Plan adopted pursuant to the Federal Clean Air Act; and

WHEREAS, the South Coast Air Quality Management District and the California Air Resources Board included the SCAG Regional Transportation Plan as a component of the South Coast Air Quality Management Plan and identified the Foothill South as a Transportation Control Measure in the South Coast Air Quality Management Plan after analyzing regional alternatives for achieving attainment with the National Ambient Air Quality Standards of the Federal Clean Air Act; and

WHEREAS, the Foothill/Eastern Transportation Corridor Agency ("TCA") prepared EIR No. 3 to evaluate the potential environmental effects of the Foothill-South and of alternatives to Foothill-South including the C and BX alignment alternatives for the Foothill-South; and

WHEREAS, the TCA prepared and certified EIR No. 3, including Supplemental EIR No. 3, and selected the modified C alignment as the locally preferred alternative on October 10, 1991, and the modified C alignment was slightly altered, in consultation with the U.S. Fish and Wildlife Service, to minimize impacts to biological resources, and this alignment was called the CP alignment; and

WHEREAS, the California Legislature placed the Foothill Transportation Corridor on the State Highway System and designated it as State Route 241; and

WHEREAS, in 1993 the Federal Highway Administration ("FHWA"), the U.S. Environmental Protection Agency, ("USEPA"), the U.S. Army Corps of Engineers ("ACOE") and the U.S. Fish and Wildlife Service ("USFWS") entered into that certain Memorandum of Understanding (the "NEPA/404 MOU") establishing a new and integrated process for the evaluation of federally-approved transportation projects in Arizona, California and Nevada under the National Environmental Policy Act ("NEPA"), section 404 of the Clean Water Act and the Endangered Species Act; and

WHEREAS, in accordance with the NEPA/404 MOU, the above federal regulatory agencies, the TCA, Caltrans and the United States Marine Corps initiated a process (the "Collaborative") to govern the integrated environmental evaluations of transportation infrastructure improvements in south Orange County to address regional transportation and mobility needs (referred to herein as the "South Orange County Transportation Infrastructure Improvement Project" or "SOCTIIP"); and

WHEREAS, the federal and state agencies agreed on a Purpose and Need Statement regarding the SOCTIIP, developed and analyzed alternatives including several "no build" and other non-toll road alternatives, and conducted, supervised and analyzed technical studies and independently reviewed the Draft Environmental Impact Statement/Subsequent Environmental Impact Report for the SOCTIIP ("Draft EIS/SEIR"); and

WHEREAS, the TCA issued a Notice of Preparation for the Draft EIS/SEIR in June 2001; and

WHEREAS, duly noticed scoping hearings were held on March 26, 2001, March 27, 2001 and March 29, 2001 concerning the Draft EIS/SEIR; and

WHEREAS, TCA held numerous other consultations and meetings concerning the SOCTIIP as described in the Final SEIR section ES 6.2 and section 11; and

WHEREAS, the FHWA and TCA distributed the Draft EIS/SEIR for public review on May 7, 2004 through and including August 6, 2004; and

WHEREAS, FHWA and TCA conducted a public hearing on the Draft EIS/SEIR on June 19, 2004; and

WHEREAS, TCA Draft Subsequent EIR 4 was prepared and circulated pursuant to the provisions of the California Environmental Quality Act (CEQA), the State of California CEQA Guidelines, adopted by the California Resources Agency, and the Foothill/Eastern Transportation Corridor Agency CEQA Procedures; and

WHEREAS, written comments were received during and after the public comment period, and a written response was prepared to written comments and to oral comments at the public hearings and meetings, which responses employ a good faith, reasoned analysis to describe and address the disposition of environmental issues raised by the comments; and

WHEREAS, the Final Subsequent Environmental Impact Report 4 ("TCA SEIR 4"), including responses to comments was distributed to commenting agencies and members of the public on December 6, 2005; and

WHEREAS, the TCA Final SEIR 4 as been prepared pursuant to CEQA and to the State of California CEQA Guidelines and includes the following:

1. Draft EIS/SEIR;
2. Draft EIS/SEIR Technical Studies;
3. Comments received on Draft EIS/SEIR;
4. Responses to comments on Draft SEIR;
5. TCA Final SEIR 4;
6. Staff reports of the Transportation Corridor Agency concerning Draft EIS/SEIR and TCA Final SEIR 4;
7. The resolution of the TCA Board of Directors certifying TCA Final SEIR 4;
8. The Environmental Findings, Statement of Facts in Support of Findings, the Statement of Overriding Considerations and the Mitigation Monitoring and Reporting Program; and

WHEREAS, the Foothill/Eastern Transportation Corridor Agency Board of Directors conducted a duly noticed public meeting concerning the certification of TCA Final SEIR 4 and

concerning the selection of the locally preferred alternative on January 12, 2006, and heard evidence from all persons interested in testifying concerning the certification of TCA Final SEIR 4 and the selection of the locally Preferred Alternative for the SOCTIIP; and

WHEREAS, in accordance with the NEPA/404 MOU, the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency issued their preliminary agreement that the Preferred Alternative identified in TCA Final EIR 4 is the least environmentally damaging practicable alternative and the U.S. Fish and Wildlife Service has preliminarily determined that the Preferred Alternative complies with the requirements of the Endangered Species Act; and

WHEREAS, the Foothill/Eastern Transportation Corridor Agency Board of Directors has reviewed and considered TCA Final SEIR 4 and has considered the oral and written comments on the TCA Final SEIR 4 and the responses thereto:

NOW, THEREFORE, the Foothill/Eastern Transportation Corridor Agency Board of Directors resolves as follows that:

1. The foregoing recitals are true and correct.
2. TCA Final SEIR 4 has been completed in compliance with CEQA, the State of California CEQA Guidelines and the Foothill/Eastern Transportation Corridor Agency CEQA procedures and is hereby certified as adequate and complete.
3. TCA Final SEIR 4 reflects the independent judgment and analysis of the Foothill/Eastern Transportation Corridor Agency.
4. The TCA Final SEIR 4 was presented to the Foothill/Eastern Transportation Corridor Agency Board of Directors and the Board of Directors reviewed and considered the information contained in TCA Final SEIR 4 prior to approving the project.
5. If any section, paragraph or provision of this Resolution shall be held to be invalid or unenforceable for any reason, the invalidity or unenforceability of such section, paragraph or provision shall not affect any remaining provisions of this Resolution.
6. This Resolution shall take effect from and after its adoption.

PASSED AND ADOPTED this 12th of January, 2006, by the following vote:

AYES:

NOES:

ABSENT:

**KEN RYAN, CHAIRMAN
FOOTHILL/EASTERN TRANSPORTATION CORRIDOR AGENCY**

ATTEST:

ANNITA HENZIE, CLERK OF THE BOARD

CAROLYN LEBAIL, ASSISTANT SECRETARY TO THE BOARD

ATTACHMENT D

ATTACHMENT D

**RESOLUTION NO. F2006-02 ENTITLED "A RESOLUTION OF THE BOARD OF DIRECTORS
OF THE FOOTHILL/EASTERN TRANSPORTATION CORRIDOR AGENCY SELECTING
THE PREFERRED ALTERNATIVE FOR THE SOUTHERN ORANGE COUNTY
TRANSPORTATION INFRASTRUCTURE IMPROVEMENT PROJECT."**

RESOLUTION NO. F2006-02

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE FOOTHILL/EASTERN TRANSPORTATION CORRIDOR AGENCY SELECTING THE PREFERRED ALTERNATIVE FOR THE SOUTH ORANGE COUNTY TRANSPORTATION INFRASTRUCTURE IMPROVEMENT PROJECT

January 12, 2006

On motion of Board Member _____, duly seconded and carried, the following resolution was adopted:

WHEREAS, the South Orange County Transportation Infrastructure Improvement Project ("SOCTIIP") in the form of the Foothill Transportation Corridor-South has been identified as a needed facility in studies of existing and projected travel demand in Orange County beginning in the early 1970's, and including the 1976 Southeast Orange County Circulation Study; and

WHEREAS, the Multimodal Transportation Study and Refinement Study (1979) evaluated land use and transportation alternatives for Orange County; and

WHEREAS, the Foothill Transportation Corridor-South ("Foothill-South") was added to the Orange County Master Plan of Arterial Highways by the Orange County Board of Supervisors in August, 1981; and

WHEREAS, the County of Orange conducted baseline environmental studies, preliminary engineering analyses for the Foothill Transportation Corridor, and prepared and certified Environmental Impact Report No. 123; and

WHEREAS, the Southern California Association of Governments ("SCAG") and the San Diego Association of Governments ("SANDAG") are the metropolitan planning organizations for Southern California and are responsible for preparing and evaluating regional transportation plans and transportation improvement programs for Southern California; and

WHEREAS, SCAG and SANDAG certified environmental impact reports evaluating the regional transportation plans and alternatives thereto; and

WHEREAS, the SCAG and SANDAG regional transportation plans and regional transportation improvement programs identify the Foothill-South as a necessary component of the regional transportation system in Southern California; and

WHEREAS, SCAG and SANDAG included the Foothill-South in their respective transportation improvement programs and have certified that the regional transportation plans and the transportation improvement programs conform with the requirements of the State Implementation Plan adopted pursuant to the Federal Clean Air Act; and

WHEREAS, the South Coast Air Quality Management District and the California Air Resources Board included the SCAG Regional Transportation Plan as a component of the South Coast Air Quality Management Plan and identified the Foothill-South as a Transportation Control Measure in the South Coast Air Quality Management Plan after analyzing regional alternatives for achieving attainment with the National Ambient Air Quality Standards of the Federal Clean Air Act; and

WHEREAS, the Foothill/Eastern Transportation Corridor Agency ("TCA") prepared EIR No. 3 to evaluate the potential environmental effects of the Foothill-South and of alternatives to Foothill-South including the C and BX alignment alternatives for the foothill-South; and

WHEREAS, the TCA prepared and certified EIR No. 3, including Supplemental EIR No. 3, and selected the modified C alignment as the locally preferred alternative on October 10, 1991, and the modified C alignment was slightly altered, in consultation with the U.S. Fish and Wildlife Service, to minimize impacts to biological resources, and this alignment was called the CP alignment; and

WHEREAS, the California Legislature placed the Foothill Transportation Corridor on the State Highway System and designated it as State Route 241; and

WHEREAS, in 1993 the Federal Highway Administration ("FHWA"), the U.S. Environmental Protection Agency, ("USEPA"), the U.S. Army Corps of Engineers ("ACOE") and the U.S. Fish and Wildlife Service ("USFWS") entered into that certain Memorandum of Understanding (the "NEPA/404 MOU") establishing a new and integrated process for the evaluation of federally-approved transportation projects in Arizona, California and Nevada under the National Environmental Policy Act ("NEPA"), section 404 of the Clean Water Act and the Endangered Species Act; and

WHEREAS, in accordance with the NEPA/404 MOU, the above federal regulatory agencies, the TCA, Caltrans and the United States Marine Corps initiated a process (the "Collaborative") to govern the integrated environmental evaluation of transportation infrastructure improvements in south Orange County to address regional transportation and mobility needs (referred to herein as the "South Orange County Transportation Infrastructure Improvement Project" or "SOCTIIP"); and

WHEREAS, the federal and state agencies agreed on a Purpose and Need Statement regarding the SOCTIIP, developed and analyzed alternatives, including several "no build" and other non-toll road alternatives, and conducted, supervised and analyzed technical studies and independently reviewed the Draft Environmental Impact Statement/Subsequent Environmental Impact Report for the SOCTIIP ("Draft EIS/SEIR"); and

WHEREAS, the TCA issued a Notice of Preparation for the Draft EIS/SEIR in June 2001; and

WHEREAS, duly noticed scoping hearings were held on March 26, 2001, March 27, 2001 and March 29, 2001 concerning the Draft EIS/SEIR; and

WHEREAS, TCA held numerous other consultations and meetings concerning the SOCTIP as described in the Final SEIR section ES 6.2 and section 11; and

WHEREAS, the FHWA and TCA distributed the Draft EIS/SEIR for public review on May 7, 2004 through and including August 6, 2004; and

WHEREAS, FHWA and TCA conducted a public hearing on the Draft EIS/SEIR on June 19, 2004; and

WHEREAS, TCA Draft Subsequent EIR 4 was prepared and circulated pursuant to the provisions of the California Environmental Quality Act ("CEQA"), the State of California CEQA Guidelines, and the Foothill/Eastern Transportation Corridor Agency CEQA Procedures; and

WHEREAS, written comments were received during and after the public comment period, and a written response was prepared to written comments and to oral comments at the public hearings and meetings, which responses employ a good faith, reasoned analysis to describe and address the disposition of environmental issues raised by the comments; and

WHEREAS, the Final Subsequent Environmental Impact Report ("TCA Final SEIR 4"), including responses to comments, was distributed to commenting agencies and members of the public on December 6, 2005; and

WHEREAS, the TCA Final SEIR 4 has been prepared pursuant to CEQA and to the State of California CEQA Guidelines and includes the following:

1. Draft EIS/SEIR;
2. Draft EIS/SEIR Technical Studies;
3. Comments received on Draft EIS/SEIR;
4. Responses to comments on Draft SEIR;
5. TCA Final SEIR 4;
6. Staff reports of the Transportation Corridor Agency concerning Draft EIS/SEIR and TCA Final SEIR 4;
7. The resolution of the TCA Board of Directors certifying TCA Final SEIR 4;
8. The attachments to this Resolution No. F2006-02, including the Environmental Findings, Statement of Facts in Support of Findings, the Statement of Overriding Considerations and the Mitigation Monitoring Program; and

WHEREAS, the Foothill/Eastern Transportation Corridor Agency Board of Directors conducted duly noticed public meetings concerning the certification of TCA Final SEIR 4 and

concerning the selection of the locally preferred alternative on January 12, 2006, and heard evidence from all persons interested in testifying concerning the certification of TCA Final SEIR 4 and the selection of the locally preferred alternative for the SOCTIIP; and

WHEREAS, the Foothill/Eastern Transportation Corridor Agency Board of Directors reviewed and considered TCA Final SEIR 4 and has considered the oral and written comments on the TCA Final SEIR 4 and the responses thereto prior to approving the project; and

WHEREAS, the Foothill/Eastern Transportation Corridor Agency Board of Directors certified TCA Final SEIR 4 as adequate and complete prior to taking action on the project; and

WHEREAS, in accordance with the NEPA/404 MOU the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency issued their preliminary agreement that the Preferred Alternative identified in TCA Final SEIR 4 is the least environmentally damaging practicable alternative and the U.S. Fish and Wildlife Service has preliminarily determined that the Preferred Alternative complies with the requirements of the Endangered Species Act; and

NOW, THEREFORE, the Foothill/Eastern Transportation Corridor Agency Board of Directors resolves as follows that:

1. The foregoing recitals are true and correct.
2. The Preferred Alternative described in TCA Final SEIR 4 is selected and adopted as the preferred alternative for SOCTIIP.
3. The project design features identified in TCA Final SEIR 4 with regard to the Preferred Alternative and included for monitoring purposes in the Mitigation Monitoring Program are hereby adopted.
4. The Environmental Findings, Facts in Support of Findings, and Statement of Overriding Considerations attached as Attachment "A" hereto are hereby adopted and incorporated herein by reference.
5. The Mitigation Monitoring Plan attached hereto as Attachment "B" hereto is hereby adopted and incorporated herein by reference.
6. The mitigation measures described in the Mitigation Monitoring Program attached as Attachment "B" hereto are hereby adopted and incorporated herein by reference.
7. The Chief Executive Officer of the Transportation Corridor Agencies is authorized to initiate such steps as appropriate and necessary to: (i) prepare final construction plans, specifications and estimates; (ii) acquire right-of-way; (iii) obtain financing for the construction of the Preferred Alternative; (iv) implement the mitigation measures identified in Attachment "B"; (v) obtain necessary permits and approvals for the construction of the Preferred Alternative; (vi) take such other steps as may be necessary to construct the Preferred Alternative and open the facility to traffic as early as feasible; and (vii) bring back to this Board any

appropriate recommendations to further implement the foregoing.

8. If any section, paragraph or provision of this Resolution shall be held invalid or unenforceable for any reason, the invalidity or unenforceability of such section, paragraph or provision shall not affect any remaining provisions of this Resolution.

9. This Resolution shall take effect from and after its adoption.

PASSED AND ADOPTED this ____ of January, 2006, by the following vote:

AYES:

NOES:

ABSENT:

KEN RYAN, CHAIRMAN
FOOTHILL/EASTERN TRANSPORTATION CORRIDOR AGENCY

ATTEST:

ANNITA HENZIE, CLERK OF THE BOARD

CAROLYN LEBAIL, ASSISTANT SECRETARY TO THE BOARD

ATTACHMENT E

ACRONYMS

ACRONYM**DESCRIPTION**

A7C-ALPV	Alignment 7 Corridor-Avenida La Pata Variation
A7C-FEC-M	Alignment 7 Corridor-Far East Crossover-Modified
ACOE	United States Army Corps of Engineers
AIO	Arterial Improvements Only
Caltrans	California Department of Transportation
Camp Pendleton	Marine Corps Base Camp Pendleton
CC	Central Corridor-Complete
CCA	California Coastal Act
CC-ALPV	Central Corridor-Avenida La Pata Variation
CDC	California Department of Conservation
CDFG	California Department of Fish and Game
CDPR	California Department of Parks and Recreation
CEQA	California Environmental Quality Act
CSS	Coastal Sage Scrub
CUSD	Capistrano Unified School District
EDBs	Extended Detention Basins
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FEC-M	Far East Corridor-Modified
FEC-W	Far East Corridor-West
FHWA	Federal Highway Administration
FTC	Foothill Transportation Corridor
FTC-N	Foothill Transportation Corridor-North
FTC-S	Foothill Transportation Corridor South
HOV	High Occupancy Vehicles
LEDPA	Least Environmentally Damaging Practicable Alternative
MCB	Marine Corps Base
MOU	Memorandum of Understanding
MPAH	County Master Plan of Arterial Highway
NCCP	Natural Community Conservation Plan
NEPA	National Environmental Policy Act
OCFA	Orange County Fire Authority
PDFs	Project Design Features
RMV	Ranch Mission Viejo
SAMP	Special Area Management Plan
SANDAG	San Diego Association of Governments
SCAG	Southern California Association of Governments
SEIR	Subsequent Environmental Impact Report
SOCTIIP	South Orange County Transportation Infrastructure Improvement Project
SOSB	San Onofre State Beach
SOWs	Scopes of Work
SR-241	State Route 241
TCA	Foothill/Eastern Transportation Corridor Agency
Upper Chiquita	The Upper Chiquita Canyon Conservation Area
USFWS	United States Fish and Wildlife Service