

Appendix A
Mitigation Monitoring and Reporting Program

Impacts	Mitigation Measure	Responsible/Monitoring Party	Monitoring Action or Implementation Stage
<i>Biological Resources</i>			
<p>The analysis contained within the Section IV (Biological Resources) indicates that the proposed Project has a “low” or “no” potential to affect sensitive species and associated habitats, due to the developed nature of the area. It also determined that during construction, if activities occur during the avian nesting season, the proposed Project could be in conflict with the MBTA. The analysis also determined no riparian habitat or other sensitive communities are present within the BSA, although San Joaquin Channel is located within close proximity, but would not be affected.</p>	<p>BIO-1 Wildlife Pre-Construction Surveys and Biological Monitoring: Prior to ground disturbance or vegetation clearing within the Project site, a qualified biologist shall conduct surveys for wildlife (no more than 14 days prior to site disturbing activities) where suitable habitat is present and directly impacted by construction activities. Wildlife found within the Project site or in areas potentially affected by the Project will be relocated to the nearest suitable habitat that will not be affected by the project prior to the start of construction. Special-status species found within a Project impact area shall be relocated by an authorized biologist to suitable habitat outside the impact area.</p> <p>The qualified biologist shall be present during initial ground disturbance for each phase of construction. Once initial ground disturbance is complete, monitoring will occur periodically during construction activities. The qualified biologist(s) shall be present at all times during ground-disturbing activities immediately adjacent to, or within habitat that supports populations of listed or special-status species.</p> <p>If required, during pre-construction surveys and/or required monitoring efforts, the qualified biologist will relocate common and special-status species that enter the Project site; some special-status species may require specific permits prior to handling and/or have established protocols for relocation. Records of all detection, capture and release shall be reported to California Department of Fish and Wildlife (CDFW).</p>	<p>City of Irvine, Department of Public Works and Transportation</p>	<p>Prior to earthmoving activities or construction and then during initial ground disturbing activities, and periodically, as needed thereafter.</p>

Impacts	Mitigation Measure	Responsible/Monitoring Party	Monitoring Action or Implementation Stage
	<p>BIO-2 Environmental Awareness Training: The Project proponent shall have a qualified biologist prepare an environmental awareness and compliance training program. All Project personnel will be required to attend and complete the environmental awareness and compliance training program. The training program shall present the environmental regulations and applicable permit conditions that the Project team shall comply with. The training program shall include applicable measures established for the Project to minimize impacts to water quality and avoid sensitive resources, habitats and species. Dated sign-in sheets for attendees at these meetings shall be maintained and submitted to the City of Irvine.</p>	City of Irvine, Department of Public Works and Transportation	Initial training prior to construction and administered as needed, provided new contractor/staff access the work site area.
	<p>BIO-3 Implement Best Management Practices (BMPs): Prior to the issuance of any grading permits and/or notice to proceed, the Project proponent shall submit grading plans and specifications to the City of Irvine, which indicate that the Project shall implement the following best management practices (BMPs):</p> <ul style="list-style-type: none"> • Restrict non-essential equipment to the existing roadways and/or ruderal areas to avoid disturbance to native vegetation. • All excavated pit , steep-walled holes, or open trenches shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth dirt fill or wooden planks to allow for small wildlife (e.g., lizards, mice, etc) to escape. Trenches will also be inspected for entrapped wildlife each morning prior to onset of construction activities and immediately prior to covering with plywood at the end of each working day. In the absence of a qualified monitor the Project contractor shall be responsible for inspecting all excavated areas and open trenches after uncovering in the morning and before recovering at the end of the work day. Before such holes or trenches are filled, they will be thoroughly inspected for entrapped wildlife. Any wildlife 	City of Irvine, Department of Public Works and Transportation	Prior to and during construction.

Impacts	Mitigation Measure	Responsible/Monitoring Party	Monitoring Action or Implementation Stage
	<p>discovered will be allowed to escape before construction activities are allowed to resume, or removed from the trench or hole by a qualified biologist holding the appropriate permits (if required).</p> <ul style="list-style-type: none"> • Minimize mechanical disturbance of soils to reduce impact of habitat manipulation on small mammals, reptiles, and amphibians. • Removal/disturbance of vegetation shall be minimized to the greatest extent feasible. • Install and maintain appropriate erosion/sediment control measures, as needed, throughout the duration of work activities. • No vehicles or equipment shall be refueled within 100 feet of an ephemeral drainage or wetland unless a bermed and lined refueling area is constructed. Spill kits shall be maintained on site in sufficient quantity to accommodate at least three complete vehicle tank failures of 50 gallons each. Any vehicles driven and/or operated within or adjacent to drainages or wetlands shall be checked and maintained daily to prevent leaks of materials. 		
	<p>BIO-4 Nesting Bird Surveys and Avoidance Measures: Prior to initial site disturbance/issuance of grading permits, seasonally timed presence/absence surveys for nesting birds shall be conducted by a qualified biologist. If construction activities carry over into a second nesting season(s) the surveys will need to be completed annually until the Project is complete. A minimum of three survey events, three days apart shall be conducted (with the last survey no more than three days prior to the start of site disturbance), if construction is scheduled to begin during avian nesting season (February 15th through September 15th); surveys for raptors shall be conducted from January 1st to August 15th. Surveys shall be conducted within 500 feet of all Project activities.</p> <p>If least Bell's vireo or other special-status species are observed, consultation with U.S. Fish and Wildlife</p>	<p>City of Irvine, Department of Public Works and Transportation</p> <p>California Department of Fish and Wildlife</p>	<p>Prior to earthmoving activities or construction.</p>

Impacts	Mitigation Measure	Responsible/Monitoring Party	Monitoring Action or Implementation Stage
	<p>Service (USFWS) and/or CDFW is required. If breeding birds with active nests are found prior to or during construction, a qualified biological monitor shall establish a 300-foot buffer around the nest and no activities will be allowed within the buffer(s) until the young have fledged from the nest or the nest fails. The prescribed buffers may be adjusted by the qualified biologist based on existing conditions around the nest, planned construction activities, tolerance of the species, and other pertinent factors. The qualified biologist shall conduct regular monitoring of the nest to determine success/failure and to ensure that Project activities are not conducted within the buffer(s) until the nesting cycle is complete or the nest fails. If construction occurs outside of avian nesting season, only a single presence/absence survey will be required.</p>		
	<p>BIO-5 Vegetation Removal and Replacement: If removal of riparian/sensitive vegetation communities cannot be avoided (should they occur) the impacted plant communities shall be replaced at a mitigation ratio of 1:1 for temporary impacts and 2:1 for permanent impacts; no riparian/sensitive communities currently occur within proposed Project areas but are potentially present within adjacent areas. The compensation for the loss of habitats may be achieved either by a) on-site habitat creation or enhancement with similar species composition to those present prior to construction, b) off-site creation or enhancement or c) participation in an established mitigation bank program.</p> <p>Prior to the removal of riparian or other sensitive vegetation, if on or off-site mitigation is required, a Habitat Mitigation and Monitoring Plan shall be prepared that will guide all restoration and monitoring activities. This plan shall include, at a minimum, the following:</p> <ul style="list-style-type: none"> • Proposed species list for creation/enhancement; • Planting/seeding methodology; • Irrigation plan; • Weeding schedule; 	<p>City of Irvine, Department of Public Works and Transportation</p>	<p>Prior to contrition and grading activities.</p>

Impacts	Mitigation Measure	Responsible/Monitoring Party	Monitoring Action or Implementation Stage
	<ul style="list-style-type: none"> • Success criteria; • Monitoring methodology and schedule; and • Reporting requirements 		
<i>Cultural Resources</i>			
<p>As noted in Section V (Cultural Resources), the analysis determined no built environment historical resources would be affected and no historic structures are present. However, the records search however, did reveal there are at least two large prehistoric sites with reported burials in close proximity to the project area. Therefore, possibility of undiscovered archaeological resources is considered high and native soil is considered highly sensitive. AB52 Consultation was requested and coordinated with the Gabrieleño Band of Mission Indians - Kizh Nation. The AB52 Consultation affirmed that the City of Irvine will continue to communicate any updates related to archaeological findings during the final design and construction phase; and coordinate their involvement, as appropriate if the presence of archaeological resources are encountered.</p>	<p>CR-1: Archaeological Monitoring: A Cultural Resources Monitoring Plan (CRMP) shall be developed and implemented for the Project based on the geotechnical investigation, boring analysis, and site evaluation performed during the final project design phase and prior to construction and grading activities. Based on these findings and recommendations, a qualified archaeologist shall be retained to oversee preparation of the CRMP, construction monitoring, and preparation of a final monitoring report.</p> <p>The qualified archaeologist shall develop the CRMP based on Project design plans and input from Native American representatives, and any other relevant information. The CRMP shall provide measures for cultural resources construction worker sensitivity training; delineation of sensitive areas; archaeological and Native American monitoring; assessment and treatment of unanticipated discovery of archaeological resources and human remains; notification protocols; procedures for Native American coordination and input and reporting; and curation of cultural materials recovered during monitoring. The CRMP shall be developed in coordination with the City of Irvine and Native American representatives if appropriate.</p> <p>The CRMP shall specify the roles and responsibilities of involved parties, and also shall specify the location, duration and timing of monitoring, which shall occur when excavation occurs in native undisturbed soils until a depth at which the potential to encounter buried archaeological deposits is unlikely. These areas will be determined following a review of the geotechnical investigation, boring analysis, and site evaluation from a qualified archaeological expert during the final project design phase, and prior to construction and grading activities. Imported fill is not considered sensitive for</p>	<p>City of Irvine, Department of Public Works and Transportation</p>	<p>Prior to construction and grading activities.</p>

Impacts	Mitigation Measure	Responsible/Monitoring Party	Monitoring Action or Implementation Stage
	archaeological resources. These areas shall be identified in maps to guide monitoring.		
	<p>CR-2: Treatment of Unanticipated Discoveries: The CRMP developed as part of Mitigation Measure CR-1 shall include protocols for the assessment and treatment of any unanticipated discoveries of archaeological resources during Project implementation, including procedures for assessing the significance of the resources according to the National Register and California Register. To accomplish this, the unanticipated discoveries component of the CRMP will contain:</p> <ul style="list-style-type: none"> a. Notification procedures b. Establishment of buffers for resources that will be avoided c. Documentation of resources on DPR forms d. Inspection of the resource(s) by a qualified archaeologist 		Prior to construction and grading activities.
	<p>CR-3: Treatment of Unanticipated Discovery of Human Remains: Due the reported human burials in the area, special emphasis in the CRMP should determine methods and protocols in the event human remains, unassociated funerary objects or grave goods are discovered. State Health and Safety Code Section 7050.5 requires that no further work shall continue at the location of the find until the County Coroner has made all the necessary findings as to the origin and distribution of such remains pursuant to Public Code Resources Code Section 5097.98.</p>		Prior to construction and grading activities, as part of the CRMP.

Impacts	Mitigation Measure	Responsible/Monitoring Party	Monitoring Action or Implementation Stage
<i>Hazards and Hazardous Materials</i>			
	<p>HAZ-1 Construction Surveys for Soils Containing Hazardous Materials and Aerially Deposited Lead: An ADL Site Investigation for exposed soils will be required (to include other potential contaminants of concern if suspected to be present – such as oil and grease, pesticides/herbicides, other potential pollutants) prior to grading and soil removal activities. The ADL investigation is required to properly characterize and profile soils that will be generated from the proposed Project for disposal purposes.</p>	City of Irvine, Department of Public Works and Transportation	Prior to construction and grading and soil removal.
	<p>HAZ-2 Construction Surveys for Striping Paint Containing Hazardous Materials and Lead-Based Paint: An LBP Site Investigation for exposed asphalt will be required (to include other potential contaminants of concern if suspected to be present – such as oil and grease, pesticides/herbicides, other potential pollutants) prior to grading and asphalt removal activities. The LBP investigation is required to properly characterize and profile soils that will be generated from the proposed Project for disposal purposes.</p>	City of Irvine, Department of Public Works and Transportation	Prior to construction and grading and soil removal.
<i>Public Services</i>			
<p>As noted in Section XV (Public Services), the proposed Project would require the relocation of an existing fire hydrant serving adjacent land use. In order to ensure adequate fire suppression capabilities and services, coordination with the City of Irvine and Irvine Ranch Water District would be needed in order to ensure that potential impacts are reduced to less than significant levels.</p>	<p>PS-1 Coordinate with Irvine Ranch Water District Prior to Removal/Relocation of Fire Hydrant: In advance of construction of the proposed Project, the Contractor (or City) will be required to coordinate with the Irvine Ranch Water District (IRWD) to ensure that temporary and permanent relocation of the existing fire hydrant along westbound Michelson Drive at Harvard Avenue is acceptable and that the fire hydrant will have sufficient fire flow capacity to meet the IRWD's requirements.</p>	<p>City of Irvine, Department of Public Works and Transportation</p> <p>Irvine Ranch Water District</p>	During the final project design phase, and prior to construction.

Impacts	Mitigation Measure	Responsible/Monitoring Party	Monitoring Action or Implementation Stage
<i>Tribal Cultural Resources</i>			
<p>As noted in Section V (Cultural Resources), the records search revealed there are at least two large prehistoric sites with reported burials in close proximity to the project area. Therefore, possibility of undiscovered archaeological resources is considered high and native soil is considered highly sensitive. AB52 Consultation was requested and coordinated with the Gabrieleño Band of Mission Indians - Kizh Nation. The AB52 Consultation affirmed that the City of Irvine will continue to communicate any updates related to archaeological findings during the final design and construction phase; and coordinate their involvement, as appropriate if the presence of archaeological resources are encountered. .</p>	<p>TCR-1: Native American Monitoring: The City of Irvine shall coordinate Native American monitoring with representatives who are traditionally and culturally affiliated with the Project site to support the monitoring as required by the Cultural Resources Monitoring Plan (CRMP) in Mitigation Measure CR-1. Native American representatives and/or monitors must possess necessary insurance and training to monitor for cultural resources in a construction and traffic areas. The provisions of the Native American monitoring plan will be included in the CRMP.</p>	<p>City of Irvine, Department of Public Works and Transportation</p> <p>Gabrieleño Band of Mission Indians - Kizh Nation</p>	<p>During construction and grading activities.</p>