SECTION 12.0
CLARIFICATIONS AND REVISIONS TO THE DRAFT MASTER ENVIRONMENTAL IMPACT REPORT

Note to reader:

Section 12.0 consists of clarifications and revisions to the draft *Master Environmental Impact Report* (*Master EIR*) that have resulted from responses to comments received from agencies and the public. Section 13.0 that follows contains comments received on the draft *Master EIR* and responses in tabular format. The draft *Master EIR* was released for a 45-day public review period between May 16, 2002, and July 2, 2002. The public review period was extended an additional 75 days to close on September 16, 2002. The City of Pasadena Department of Planning and Development (City) received more than 600 letters of comment on the *draft Master EIR*.

The City of Pasadena is located approximately 10 miles northeast of the City of Los Angeles in the County of Los Angeles (See Figure 2.1-1, *Regional Map*, taken from the draft *Master EIR*). The approximately 1,000-acre area proposed *Arroyo Seco Master Plan project* (proposed project) area lies within the City of Pasadena and is partially bounded on the north by the Angeles National Forest, on the northeast by the community of Altadena in the unincorporated area of the County of Los Angeles, on the south by the City of South Pasadena, and on the southwest by the Highland Park community of the City of Los Angeles. To the west, beyond the western boundary of the City of Pasadena, is the community of Eagle Rock in the City of Los Angeles. To the northwest, also at the western boundary of the City of Pasadena, are the cities of Glendale and La Cañada-Flintridge.

The proposed project area includes three subareas known as Hahamongna Watershed Park (approximately 300 acres, part of the Upper Arroyo Seco), the Central Arroyo Seco (approximately 550 acres), and the Lower Arroyo Seco (approximately 150 acres). The Upper Arroyo Seco includes the approximately 300-acre Hahamongna Watershed Park Master Plan area plus an additional 1,000 acres north of the Jet Propulsion Laboratory (JPL) bridge. These three subareas are shown in Figure 2.1-2, *Topographic Map*, taken from the draft *Master EIR*. There are four primary routes of travel in the vicinity of the Arroyo Seco. State Route 2 (Angeles Crest Highway) runs northeast-southwest, and crosses the northern portion of the Upper Arroyo; U.S. Interstate 210 (Foothill Freeway) generally runs east-west, crosses the Arroyo Seco north of the Central Arroyo Seco, and divides the Central Arroyo Seco and Hahamongna Watershed Park; State Highway 134 (Ventura Freeway) runs east-west and crosses the Arroyo Seco between the Central Arroyo Seco and the Lower Arroyo Seco; and State Route 110 (Pasadena Freeway) runs north-south along the south end of the Lower Arroyo Seco. The proposed project area is bounded on the north by the San Gabriel Mountains and to the west by the San Rafael Hills. The Arroyo Seco passes approximately north-south through the length of the proposed project area and continues to its southern confluence with the Los Angeles River

near the downtown area of the City of Los Angeles. The Master Plan location (see Figure 2.1-3, *Vicinity Map*, taken from the draft *Master EIR*) appears on the U.S. Geological Survey (USGS) 7.5-minute series Pasadena quadrangle (Township 2 North, Range 12 West, Section 31, and Township 1 North, Range 12 West, Section 5, and portions of the San Pascual land grant boundary) and Los Angeles topographic quadrangle (Township 1 North, Range 12 West, within the San Pascual land grant boundary).

The Upper Arroyo Seco, which includes Hahamongna Watershed Park, extends approximately 4 miles from its northern to southern boundary. It is bounded on the north by the Angeles National Forest and on the east by the community of Altadena in the unincorporated area of the County of Los Angeles. It is bounded on the south by the Foothill Freeway and Devil's Gate Dam and on the west by the City of La Cañada-Flintridge. The analysis of the Upper Arroyo Seco is limited to the 300-acre Hahamongna Watershed Park; the mailing address is 4550 Oak Grove Drive.

The Central Arroyo Seco, which includes the Rose Bowl facilities, extends approximately 2.5 miles from north to south and is bounded on the north by the Foothill Freeway and Devil's Gate Dam, and on the east by the City of Pasadena. It is bounded on the south by the Ventura Freeway and the Holly Street Bridge and on the west by the City of Pasadena. The Rose Bowl, a key feature of the Central Arroyo Seco, is located at 1001 Rose Bowl Drive. The Central Arroyo is near the City's western boundary, shared with the City of Los Angeles community of Eagle Rock and the City of Glendale.

The Lower Arroyo Seco, approximately 1.75 miles in length, is bounded on the north by the Ventura Freeway and the Holly Street Bridge, on the east by the City of Pasadena, on the south by the City of South Pasadena, and on the west by the City of Pasadena. La Casita del Arroyo Clubhouse, a feature of the Lower Arroyo Seco, is located at 177 South Arroyo Boulevard. The Lower Arroyo is near the City of Pasadena's western boundary with the City of Los Angeles communities of Eagle Rock and Highland Park, and the City of South Pasadena.

Format of Draft Master EIR Classifications and Revisions

The following pages include a copy of each page of the draft *Master EIR* for which clarifications and revisions have been undertaken due to comments received during the public review period. Information being deleted from the draft *Master EIR* is indicated as ~~strikeout~~. Information being added in the response to agency and public comments on the draft *Master EIR* is indicated in **bolded and underlined text.** This approach was taken in an effort to preclude the need for the reproduction of Volumes 1 and 2 of this *Master EIR*. Section 13.0 of the Final MEIR contains the lists of agencies and private organizations that have received either the *Notice of Availability* (NOA) of the draft *Master EIR* or received a copy of the draft *Master EIR*. Section 13.0 also the lists of all agencies and organizations that prepared a comment letter. Section 13.0 of this final *Master EIR*

also contains a Response to Comments Matrix, which contains all the comments received during the public review period and the responses to the comments.

S.3 ISSUES TO BE RESOLVED

The issues to be resolved by the City include the choice among alternatives, including the proposed project, and whether or how to mitigate the significant environmental effects of the proposed project.

S.4 POTENTIAL IMPACTS FOUND NOT TO BE SIGNIFICANT

In the analysis undertaken in support of the *Initial Study,*[1] the public scoping process, and the Notice of Preparation (NOP), the City determined that there are several environmental issue areas pursuant to CEQA that are not expected to have significant impacts resulting from implementation of the proposed project. These issue areas are agricultural resources, land use and planning, and population and housing. These issue areas were not carried forward for detailed analysis in this draft *Master EIR*. Therefore, these issues are briefly described below.

Agricultural Resources: The zoning for the proposed project area does not include any agricultural uses, and surrounding land use does not include farmland. No prime farmland, unique farmland, or farmland of statewide importance is present. No significant impacts on agricultural resources are anticipated.

Land Use and Planning: The proposed project would not divide or disrupt the physical arrangement of an established community; neither would it produce a significant impact on applicable land use plans or policies adopted by state and federal agencies. Implementation of the proposed project would not result in impacts on any applicable habitat conservation plans or natural community conservation plans because no such plans exist. Therefore, improvements within the proposed project area would not be expected to constitute a substantial alteration of the present or planned land use for the area. No significant impacts to land use and planning are anticipated.

Population and Housing: No new residential homes are planned as a result of the proposed project. The proposed project elements contain guidelines for new roads and recreational activities that are not expected to impact population and housing growth in the area. The proposed project site is contained within existing designated open space boundaries, and implementation of the proposed project would not be expected to displace housing. Improvements within the proposed

[1] City of Pasadena, 2000. *Initial Study Arroyo Seco Mater Plan Project.* Contact: Department of Planning and Permitting, 175 North Garfield, Pasadena, CA 91109. Prepared by: Sapphos Environmental Inc., 133 Martin Alley, Pasadena, CA 91105.

project area would not be expected to affect existing housing or create demand for additional housing. No significant impacts to population and housing are anticipated.

S.5 SUMMARY OF IMPACTS

The analysis undertaken in support of this draft *Master EIR* has determined that impacts on ~~aesthetics~~, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, mineral resources, noise, public services, recreation, traffic and transportation, and utilities and service systems could be mitigated below the level of significance. There would be a short term impact on air quality during construction related to nitrogen oxide (NOx) and particulate matter greater then 10 microns in diameter (PM-10) emissions. Table S.6-1, *Summary of Impacts,* presents the impacts related to each issue area analyzed that would be expected to result from implementation of the proposed project. Table S.6-1 also presents mitigation measures and level of significance after mitigation for each issues area analyzed in the draft *Master EIR*.

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	specifications for the relocation of utilities. Geologic and geotechnical investigations conducted for the proposed relocation of utilities shall include but not be limited to: • Analysis of slopes in the project area and proposed project slope stability projections • Soils and subsurface conditions • Erosion potential and erosion and sedimentation controls needed for the proposed project • Data and design recommendations for excavation and trench stability • Results of compaction testing and recommendations for proposed project compaction requirements Remediation measures for the proposed relocation of utilities shall include but not be limited to the following, as applicable: • Soil compaction or recompaction requirements • Soil stability to be used in construction excavation design • Erosion and sedimentation controls and locations Remediation measures to minimize risk shall be specified in a site-specific report of geotechnical investigation approved by a certified engineering geologist. Completion of this measure shall be monitored and enforced by the City of Pasadena Department of Public Works.	eliminated. However, the City of Pasadena considers risk of loss, injury, or death, to people or property, to be reduced below the level of significance when measures to minimize risk are delineated in a site-specific geotechnical investigation, approved by a certified engineering geologist and implemented as specified. Therefore, compliance with Measures Geology 3 would reduce impacts related to geological hazards to below the level of significance.
The proposed project has the potential risk of loss or injury from geological hazards In conjunction	**Measure Geology – 4** The City of Pasadena shall reduce the potential risk	Implementation of the proposed project components would conform to all earthquake-

with the multi-level parking structure, Flint Wash Bridge, and the north bridge.	of loss or injury from geological hazards in conjunction with multi-level parking structure, Flint Wash Bridge, and the north bridge through the conformance to all existing building codes and regulations. Construction and operation impacts to geology and soils shall be minimized through the investigation and application of standard geotechnical remediation measures into the plans and specifications for the proposed parking structure, Flint Wash Bridge and the north bridge. **Work on the park access road to Johnson Field and the reconstruction of same would require standard construction techniques. The grading and slope preparation methods and techniques that can be used to prevent severe erosion and to stabilize the west-facing slope along the park access road are highly dependent on the specific conditions present. The geologic material is older alluvium/soil. Runoff from above could be prevented from moving down the slope by a berm/swale or a short wall along the west side of the road, although several erosion controls are available for approval by the City of Pasadena Department of Public Works in conformance with the California Uniform Building Code. The appropriate measure will be determined by a site-specific geotechnical study report.**	related standards and guidelines. However, it should be noted that earthquakes are an unavoidable consequence of living in southern California. There are no mitigation measures that can protect the public from potential hazards associated with the infrequent large, damaging earthquake. Exposure to strong ground motion and possible resulting damage to structures can not be eliminated. However, the City of Pasadena considers risk of loss, injury, or death, to people or property, to be reduced below the level of significance when measures to minimize risk are delineated in a site-specific

	• proposed project slope stability projections • Soils and subsurface conditions • Need for and type on liners to be designed and used for the Casting Pond • Erosion potential and erosion and sedimentation controls needed for the proposed project • Results of compaction testing and recommendations for proposed project compaction requirements Remediation measures for the proposed bank stabilization measures in the casting pond and the Camel's Hump shall include but not be limited to the following, as applicable: • Optimum slope design for stability and safety • Soil compaction or recompaction requirements • Liner types and locations for the Casting Pond • Soil stability to be used in construction excavation design • Erosion and sedimentation controls and locations Remediation measures to minimize risk shall be specified in a site-specific report of geotechnical investigation approved by a certified engineering geologist. Completion of this measure shall be monitored and enforced by the City of Pasadena Department of Public Works. **Every reasonable effort shall be made, within the context of the design and remediation measures development process for stabilization of the Camel's Hump**	reduce impacts related to geological hazards to below the level of significance.

	area, to create a "natural" appearance that transitions from the existing or modified Arroyo Seco channel to any slope stability remediation needed for the Camel's Hump.	
Implementation of the proposed project would have the potential risk of loss or injury from the failure or collapse of the proposed ADA Bridge in the Lower Arroyo Seco.	**Measure Geology – 8** The City of Pasadena shall reduce the potential risk of loss or injury from the failure or collapse of the proposed ADA Bridge in the Lower Arroyo Seco though conformance with all existing building codes and regulations. Construction and operation impacts to geology and soils shall be minimized through the investigation and application of standard geotechnical remediation measures into the plans and specifications for the proposed ADA Bridge in the Lower Arroyo Seco.	Implementation of the proposed project components would conform to all earthquake-related standards and guidelines. However, it should be noted that earthquakes are an unavoidable consequence of living in southern California. There are no mitigation measures that can protect the public from potential hazards associated with the infrequent large, damaging earthquake. Exposure to strong ground motion and possible resulting damage to structures can not be eliminated. However, the City of Pasadena considers risk of loss, injury, or death, to people or property, to be reduced below the level of significance when measures

The conceptual grading plan would reduce the effects of the existing water conservation on riparian vegetation below the 1,040.5 foot msl elevation. Water conservation operations, including holding water up to the 1,0405.5 foot msl elevation, has the potential to reduce habitat ~~volves~~ **values** in riparian habitat, which cannot tolerate inundation of the root crown of native trees in excess of two weeks. Implementation of the conceptual grading plan would require an agreement between the City and LACDPW regarding operation of the debris pool and sediment removal.

2.3.1.5.1 Sediment and Debris Management

The minimum capacity for flood management is the volume below the spillway floor, which is 1,400 acre-feet (2 debris events). This minimum capacity must be maintained. Therefore, as sediment inflow varies from year to year, and as the total volume of inflowing sediment decreases the capacity to the minimum 1,400 acre-feet, sediment must be removed. The grading plan would provide a proposed maximum capacity of 1,894 acre-feet. This grading plan would have an associated 69-acre inundation area, at an elevation of 1,040.5 feet msl. The difference between this maximum capacity and the minimum (1,400 acre-feet) equals 5.5 years of the historical annual average inflow of 145,200 cubic yards of sediment.

The proposed flood management program would require debris and sediment removal of approximately 3,000 cubic yards each summer to maintain and/or restore the dam's lowest opening, the sluice gate. This sediment and debris management plan would permit the continuing operation of the flow assisted sediment transport (FAST) program, which has accounted over the years for the removal of approximately 20 percent of the inflowing sediment.

Because drought years transport small amounts of sediment, and large sediment transport events occur unpredictably, sediment would continue to be removed from the park on an as-needed basis. This plan would allow for sediment removal to occur in consecutive years. Based on a review of historical data, it is anticipated that sediment removal would be anticipated to occur at intervals of three to seven years.

One of the goals of the master plan is to establish a permitting process that would allow sediment removal to occur on an as-needed basis. This area below 1,030 feet msl, the debris and sediment basin (i.e. water conservation pool), would be shaped not only to facilitate the removal of deposited sediment, but also to influence where sediment is deposited. The conceptual grading proposes to shape the basin with maximum slopes of 3:1 slope. This would maximize the capacity and allow the space to be easily maintained. At elevations of 1,030 feet msl and below, newly deposited sediment, debris, and emerging vegetation overall be routinely excavated. With an incoming storm event, it is ideal to have water at elevations of 1,020 to 1,030 feet msl. This would cause sediment-laden water to slow as it enters the water conservation pool, thereby dropping out the sediment below the

established habitat and upstream of the dam, so as to not affect the dam's control features. If water is at 1,040.5 feet msl (spillway height), then sediment would be deposited in the newly widened stream corridor, and would inundate the streambed riparian plant community. As a storm event passes and water continues to enter the basin, it would become less sediment laden. When this occurs, water would be allowed to accumulate to the maximum capacity. This would provide for periodic inundation of the established willow and riparian habitat, with nutrients and water, and accumulate water for the proposed pump-back (See Section 2.3.1.4.2, *Pump-Back System*) for water conservation purposes.

2.3.1.8 West Lake

This project element establishes a new 4.8-acre lake environment on the west side of the park, east of the overnight camping area. Construction of the new lake is anticipated to require moving 94,200 cubic yards within the lake site, all coming from the Stream Channel Widening project (See Section 2.3.1.18.1.4). The overall lake environment would be approximately 4.8 acres in size. The actual surface area in water would cover approximately 2.7 acres of aquatic habitat and a small inaccessible island of 0.3 acre would be provided for protection of wildlife. The lake would create a wetland of 1.8 acres around the aquatic habitat, provide cultural and habitat interpretation, and provide native plant gathering materials for Native American crafts and medicinal needs. Material removed to create the lake would be used to create the raised south and east sides of the lake. Approximately 30 percent of the lake remains to be excavated, since this area was partially excavated during past mining operations.

Access to the lake for passive recreational activities such as bird watching and fishing would only be allowed around 50 percent of this west lake's perimeter (the eastern edge of this lake would be left for wildlife and human access would be discouraged). Access would be controlled with 800 square feet of raised walkways and overlooks. The observation points would be constructed to sit just above the water's edge so children could actually touch the water but be protected by a barrier rail around the edge of the walkway or overlook. The lake would be fully lined to minimize percolation and would be of a depth to sustain a natural aquatic ecosystem (estimated to be 30 feet at lake's center). The design shall incorporate a shallow shelf at the lake's edge for wetlands habitat and safety. The lake would be fed from diverted stream water, and/or retained flood water (depending on the time of year) that is pumped back to the spreading basins, working its way to the lake by overflowing each basin until it gets to the lake (this would only happen when there is a lot of water in the spreading basins). Infrastructure for this distribution system would be necessary. Depending on stream flows and the amount of water to be pumped back, it is probable that the West Lake would need domestic water to maintain its surface level due to evaporation; aeration would be used to remove the chlorine.

For safety reasons, the lake would be designed with a shallow shoreline of a 6:1 gradient. A ramp would be provided on one side for maintenance access to the lake. Fishing would be allowed; swimming and boating would not be allowed.

Prior to implementation of this element of the project, the City would be required to develop a plan for the prompt removal and proper disposal of any animal carcass. Removal and disposal of dead animals from the lake is a preventative measure that will ensure the health of the resident wildlife.

2.3.1.13 East Lake

This project establishes a new lake on the east side of the park, north of Johnson Field and the new eastside multipurpose field. The overall lake environment would be approximately 3.6 acres in size. The actual surface area in water would cover approximately 2.3 acres of aquatic habitat and a small, inaccessible .3-acre island would be provided for protection of wildlife. The lake would create 1 acre of wetland, provide cultural and habitat interpretation, and provide native plant gathering materials for Native American crafts and medicinal needs.

Access to the lake for passive recreational activities such as bird watching and fishing would be controlled with raised walkways and overlooks at various points around the entire lake perimeter. The accesses would be constructed to sit just above the water's edge so children could actually touch the water but be protected by a barrier rail around the edge of the walkway or overlook. The lake would be fully lined to minimize percolation and would be of a depth to sustain a natural aquatic ecosystem (estimated to be 30 feet at the lake's center). The design would incorporate a shallow shelf at the lake's edge for wetlands habitat and safety. The lake would be fed from diverted stream water, and/or retained flood water that is pumped back to the spreading basins, working its way to the lake by overflowing each basin until it gets to the lake. Infrastructure for this distribution system would be necessary. When necessary, due to evaporation, treated un-chlorinated water from the VOC water treatment plant would be pumped directly into the east lake to maintain its surface level.

For safety reasons, the lake would be designed with a shallow shoreline of a 6:1 gradient. A ramp would be provided on one side for maintenance access to the lake. Fishing would be allowed; swimming and boating would be prohibited.

Prior to implementation of this part of the project, the City would be required to develop a plan for the prompt removal and proper disposal of any animal carcass. Removal and disposal of dead animals from the lake is a preventative measure that will ensure the health of the resident wildlife.

aquatic ecosystem (estimated to be 30 feet at the lake's center). The design would incorporate a shallow shelf at the lake's edge for wetlands habitat and safety. The lake would be fed from diverted stream water, and/or retained flood water that is pumped back to the spreading basins, working its way to the lake by overflowing each basin until it gets to the lake. Infrastructure for this distribution system would be necessary. When necessary, due to evaporation, treated un-chlorinated water from the VOC water treatment plant would be pumped directly into the east lake to maintain its surface level.

For safety reasons, the lake would be designed with a shallow shoreline of a 6:1 gradient. A ramp would be provided on one side for maintenance access to the lake. Fishing would be allowed; swimming and boating would be prohibited.

2.3.1.14 Sunset Overlook

The Sunset Overlook would be located on the east side of the park, immediately north of the Windsor/Ventura intersection. This approximately 0.5 acre consists of west facing promontory outlook, providing an overview of the basin from this side of the park. The Sunset Overlook effort would consist largely of a clean-up and restoration project: the area would be cleared of all weeds, brush and dead trees; the area would be planted as specified in the habitat restoration plan. Picnic tables (4), seating and interpretive signage would be provided at this site for visitors to learn of the area and to understand what they are viewing from this location. The overlook is located at the main eastside park entrance. The project element would most greatly serve as an inspirational and educational opportunity. The site would overlook water conservation elements of the park, habitat restoration areas of the park as well as stream corridor restoration in the park. The site would provide parking for 1 bus or 4 cars.

2.3.1.15 Gabrielino Trail Area

2.3.1.15.1 Convert JPL Parking to Public Parking

The existing parking lot on the ~~coast~~ **east** side of the arroyo, leased for exclusive use by JPL, would be converted to public use. The parking lot would continue to have a capacity of ~~600~~ **200** parking spaces.

2.3.1.15.2 New Public Restroom

A new restroom would be constructed adjacent to the proposed park visitor parking lot at the north end of the new public parking lot and serve park visitors using HWP as well as those visitors headed into the Angeles National Forest. It would have one urinal and one stall for men and two stalls for

women and meet current ADA-accessibility standards. It would have a small storage area. A public telephone would be located at the structure. This restroom may need a sewage lift station with force main to the JPL gravity lines across the JPL bridge.

The portion of the perimeter trail east of the relocated disc golf area and the new "Sycamore Grove Field" would extend north to the edge of the west lake, around the lake on the western edge and north along the western edge of the new west side spreading basins to the west side JPL parking lot.

Another shared juncture of the perimeter trail is the section from the southern end of the JPL west side parking lot (the site of the proposed 1,200 space parking structure) all the way north to the JPL bridge. This section of trail would be shared with a separately paved bicycle way that would allow bicycle riders to travel from/to the paved road within the Oak Grove area (See Section 2.3.1.11.2, *West Arroyo Inner Park Access*) and along this stretch of trail, across the JPL bridge and up into the Angeles National Forest Trail system or into the JPL campus or south on the eastside park road and out the eastside park entrance at Windsor/Ventura.

2.3.1.16.3 North Bridge Crossing

The Northerly Perimeter Trail Bridge Crossing would be made of a style and material similar to the Flint Wash Bridge crossing and would serve as the northerly connection between the westside and eastside parks. Hikers, equestrians, and maintenance/emergency vehicles would share the crossing. The bridge would span 150 feet and be 12 feet wide. The bridge would also serve as a utility crossing for water and power lines needed for eastside uses in which maintenance and emergency vehicles would share the crossing. Appropriate signage would be posted. This bridge would provide the missing link in the park perimeter trail system of all-weather, all-year access from the west side of the park to the east side for park users, emergency and maintenance vehicles.

The eastside segment of the perimeter trail is on the western edge of spreading basins 3 through 12 (new spreading basin numbers), the east lake, the new multi-purpose field and Johnson Field. This alignment would be shared as a flood maintenance access road as it extends south, to the dam.

2.3.1.16.4 East Rim Trail

Development of the East Rim Trail for pedestrians and equestrians consists of enhancing the existing ~~train~~ **trail** that currently extends from the VOC WTP to the Arroyo Well and from the Arroyo Well to the Altacrest Trail, with construction of approximately 2,600 linear feet of new trail for a total of 6,300 linear feet. This would be graded four feet wide to accommodate pedestrians and equestrians. Construction of the East Rim Trail would require approximately 1,200 cubic yards of cut and fill to be balanced onsite. This project would extend the existing trail that roughly follows the upper rim of the eastside slope. The trail would be constructed to the bottom of the mid-slope parallel to the road leading to Johnson Field. It would cross the entry access road close to the

proposed Interpretive Area and skirt the backside of the existing parking lot, joining up to the existing Altacrest Trail. To further clarify, this is a new trail going from the VOC WTP to the Arroyo Well as well as the reconstruction of an old trail from the Arroyo Well to the northern east/west connecting trail.

2.3.1.16.5 Trail Connections from East Rim Trail to Basin Perimeter Trail

Four trail connections would be provided along the east side linking the upper rim trail to the lower perimeter trail. Each of the trail connections would be four feet wide to accommodate pedestrians and equestrians. It is anticipated that cut and fill can be balanced within the segments. Construction of the four trail connections would require approximately 30 cubic yards of cut and fill to be balanced onsite. These connections would allow pedestrians and equestrians to access

naturalized. Sycamore Woodland would also be planted around the perimeter of the east and west spreading basins and around the edges of the multipurpose play areas and lakes.

2.3.1.18.1.13 Flood Management and Water Conservation Pool 1

The existing riparian southern willow scrub habitat below the 1,040 feet msl elevation would be expected to degenerate and begin to die as soon as water conservation practices are implemented. With implementation of the flood management and conservation pool, these areas would be periodically inundated during the winter season. The habitat below the 1,030-foot msl elevation would be completely submerged for varying lengths of time. The 1,030 to 1,040-foot msl elevation zone around the water conservation pool would be quality habitat that could be subject to several inundations a year. Emerging vegetation, debris, and sediment would need to be periodically removed from the newly established water conservation pool per the sediment management guidelines that would be established by LACDPW. A phased operation would permit the area elevated above the floodplain (elevation 1,040 feet msl), and the perimeter of the water conservation pool (elevation 1,030 to 1,040 feet msl), to become established with southern willow scrub habitat. The existing riparian southern willow scrub areas (below elevation 1,030 feet msl) would be removed in a coordinated sediment and debris removal operation, establishment of sycamore woodland between 1,030 to 1,040 feet msl.

2.3.1.18.~~1~~**2** *Habitat Establishment and Restoration Projects listed by Plant Community.*

Table 2.3.1.18.2-1, *Existing and Proposed Natural Plant Communities and Landscaped/Developed Areas within Hahamongna Watershed Park,* summarizes the existing and proposed area of natural plant communities and landscaped/developed areas within Hahamongna Watershed Park**.**

[1] Ibid.

ruderal plant community. A total of 3.0 new acres of sage scrub would be established along the slope east of the spreading basins. The creation of the westside spreading basins would utilize "Landform Grading" principles to improve habitat for this and other plant communities.

East Spreading Basins (Habitat Project No.3c in Section 3.3 of the HWP):1 The existing 4.9 acres of sage scrub, at the East Spreading Basin, would be increased by 1.1 acres to a total of 6.0 acres. The equestrian trail on the west side of the existing spreading basins traverses some of the best old alluvial fan sage scrub in the area. Project 3c involves spreading basins 5 through 10 on the east side. The existing equestrian trail would be abandoned and relocated to the spreading basins maintenance road (asphalt to be removed). The area occupied by the existing trail would be restored with sage scrub. The embankment of the new ponds would be planted with sage scrub species.

Stream Channel Widening (Habitat Project No.4 in Section 3.3 of the HWP):2 There is currently no sage scrub habitat at this location of the stream channel. On the western slope of the stream channel project, 2.5 acres of sage scrub habitat would be established. The stream on its western edge would be widened for a new total stream channel width of approximately 200 feet. Both the east and west sides of the stream channel would be restored with sage scrub habitat.

Sunrise Overlook (Habitat Project No.9 in Section 3.3 of the HWP): There are currently 1.9 acres of sage scrub habitat in this project area, much of which was established by hydro-seeding when the freeway access ramp was eliminated from this location. A total of 0.9 acre of this habitat would be converted to oak woodland habitat leaving 1 acre of sage scrub.

Dam Area: This habitat project area currently has 13.2 acres of sage scrub. Although the acreage of habitat would remain the same, 0.2 acre of this habitat would be removed as a result of the spillway observation overlook project, but 0.2 acre would also be added as a result of habitat establishment on the slope adjacent to the dam spillway. The existing 12.8 acres remaining would receive habitat restoration.

Eastside Park: A total of 11.2 acres of sage scrub make up the eastside park area. A total of 1 acre of sage scrub would be eliminated due to the following projects: a) 0.5 acre would be converted to oak woodland east of the eastside lake and playfield; b) 0.3 acre would be lost due to the realignment of the eastside parking/access road project; and c) 0.2 acre would be lost to the east rim trail extension

1 Ibid.

2 Ibid.

project. The total remaining area in sage scrub within the Eastside Park would be 10.2 acres of restored habitat.

Storm Drain Improvements-JPL: A total of 7.0 acres of sage scrub exist adjacent to JPL in the vicinity of the westside storm drains. A total of 2.0 acres of sage scrub would be converted to southern willow scrub at the drainage outfalls just north of the westside parking lot (Habitat Project No. 2 in Section 3.3 of the HWPMP)3 along the JPL border where exotic species need to be removed, debris collected and disposed of. These particular drainage outfalls drain through existing sage scrub and some willows. Due to wet conditions caused by urban runoff, this ~~0.2~~ **2.0** acre area

3 Ibid.

could be placed) would be used where appropriate. Chain-link fencing would be used in areas where security fencing is needed but aesthetics are not an issue. Decorative security fencing would be recommended at three primary locations:

- At the south end of the park, from the west side of Flint Wash, north to the Gould Canyon Trail at Foothill Blvd.
- At the Windsor-Ventura entrance between Mountain View and Ventura, along the west side of Windsor.
- At the end of Altadena Drive.

Gates would be provided at the westside tunnel entrance under Oak Grove Drive, to prevent entry onto the dam from the new parking lot at Oak Grove Drive and Linda Vista during park **closure. The use of gates and fencing will not interfere with access into and out of the Angeles National Forest via the Gabrieliño Trail.**

Chain-link security fencing would be provided at the end of La Cañada Verdugo Road and Oak Grove Drive from the Woodbury on-ramp to Flint Wash.

TABLE 2.5-1 (CONTINUED)
RELATED PROJECTS

Map No.	Address//Location	Land Use	Size Dwelling Units (du) Square Feet (sf)
60	140 North Oak Knoll Avenue	Condominium	72 du
61	St. Francis High School Expansion	Performing Arts	314 seats
62	La Canada Flintridge Downtown Village Specific Plan	Mixed Use	10
63	Foothill Boulevard and Commonwealth Avenue	Retail Restaurant	2,240 sf 2,240 sf

2.6 PROJECT ALTERNATIVES

Under CEQA, a range of reasonable alternatives must be included in an EIR that would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effect of the project (*CEQA Guidelines*, Section 15126, sub. D). As a result of the project formulation process, the City of Pasadena explored alternatives to the proposed project to assess their ability to meet most of the objectives of the project and reduce significant effects of the project. Alternative projects recommended by the scoping process were evaluated in light of the project objectives and their ability to reduce significant impacts as described in Section 4.0 of this draft *Master EIR*. Three project alternatives required under CEQA have been carried forward for detailed analysis in this draft *Master EIR*. The alternatives that were carried forward for detailed analysis included

- No Project
- Oak Grove Multi-use Play Field
- East/West Parking Solutions
- Two East Side Parking Structures
- No Impact on Designated Critical Habitat
- **Staff Recommended Alternative**

These alternatives are described and analyzed in Section 4.0 of this draft *Master EIR* **and in Appendix A to the final *Master EIR*.**.

not designated an official Scenic Highway, construction phases would be expected to result in short-term impacts to scenic resources during construction. There will be no long-term impacts to scenic resources as a result of the proposed project, nor will there be significant long-term impacts in conjunction with related projects in the vicinity of the Arroyo Seco.

3.1.4.1 Hahamongna Watershed Park

The Hahamongna Watershed Park element of the proposed project, in addition to the related projects in the vicinity of the Arroyo Seco, will not result in cumulative significant environmental impacts.

3.1.4.1.1 Significant Impacts

The proposed improvements to the Upper Arroyo Seco will be consistent with Policy 9.2 of the *City of Pasadena Comprehensive General Plan*.[1] The components of the HWP element of the Arroyo Seco Master Plan would involve an increase in parking: a 6,000-square-foot parking lot at the intersection of Linda Vista and Oak Grove Drive with an overlook to the Devil's Gate Dam spillway, expansion of the existing 100-space parking lot immediately east of the Oak Grove Field to 220 spaces, new parking areas to accommodate overnight campers in the supervised overnight camping area, an increase in parking spaces in the equestrian staging area, paving of the dirt shoulders adjacent to the Johnson Field access road will be paved to create parking bays along the access road to accommodate 200 vehicles and two buses, and at the intersection of Arroyo Well and Johnson Field Road, parking for two buses and 10 cars. The new and expanded parking lots would include safety lights and would provide a new source of light to the area that may affect day or nighttime views, requiring the consideration of mitigation measures.

The HWP element of the Arroyo Seco Master Plan would include rehabilitation of existing restrooms or construction of new restrooms appurtenant to six distinct use areas in the Upper Arroyo Seco: public restrooms at the new dam keeper's quarters, public restrooms at Sycamore Park, restroom renovation in the equestrian staging area, a new restroom facility and storage at Oak Grove Field, and a new public restroom adjacent to the proposed park visitor parking lot at the north end of the Gabrieliño Trail area. Construction and renovation of restrooms would create a new light source and would have the potential to impede views, requiring the consideration of mitigation measures.

The HWP element of the Arroyo Seco Master Plan would include the expansion or rehabilitation play field in five district areas of the Upper Arroyo Seco: a new 2-acre multi-purpose field at Sycamore Grove; expansion of the 56,000-square-foot Johnson Field to accommodate a youth-

[1] Ibid.

size soccer field, open play, picnic area, and other group/non-group activities; on the site of former settling basin number 13 (north at Johnson Field, conversion of basin), to a accommodate a 49,000-square-foot youth-size soccer field, open play, picnic area, and other group/non-group activities; creation of an 11,000-square-foot play area similar to the West Side Play Area in the vicinity of the East side multipurpose fields. The use of these fields would be expected to create a new source of light, requiring the consideration of mitigation measures.

The construction of a six-level parking structure within the Upper Arroyo Seco would degrade the visual characteristics of the proposed site or its immediate surroundings, this constituting a significant impact to aesthetics. The HWP element in the Arroyo Seco Master Plan would replace existing surface parking lots with a six-level parking structure capable of accommodating the existing ~~1,700~~ **1,200** parking spaces.

The new south entrance would involve the addition of 20 parking spaces. The new parking would include safety lights and a new source of light to the area that would have the potential to affect nighttime views, requiring the consideration of mitigation measures.

A 1,000-square-foot public restroom and storage area would be added onto the roving archers clubhouse, and the public restroom near the proposed new south entrance will be demolished and replaced. The security lighting provided in association with the construction and renovation of restrooms would create a new light source and may affect nighttime views, requiring the consideration of mitigation measures.

3.1.4.3.2 Issues Found Not to Be Significant

Many of the elements of the proposed project would be consistent with the defining visual characteristics or qualities of the site and its surroundings. These same improvements would not create a new source of light or glare. Therefore, these improvements would not be expected to result in significant impacts to aesthetics:

- La Casita del Arroyo grounds improvements
- Improvements to the casting pond area
- Northern archery range improvements
- Southern archery range improvements
- Bridge crossing at archers clubhouse
- Improvement of the existing multi-use Westside trail
- Improvement of the existing multi-use Eastside trail
- Improvement of Camel's Hump loop trail
- Installation of new pedestrian bridge
- Improvement and restoration of Westside pedestrian trail, Arroyo Boulevard rim trail, and neighborhood trail access
- Memorial Grove restoration

3.1.4.4 Rose Bowl Use Plan

The Rose Bowl Operating Company (RBOC) has recommended that the City Council approve a Rose Bowl Use Plan[1] that would allow 25 major events, or displacement events, to be permitted annually. ~~There have been at least this many events in each of the last nine years; therefore, t~~ **T**he authorization of the additional events would be expected to continue the existing pattern of night

[1] City of Pasadena, 14 August 2000. Agenda Report to the City Council: *Rose Bowl Use Plan from Rose Bowl Operating Company.* Contact: 100 N. Garfield Avenue, Pasadena, CA 91109.

lighting at the Rose Bowl and associated parking areas. An increase in events scheduled at the Rose Bowl would not be expected to result in significant impacts to aesthetics. The Rose Bowl Use Plan will not result in significant cumulative impacts to the Arroyo Seco.

3.1.4.5 Design Guidelines

The *Arroyo Seco Design Guidelines* would provide the City, through its Design Commission, a tool for ensuring the application of a unifying set of criteria for the site development improvements set forth in the proposed project. The criteria in the *Arroyo Seco Design Guidelines* would be expected to protect the visual characteristics of the Arroyo Seco; therefore, there would be no expected significant impact on recreation.

Section 9 of the Federal ESA prohibits the "take" of species listed by the USFWS as threatened or endangered. As defined in the Federal ESA, taking means "...to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in such conduct." Recognizing that take cannot always be avoided, Section 10(a) of the Federal ESA includes provisions for takings that are incidental to, but not the purpose of, otherwise lawful activities. Specifically, Section 10(a)(1)(A) permits (authorized take permits) may be issued for scientific purposes (i.e., universities). Section 10(a)(1)(B) permits (incidental take permits) may be issued if taking is incidental and does not lead to jeopardy of the species.

Section 7(a)(2) of the Federal ESA requires all federal agencies, including the USFWS, to evaluate the proposed project with respect to any species proposed for listing or already listed as endangered or threatened and their critical habitat, if any is proposed or designated. Federal agencies must undertake programs for the conservation of endangered and threatened species and are prohibited from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its "critical habitat."

As defined in the Federal ESA, "individuals, organizations, states, local governments, and other non-federal entities are affected by the designation of critical habitat only if their actions occur on federal lands, require a federal permit, license, or other authorization, or involve federal funding."

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) makes it unlawful to pursue, capture, kill, or possess or attempt to do the same to any migratory bird or part, nest, or egg of such bird listed in wildlife protection treaties among the United States, Great Britain, Mexico, Japan, and the countries of the former Soviet Union. As with the Federal ESA, the MBTA also authorizes the Secretary of the Interior to issue permits for incidental take.

National Environmental Policy Act

Elements of the proposed project could potentially be funded by federal grant monies. The National Environmental Policy Act (NEPA) and its supporting federal regulations establish certain requirements that must be adhered to for any project "...financed, assisted, conducted or approved by a federal agency...." In making a decision on the issuance of federal grant monies for elements of the proposed project, the federally designated lead agency pursuant to NEPA is required to "...determine whether the proposed action may significantly affect the quality of the human environment."

Section 404 of the Clean Water Act

~~Section 404 of the Clean Water Act, which is administered by the U.S. Army Corps of Engineers (Corps), regulates the discharge of dredged and fill material into "waters of the United States." The Corps has established a series of nationwide permits that authorize certain activities in "waters of the United States," provided that the proposed activity can demonstrate compliance with standard conditions. Normally, the Corps requires an individual permit for an activity that would affect an area in excess of 0.3 acre of "waters of the United States." Projects that result in impacts to less than 0.3 acre of "waters of the United States" can normally be conducted pursuant to one of the nationwide permits, if consistent with the standard permit conditions. The Corps also has discretionary authority to require an Environmental Impact Statement for projects that result in impacts to an area between 0.1 and 0.3 acre. Use of any nationwide permit is contingent on no impacts to endangered species.~~

Section 404 of the Clean Water Act, which is administered by the Corps, regulates the discharge of dredged and fill material into "waters of the United States." The Corps has established a series of Nationwide Permits that authorize certain activities in "waters of the United States," provided that the proposed activity can demonstrate compliance with standard permit conditions. The Corps has discretionary authority to require an individual permit for projects with impacts which are deemed to be greater than minimal, regardless of the acreage. The threshold for requiring an Environmental Impact Statement is that of "significance" based on the nature and severity of the impacts and not based purely on the impact quantity. Nationwide Permits can be used if impacts to endangered species are expected, any associated issues are resolved, and compliance with the Endangered Species Act is assured.

Policy 9.4 – Adequate Open Space: Provide an adequate total quantity and equitable distribution of public or publicly accessible open spaces throughout the City.

Policy 9.5 – Stewardship of the Natural Environment: Encourage and promote the stewardship of Pasadena's natural environment, including water conservation, clean air, natural open-space protection, and recycling. Encourage the use of native, water-conserving, and regionally appropriate landscaping.

City of Pasadena Draft Tree Protection Amendment

The City has drafted a proposed tree protection ordinance to preserve Pasadena's tree cover. This ordinance would amend the existing 1987 tree ordinance, which provides limited protection for trees located on public property. The proposed ordinance would increase the protection for trees on public property (street trees), and it would create new protection for trees located on private property (single and multifamily residential, commercial, institutional, and industrial).

The following trees are recommended for protection:

- Landmark trees, which are the oldest or the largest of a species in Pasadena, trees that have historical significance, or a tree with an outstanding feature for a neighborhood;

- Specimen trees, which are trees of more than 25 inches diameter at breast height (dbh) that possess a distinctive form, size, age or location, or an outstanding tree of a desirable specimen; and

- Native trees, which are trees of more than 8 inches dbh and are native to the area, including coast live oak (*Quercus agrifolia*), canyon oak (*Q. chysolepis*), California sycamore (*Plantanus racemosa*), Engelmann Oak (~~*Quercus enfelmannii*~~**) *(Quercus engelmannii)*.**

By regulating tree removal, requiring mitigation when appropriate, and preventing unwarranted removal, the proposed tree ordinance would increase the protection of individual and groups of trees for canopy cover. The preservation of trees must be considered with regard to engineering requirements in development projects. The proposed tree ordinance would involve an appeal process for decisions made at the permit level and penalties would be assessed for any noncompliance with the tree ordinance.

3.3.2 Existing Conditions

This description of biological resources is based on field surveys, a review of published and unpublished literature, and consultation with persons knowledgeable about the biology of the area. The California Natural Diversity Data Base (CNDDB)1 was consulted for information related to federally- and state-listed endangered, threatened, proposed, candidate, and sensitive wildlife, plants, and habitat resources that potentially occur within the project vicinity in addition to consultation with the USFWS.2 Data were compiled for the USGS topographic quadrangle in which the project is located (Pasadena), as well as all adjacent quadrangles (Sunland, Burbank, Condor Peak, Chilao Flat, Mt. Wilson, Hollywood, Los Angeles, and El Monte). The USGS 7.5-minute series Pasadena topographic quadrangle and the

1 California Department of Fish and Game (CDFG), 2001. *RareFind2:A Database Application for the use of the California Department of Fish and Game Natural Diversity Database.* Sacramento, CA: California Department of Fish and Game.
2 CDFG, 2001.

Non-native grassland (CNDDB Element Code 42220). This plant community is dominated in most areas by herbaceous forbs rather than non-native grass species, therefore the term "ruderal" vegetation is applied to these areas instead.1 In the proposed project, there are approximately 119.6 acres of non-native grassland/ruderal vegetation. Ruderal vegetation occurs extensively throughout the Arroyo along pathways, roadsides, and on some of the slopes ascending into the arroyo. Ruderal vegetation2 is composed of non-native, weedy species and native, disturbance-tolerant species. Plant species occurring in ruderal vegetation and/or non-native grassland include wild oats (*Avena* sp.), star thistle (*Centaurea* sp.), black mustard (*Brassica nigra*), brome species, erodium species (*Erodium* spp.) California poppy (*Eschscholzia californica*), gilias (*Gilia* spp.), tarweed (*Hemizonia fasciculata*), Italian ryegrass (*Lolium multiflorum*), lupines (*Lupinus* spp.) peppergrass (*Lepidium nitidum*), burclover (*Medicago polymorpha*), phacelias (*Phacelia* spp.), and Mediterranian grass (*Schismus barbatus*).

Developed Area. Within the proposed project, there are approximately 287.1 acres of developed areas. Developed areas include infrastructure features such as roads, buildings, dam and spillway, spreading basins, parking lots, etc.

Landscaped Vegetation. Within the proposed project, there are approximately 307.7 acres of landscaped vegetation. Landscaped vegetation is largely composed of cultivated ornamental, horticultural plants that may be introduced or native tree, shrub, forb, and grass species. Landscaped vegetation areas were not surveyed as extensively as the other native, natural terrestrial plant communities. Common plants found in these landscaped areas include, but are not limited to, species ~~of eucalyptus (*Eucalyptus spp.*), pine (*Pinus spp.*), oak, acacia (*Acacia spp.*), western sycamore, fig (*Ficus spp.*), olive (*Olea spp.*), pittosporum (*Pittosporum*), cherry (*Prunus spp.*), pepper tree (*Schinus spp.*), maple, liquidambar (*Hamamelidaceae sp.*), ash (*Fraxinus spp.*), juniper(*Juniperus spp.*), cypress (*Cupressus spp.*), pyracantha (*Pyracantha spp.*), walnut (*Juglans spp.*), hibiscus (*Hibiscus spp.*), oleander (*Nerium oleander*), privet (*Ligustrum sp.*), redwood (*Sequoia sempervirens*), elm (*Ulmus spp.*), palm (*Phoenix spp.*), coral tree (*Erythrina sp.*), periwinkle (*Vinca major*), lantana (*Lantana spp.*), ivy (*Hedera spp.*), plumbago (*Plumbago auriculata*), poplar (*Populus spp.*), tree of heaven (*Ailanthus altissima*), and agave (*Agave spp.*) (Appendix C).~~ **of eucalyptus (*Eucalyptus spp.*), pine (*Pinus spp.*), oak (*Quercus ssp.*), acacia (*Acacia spp.*), western sycamore (*Platanus racemosa*), fig (*Ficus carica.*), olive (*Olea europaea*), pittosporum (*Pittosporum spp.*), cherry (*Prunus spp.*), pepper tree (*Schinus spp.*), maple (*Acer spp.*), liquidambar (*Liquidambar styraciflua.*), ash (*Fraxinus spp.*), juniper (*Juniperus sp.*), Arizona cypress (*Cupressus arizonica.*), pyracantha (*Pyracantha angustifolia*), walnut (*Juglans spp.*), hibiscus (*Hibiscus spp.*), oleander (*Nerium oleander*), privet (*Ligustrum sp.*), redwood (*Sequoia sempervirens*), elm (*Ulmus spp.*), palm**

1 Ibid.

2 L.V. Holland and David Keil, 1995. *California Vegetation*. Dubuque, IA: Kendall/Hunt Publishing Company.

(*Phoenix canariensis),* coral tree (*Erythrina humeana*), periwinkle (*Vinca major*), lantana (*Lantana spp.*), ivy (*Hedera canariensis*), plumbago (*Plumbago auriculata*), poplar (*Populus spp.*), tree of heaven (*Ailanthus altissima*), and agave (*Agave americana*).

3.3.2.2 Listed and Sensitive Plant Species

Listed or sensitive species of plants that are potentially present within the proposed project were identified based on coordination with the resource agencies and a query of the CNDDB. Listed plant species are those federally- or state-listed as endangered, threatened, or rare. Sensitive plant species include those designated as Federal Species of Concern by the USFWS, or as California Species of Special Concern by the CDFG. There are no federal or state permits required for the removal of sensitive plants. Other plants that are not monitored by the resource agencies but are monitored by private organizations or local municipal governments are considered to be locally-important species. For the purpose of this report locally-important species include those recognized by the California Native Plant Society, a private organization dedicated to the conservation of native plants. Table 3.3.2.2-1, *Listed and Sensitive Plant Species Potentially Occurring in the Arroyo Seco,* describes the current status of listed or sensitive plant species with the potential to occur within the proposed project.

Orange-throated whiptail *(Cnemidophorus hyperythrus)*		
FSC, CSC	The orange-throated whiptail inhabits coastal sage scrub and chaparral communities on hillsides, wash bottoms, and sandy mesas in the lower elevations of southern California. Prefer relatively open shrub habitats and is most commonly seen along the edges of sandy openings within the habitat, along dirt trails that traverse the habitat, or along washes.	Range includes the southwestern edge of Los Angeles county, southwestern San Bernardino, Orange, Riverside, and San Diego Counties.[h] Nearest known occurrence was in 1988 located in the Tujunga Wash approximately 11 miles northwest of the project site.[a]
Coastal western whiptail ~~*(Cnemidophorus hyperythrus)*~~ *(Cnemidophorous tigris multiscutatus)*		
FSC	This species forages actively on the ground near the base of vegetation, taking a variety of insect prey including grasshoppers, beetles, ants, termites, insect larvae, and spiders. The coastal western whiptail occurs in arid and semiarid habitats where vegetation is relatively sparse. Western whiptails occur in a variety of plant communities, such as grassland, coastal sage scrub, chaparral, riparian, and woodlands that contain open areas within the community.	Occurs coastally in the southern Los Angeles County, Orange, Riverside, and San Diego Counties.[h] Nearest known occurrence was in 2000 located in the Santa Monica Mountains.[a]

3.3.3 Impact Analysis

Implementation of the proposed project would temporarily impact biological resources due to proposed improvements located primarily within the Hahamongna Watershed Park and the Lower Arroyo Seco Master Plan Area. However, because construction and renovation activities are temporary in nature, these impacts would not have a long-term effect.

3.3.4.1 Hahamongna Watershed Park Master Plan

3.3.4.1.1 Significant Impacts

As a result of directed surveys performed in support of the proposed project, no federally- or state-listed rare, threatened or endangered species were observed within the proposed project study area. Therefore, no significant impacts are anticipated to federally- or state-listed species as a result of implementation of this element of the proposed project.

As a result of directed surveys performed in support of the proposed project, one sensitive plant species, Plummer's mariposa lily, was found within this element of the proposed project study area. No significant impacts to Plummer's mariposa lily are anticipated as a result of implementation of this element of the proposed project.

Significant impacts could result to potentially suitable habitat of federally- and state-listed and sensitive plant species as a result of implementation of components of this element of the proposed project, requiring the consideration of mitigation.

Significant impacts would occur to southern willow scrub and mule fat scrub as a result of water conservation measures, requiring the consideration of mitigation.

Impacts could occur to waters of the U.S., including wetlands, as a result of filling, dredging, bridge construction, or other stream channel modification; requiring the consideration of mitigation.

Although Arroyo toad was not observed during the 2001 surveys, critical habitat for arroyo toad exists within the project site. Approximately two project components (stream channel widening and stream corridor alignment) may involve grading activities or vegetation disturbance within critical habitat for this species, which would result in temporary impacts to designated critical habitat for the arroyo toad requiring the consideration of mitigation.

3.3.4.1.2 Issues Found Not to Be Significant

~~Grading activities would have impacts to southern sycamore riparian woodland and streambed riparian plant communities; however, the proposed restoration projects within the Hahamongna Watershed Park would reduce the impacts to below the level of significance (Figure 3.3.4.1.2-1, *Proposed Terrestrial Natural Plant Communities at Hahamongna Watershed Park*).~~

Implementation of project elements would have impacts to Riversidean alluvial sage scrub, southern sycamore riparian woodland, and streambed riparian plant communities; however, the proposed restoration projects within the Hahamongna Watershed Park would reduce the impacts to below the level of significance (Figure 3.3.4.1.2-1, *Proposed Terrestrial Natural Plant Communities at Hahamongna Watershed Park*).

This element of the proposed project is not anticipated to result in impacts to listed or sensitive wildlife species, the movement of native migratory fish and wildlife species that are using established native

3.3.5.1 Measure Biological-1, Potentially Suitable Habitat

The following mitigation program has been developed and shall be implemented to ensure no net loss of federally- and state-listed and sensitive **plant and wildlife** species and sensitive plant communities due to impacts to potentially suitable habitat.

- **Prior to project component implementation, directed surveys would be conducted for listed and sensitive plant and wildlife species potentially occurring on site, to confirm that they are not present within potentially suitable habitat. Surveys for sensitive plant communities would also be conducted at this time.**

- If listed or sensitive plant resources (ie. listed or sensitive plants or sensitive plant communities) are observed to occur in areas that would be impacted by implementation of project elements, listed or sensitive plant resources would be avoided. Fencing will be placed around the listed or sensitive plant resources including a buffer area to ensure listed or sensitive plant resources are not impacted. The buffer area will be determined in consultation with the USFWS and CDFG. Monitoring will occur before, during, and after component implementation to ensure avoidance of the listed or sensitive plant resources.

The Rose Bowl has been subject to structural improvements and reconstructions throughout the operation of the facility.

- Construction of press box facilities in 1923, 1930, and 1961, with a comprehensive Face-lift and expansion completed in 1992.
- Construction of scoreboard structures at the north and south ends in 1930;
- Installation of aluminum bench seats in 1969;
- Construction of team locker rooms and adjacent multi-purpose media room under The south end of the stadium in 1973;
- Construction of new restroom buildings and concession stands during 1981-1982;
- Structure improvements at the south end to mitigate seismic hazards (beginning in 1982);
- Emergency seismic mitigation following the 1994 Northridge earthquake; and
- Rose Bowl Improvement Project in 1996.

Arroyo Seco Flood Control Channel

Built as a WPA project in the late 1930s and early1940s, the flood control channel brought about the greatest change in the Arroyo Seco. The channel altered the watershed and wildlife ecology and made a striking visual impact on the area, generally detracting from its beauty and natural character.

La Casita

La Casita was constructed in 1932 as a joint project sponsored by the Pasadena Garden Club and the City Park Department to provide jobs for the unemployed. The small clubhouse, designed by Myron Hunt, was intended to become an art and nature center. The gardens at La Casita were built as water conserving demonstration gardens. They were designed by Isabelle Greene (granddaughter of Henry Green) and Yosh Befu, with much input from the City of Pasadena Department of Water and Power staff. The many rock walls gracing the Arroyo Seco today ~~was subsidized by the Scottville family to create jobs during the Depression.~~ were built of Arroyo stone significantly earlier than World War II, some by the Scoville family (c. 1893), some as part of Busch Gardens (c.1905). Developments including a railway and extension of the freeway were proposed for the Lower Arroyo Seco but were stopped by movements to preserve what was left of the wild canyon.

Lower Arrow Seco Cultural Landmark

In recent years, the City of Pasadena demonstrated its commitment to preserving the Lower Arroyo

Seco as a natural park. Because of the significant role it played in the history of Pasadena, the Lower Arroyo Seco was declared a cultural landmark on 1977. The Arroyo Seco Ordinance, adopted in 1982, placed restrictions on uses and development in the Arroyo Seco and established it as a natural preservation area.

Today, the City of Pasadena encourages citizen involvement in the Arroyo Seco. Volunteer projects are carried out with the assistance of City Staff. The Friends of the Arroyo Seco have invested much time and energy planting native vegetation and reintroducing barn owls to the Lower Arroyo. The Pasadena Casting Club and Pasadena Roving Archers contribute many hours to maintain their areas. A volunteer police unit, called the Equestrian Patrol, was recently formed to patrol the Arroyo Seco to discourage vandalism and enforce regulations. Carol 2, an equestrian organization that operates from the stables in South Pasadena, focuses its efforts on trail restoration. The Pasadena Garden Club has recently completed major restoration of La Casita del Arroyo and the surrounding grounds. The gardens around

Regional Cultural History

The three geographic elements of the proposed project lie within and are owned by the City of Pasadena. Major landowners located adjacent to the Hahamongna Watershed Park include the Jet Propulsion Laboratory and the Metropolitan Water District. The City of Pasadena has maintained the physical structure of the Arroyo Seco with modifications for recreation, flood control, and water conservation. The County of Los Angeles Department of Public Works owns and operates Devil•s Gate Dam, and maintains a flood control easement to the 1,075-foot elevation above mean sea level (msl), which carries water from Devil•s Gate Dam at the base of Hahamongna Watershed Park through the Central and Lower Arroyo Seco to its confluence with the Los Angeles River. The County of Los Angeles Department of Public Works Flood Maintenance Division is responsible for maintaining everything within the 1,075-foot easement related to flood control and debris removal, and the City of Pasadena is responsible for maintaining recreation-related features within and outside that easement. The Central and Lower Arroyo Seco are channelized for flood control, but the City has purposefully maintained the natural order of the surrounding floodplain by means of the rubble retaining walls ~~built by the Los Angeles Conservation Corps during World War II~~ built of Arroyo stone significantly earlier than World War II, some by the Scoville family (c. 1893), some as part of Busch Gardens (c.1905).. The Arroyo Seco links the steep-rising front ranges of the San Gabriel Mountains to the diverse and historic landscape of Pasadena. The dynamic floodplain of the Arroyo Seco supports a classic assemblage of southern California plant and animal communities. The Hahamongna Watershed consists of the valley and waters that once supported the Gabrieliño people who inhabited the area from around 500 B.C. to the 1800s.

Extant Historic Resources

Upper Arroyo Seco Hahamongna Watershed Park

Structures that are within the vicinity of the upper Arroyo Seco and are listed on the National Register include the Space Flight Operations facility and the 25-foot Space Simulator, which are located adjacent to the Upper Arroyo Seco at the Jet Propulsion Laboratory. The Devil•s Gate Dam and Reservoir, a major component of the project, is locally determined to be a historic resource, and has also been determined eligible for the National and California Registers of Historic Resources.

Central Arroyo Seco

The Colorado Street Bridge helps define the boundary between the Central Arroyo Seco and the Lower Arroyo Seco. Various other structures and features, such as the California Conservation Corps retention walls located through the proposed project area and the Jackie Robinson baseball field located in the Central Arroyo Seco, are potential historic resources.

Lower Arroyo Seco

The Lower Arroyo Seco is designated as a local landmark, any changes to which would require a Cultural Heritage Commission review. A Design Commission Review is likewise required for changes to public buildings in the proposed project area.

Extant Archeological Resources

Although technical research yielded only a single known archeological site in the Arroyo Seco, native soils within the Arroyo Seco are considered to have a high level of sensitivity to support archeological resources.

The California Geological Survey (CGS) has delineated special study zones along known active and potentially active faults in California pursuant to the Alquist-Priolo Earthquake Fault (formerly Special Studies) Zones (APEFZ) Act of 1972. The State designates the authority to local government to regulate development within APEFZ. Construction of habitable structures is not permitted over potential rupture zones.

The CGS has also identified Seismic Hazard Zones that are delineated in accordance with the Seismic Hazard Mapping Program (SHMP) of the Seismic Hazards Act of 1990. The Act is "to provide for a statewide seismic hazard mapping and technical advisory program to assist cities and counties in fulfilling their responsibilities for protecting the public health and safety from the effects of strong ground shaking, liquefaction, landslides, or other ground failure and other seismic hazards caused by earthquakes."

The State of California Geological Survey (formerly the California Division of Mines and Geology) identifies several earth resource issues that should be taken into consideration in evaluating whether proposed projects are likely to be subject to geologic hazards, particularly related to earthquake damage. These considerations include both the potential for existing conditions to pose a risk to the project and the potential for the project to result in an impact on the existing conditions for geology or soils. The State of California (Uniform) Building Code sets standards for investigation and mitigation of site conditions related to fault movement, liquefaction, landslides, differential compactions/seismic settlement, ground rupture, ground shaking, tsunami, seiche, and seismically induced flooding. Mitigation of geological (including earthquake) and soil (geotechnical) issues must be undertaken in compliance with the California Building Code.

The State CGS establishes regulations related to geologic hazards (e.g., faulting, liquefaction, subsidence, ground shaking) as they affect persons and structures. Projects located within special studies (active or potentially active faults) or designated hazards (liquefaction or seismically induced landslide) zones as delineated by the APEFZ and SHMP may be subject to regulatory control. The State designates this control to local governments to regulate development within special studies and hazards zones.

The CGS also issues guidelines for the evaluation of geologic and seismic factors that may impact a project, or that a project may affect. The applicable guidelines are as follows:

- CDMG Note 42, Guidelines to Geologic/Seismic Reports;6

- CDMG Note 46, Guidelines for Geologic/Seismic Considerations in Environmental Impact Reports;7

- CDMG Note 49, Guidelines for Evaluating the Hazard of Surface Fault Rupture.8

- **CDMG Special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards in California.9**

6 California Department of Conservation, Division of Mines and Geology, 1994. *Fault-Rupture Hazard Zones in California: Alquist-Priolo Earthquake Fault Zones Act with Index to Earthquake Fault Zones. Special Publication No. 42.* Contact: 801 K Street, MS 14-33, Sacramento, CA 95814-3531.

7 California Department of Conservation, Division of Mines and Geology, 1986. *Guidelines for Geologic/Seismic Considerations in Environmental Impact Reports. Special Publication No. 46.* Contact: 801 K Street, MS 14-33, Sacramento, CA 95814-3531.

8 California Department of Conservation, Division of Mines and Geology, 1998. *Guidelines for Evaluating the Hazard of Surface Fault Rupture. Special Publication No. 49.* Contact: 801 K Street, MS 14-33, Sacramento, CA 95814-3531. Available at http://www.consrv.ca.gov/dmg/pubs/notes/49/index.htm (Last viewed April 8, 2002.)

9 California Department of Conservation, Division of Mines and Geology, 1997. *Guidelines for Evaluating and Mitigating Seismic Hazards in California.* Special Publication No. 117. Contact: 801 K Street, MS 14-33, Sacramento, CA 95814-3531.

TABLE 3.5-4
SUMMARY OF NECESSARY COMPLIANCE WITH CODES AND STANDARDS FOR PROJECT COMPONENTS HAVING POTENTIALLY SIGNIFICANT GEOLOGY AND SOILS-RELATED ISSUES

SUB-AREA Component[2]	**Necessary Technical Compliance with Existing Building Codes and Industry Design Standards[1]**							
	Seismic Design	Slope Stability	Foundation Design	Impermeable Liner Design	Tunnel Stability	Erosion/ Sediment Control	Excavation/ Trench Stability	Compaction Testing
HAHAMONGNA WATERSHED PARK (UPPER ARROYO SECO)								
1.1 New Parking Area, Existing Tunnel	X				X			
1.5 Dam Keeper's Quarters	X							
4.1 Water Conservation Pool	X	X	X	~~X~~		X		X
4.4 West Side Spreading Basins	X	X	X			X		X
4.5 East Side Spreading Basins	X	X	X			X		X
4.6 Altadena Drain			X				X	X
4.7 Altacrest Drain			X				X	X
8.0 West Lake	X	X	X	X		X		X
9.3 Berkshire Drain			X				X	X
11.1 Parking Structure	X		X			X	X	X
13.0 East Lake	X	X	X	X		X		X
14.0 Sunset Overlook		X				X		
16.2 Flint Wash Bridge	X	X	X			X	X	X

Remediation measures to minimize risk shall be specified in a site-specific report of geotechnical investigation approved by a certified engineering geologist. Completion of this measure shall be monitored and enforced by the City of Pasadena Department of Public Works.

Measure Geology – 4

The City of Pasadena shall reduce the potential risk of loss or injury from geological hazards in conjunction with multi-level parking structure, Flint Wash Bridge, and the north bridge through the conformance to all existing building codes and regulations. Construction and operation impacts to geology and soils shall be minimized through the investigation and application of standard geotechnical remediation measures into the plans and specifications for the proposed parking structure, Flint Wash Bridge and the north bridge. **Work on the park access road to Johnson Field and the reconstruction of same would require standard construction techniques. The grading and slope preparation methods and techniques that can be used to prevent severe erosion and to stabilize the west-facing slope along the park access road are highly dependent on the specific conditions present. The geologic material is older alluvium/soil. Runoff from above could be prevented from moving down the slope by a berm/swale or a short wall along the west side of the road, although several erosion controls are available for approval by the City of Pasadena Department of Public Works in conformance with the California Uniform Building Code. The appropriate measure will be determined by a site-specific geotechnical study report.**

Geologic and geotechnical investigations conducted for the proposed parking structure, Flint Wash Bridge and the north bridge would include but not be limited to:

- Analysis of slopes in the project area and proposed project slope stability projections
- Soils and subsurface conditions
- Erosion potential and erosion and sedimentation controls needed for the proposed project
- Results of compaction testing and recommendations for proposed project compaction requirements

Remediation measures for the proposed parking area would include but not be limited to the following, as applicable:

- Optimum slope design for stability and safety
- Soil compaction or recompaction requirements
- Soil stability to be used in construction excavation design
- Erosion and sedimentation controls and locations

Remediation measures to minimize risk shall be specified in a site-specific report of geotechnical investigation approved by a certified engineering geologist. Completion of this measure shall be monitored and enforced by the City of Pasadena Department of Public Works.

Measure Geology – 5

The City of Pasadena shall reduce the potential risk of loss or injury for the non-structural elements, such as the Sunset Overlook and embankments in stream corridors in Hahamongna Watershed Park though conformance with all existing building codes and regulations. Construction and operation impacts to geology and soils shall be minimized through the investigation and application of standard geotechnical remediation measures into the plans and specifications for the proposed non-structural elements that require alteration of existing slopes and embankments.

Geologic and geotechnical investigations conducted for the proposed non-structural elements that require alteration of existing slopes and embankments would include but not be limited to:

- Analysis of slopes in the project area and proposed project slope stability projections
- Soils and subsurface conditions
- Erosion potential and erosion and sedimentation controls needed for the proposed project

in the Casting Pond and the Camel's Hump.

Geologic and geotechnical investigations conducted for the proposed bank stabilization measures in the Casting Pond and the Camel's Hump would include but not be limited to:

- Analysis of slopes in the project area and proposed project slope stability projections
- Soils and subsurface conditions
- Need for and type on liners to be designed and used for the Casting Pond
- Erosion potential and erosion and sedimentation controls needed for the proposed project
- Results of compaction testing and recommendations for proposed project compaction requirements

Remediation measures for the proposed parking area would include but not be limited to the following, as applicable:

- Optimum slope design for stability and safety
- Soil compaction or recompaction requirements
- Liner types and locations for the Casting Pond
- Soil stability to be used in construction excavation design
- Erosion and sedimentation controls and locations

Remediation measures to minimize risk shall be specified in a site-specific report of geotechnical investigation approved by a certified engineering geologist. Completion of this measure shall be monitored and enforced by the City of Pasadena Department of Public Works. **Every reasonable effort shall be made, within the context of the design and remediation measures development process for stabilization of the Camel's Hump area, to create a "natural" appearance that transitions from the existing or modified Arroyo Seco channel to any slope stability remediation needed for the Camel's Hump.**

Measure Geology – 8

The City of Pasadena shall reduce the potential risk of loss or injury from the proposed ADA Bridge in the Lower Arroyo Seco though conformance with all existing building codes and regulations. Construction and operation impacts to geology and soils shall be minimized through the investigation and application of standard geotechnical remediation measures into the plans and specifications for the proposed ADA Bridge in the Lower Arroyo Seco.

Geologic and geotechnical investigations conducted for the proposed ADA Bridge in the Lower Arroyo Seco would include but not be limited to:

- Soils and subsurface conditions

- Erosion potential and erosion and sedimentation controls needed for the proposed project
- Data and design recommendation for excavation and trench stability
- Results of compaction testing and recommendations for proposed project compaction requirements

Remediation measures for the proposed parking area would include but not be limited to the following, as applicable:

- Optimum slope design for stability and safety
- Soil compaction or recompaction requirements
- Soil stability to be used in construction excavation design
- Erosion and sedimentation controls and locations

Remediation measures to minimize risk shall be specified in a site-specific report of geotechnical investigation approved by a certified engineering geologist. Completion of this measure shall be monitored and enforced by the City of Pasadena Department of Public Works.

Seco and Devil's Gate Dam. The floodplain features and flood water elevations, however, will not be impacted significantly due to the proposed development. The types of construction proposed within the floodplain typically do not require significant fill or dredging that may lead to changes in topographic or geomorphologic characteristics of the Arroyo Seco and Devil's Gate reservoir. No major structure is proposed that may affect the flow resistance or flow conveyance of the channel. The floodplain is very wide and flow velocities are generally slow in the reservoir area; minor encroachment on the floodplain in this area would not cause significant changes in the flood water stages or erosion/sedimentation trends. Therefore, no significant short or long term impacts would be expected as long as the designers and contractors follow the design guidelines that limit significant grading and drainage changes.

Water Quality Impact Analysis

Since the proposed plan involves development within the floodplain or adjacent to floodplain boundaries, significant short term construction impacts to water quality are expected and would require mitigation during the construction period. A description of mitigation measures to alleviate significant impacts is provided below.

Long term, accumulated water quality impacts may be related to potential increase in vehicles, horses, and park and trail users. Trash, oil/grease, fertilizer, and animal waste are the common pollutant sources related to the proposed plan. These impacts would be reduced to below a level of significance with mitigation.

A major component of the Arroyo Seco Master Plan is habitat restoration, conservation, and preservation throughout the Arroyo Seco. Habitat restoration, conservation, and preservation efforts may result in the presence of increased numbers of wildlife, including waterfowl. Although waterfowl may be linked to high levels of microbial contamination in waterways, any increases in microbial contamination are expected to be offset by filtration through wetlands. If during final design of wetland features it is determined that adequate filtration will not occur, other means of moderating microbial contamination in waterways will be implemented. Maintenance of water quality throughout the Arroyo Seco will be a key element in the wetland design during project implementation.

Groundwater Impact Analysis

The plan intends to improve the spreading grounds and to provide groundwater recharge through diversion of surface water in Arroyo Seco. This would result in no adverse or positive impacts to the Raymond Basin.

The plan does not involve activities that could cause soil or groundwater contamination; therefore, it is expected that there would be no significant impacts to groundwater quality.

3.7.4.2 Central Arroyo Seco Master Plan

The Central Arroyo Seco contains the Rose Bowl, the Rose Bowl Aquatic Center, Jackie Robinson Baseball Field, tennis courts, Brookside Golf Course and Clubhouse, multi-use trails, equestrian loop, multi-purpose fields, Rosemont Pavilion, an amphitheater, Brookside Park, and associated asphalt-paved parking.

Floodplain Encroachment Impact

No significant impacts would be expected due to the proposed plan. The construction elements would be mostly outside of the 100-year floodplain or the plan element would not cause any change in floodplain features such as flood elevations, floodplain boundaries, velocities, and erosion/sedimentation patterns.

TABLE 3.9.4.1.2-4
CALCULATED A-WEIGHTED NOISE LEVELS IN dB FROM JOHNSON FIELD SOCCER FIELDS

Distance (Feet)	Noise Level (dBA)
20	61
100	47
200	41

It was determined that noise levels from soccer fields would not be audible at distances in excess of 100 feet. The proposed soccer fields would be separated from the nearest residences by at least 400 feet. Therefore, noise levels from operation of youth soccer fields would not exceed thresholds of significance.

The acoustical engineer based anticipated noise levels from softball games on empirical data from constructed adult softball fields (Appendix E). Noise levels were calculated at various distances based on these measured source levels and determined to range from 53 dBA at 20 feet to 33 dBA at 200 feet (Table 3.9.4.1.2-5, *Calculated A-Weighted Noise Levels in dB from Johnson Field Softball Fields)*.

TABLE 3.9.4.1.2-5
CALCULATED A-WEIGHTED NOISE LEVELS IN dB FROM JOHNSON FIELD SOFTBALL FIELDS

Distance (Feet)	Noise Level (dBA)
20	53
100	39
200	33

Noise levels from softball fields would not be audible at distances in excess of 100 feet. The proposed softball fields would be separated from the nearest residences by at least 250 feet. Therefore, the renovation of Johnson Field to include soccer fields and softball fields would not be expected to exceed thresholds of significance.

<u>New Park Entry into Hahamongna Watershed Park</u>

Measurements of ambient noise in these areas were not considered necessary to document typical ambient noise in the overall Project area. However, ambient noise measurements were completed recently at this location. Ambient CNEL values at the Hahamongna Park Entrance were found to be 52 dB. Noise levels associated with this element of the project are not considered to be significant.

Berkshire Place is an east west roadway located west of the Upper Arroyo Seco. Berkshire Place provides one through travel lane in each direction west of the Foothill Freeway ramps, and two lanes are provided in each direction east of the Foothill Freeway ramps until the roadway terminates at Oak Grove Drive. No sidewalks are provided west of the Foothill Freeway eastbound ramps.

Windsor Avenue is a north south roadway located east of the Upper Arroyo Seco. Windsor Avenue provides one through travel lane in each direction. Sidewalks are generally not provided along Windsor Avenue, except for a few small segments. It should be noted that portions of Windsor Avenue north of the Foothill Freeway are located within the ~~City of~~ **community of Altadena, an unincorporated area of the County of Los Angeles.**

Lincoln Avenue is a north south roadway in the project vicinity which runs adjacent to the Central and Upper Arroyo Seco project areas along the easterly side. Lincoln Avenue generally provides two through travel lanes in each direction.

Colorado Boulevard is an east-west roadway in the vicinity of project study area. Colorado Boulevard generally provides two through travel lanes in each direction.

California Boulevard provides access to and from the Lower and Central Arroyo Seco areas from Arroyo Boulevard. East of Saint John Avenue, California Boulevard provides two lanes in each direction. West of Saint John Avenue, California Boulevard provides one lane in each direction.

Wayfinding Program

Existing permanent signs are provided to guide motorists into and away from the Rose Bowl at several key locations in the vicinity of the Rose Bowl as part of the wayfinding program. These signs typically indicate "Rose Bowl" with a directional arrow and are located along streets such as San Rafael Avenue, Seco Street, Lincoln Avenue, Berkshire Place, Orange Grove Boulevard, Rosemont Avenue, etc. For special Rose Bowl events, temporary changeable message signs are provided by the State of California Department of Transportation (Caltrans) along the Ventura Freeway and the Foothill Freeway.

Local Public Transit Services

The Arroyo Seco project area is served directly by public bus lines operated by the Los Angeles County Metropolitan Transportation Authority (MTA) and indirectly by the Pasadena Area Rapid Transit Service (ARTS). The City of Pasadena General Plan emphasizes the use of transit in an effort to decrease reliance on the automobile. The following paragraphs provide brief descriptions of bus service in the project vicinity. The public transit routes in the project vicinity are illustrated in Figure

3.12.2-2a, *Existing Public Transit Routes*. The description of the local public transit services, routes, and hours of operation are documented in *Appendix F*.

MTA Line 177 is the only transit route which passes directly through the Upper and Central Arroyo Seco plan area. Approximately seven bus lines have transfer opportunities with MTA Line177. The MTA Line 177 provides service to/from downtown Glendale via Glendale College, through Montrose, La Canada-Flintridge, Pasadena, and to the City of Hope in Duarte. Line 177 provides service along Oak Grove Drive, Linda Vista Avenue, Seco Street, Lincoln Avenue, and Orange Grove Boulevard (north/south on Orange Grove Boulevard) in the project vicinity.

According the *Pasadena Mobility Objectives for the Millennium* report, prepared for the City of Pasadena by Transportation Management & Design, this line also provides service to the Jet

A Class III bicycle facility is provided along some portions of Arroyo Boulevard and Grand Avenue in the Lower Arroyo Seco plan area, as well as in some portions of the Upper Arroyo Seco plan area.

Traffic Counts

Traffic count data and field observations were conducted to provide an evaluation of existing conditions during weekday morning and afternoon commuter peak hours, as well as during the arrival and departure time periods associated with two Rose Bowl special events. The Rose Bowl event observations included one large scale event (UCLA versus University of Michigan football game on September 16, 2000), and one small scale Rose Bowl event (Galaxy Soccer game on the evening of Saturday, March 18, 2000).

The following 26 study intersections located in the immediate project vicinity, and at regional access points were selected in consultation with City of Pasadena Transportation Division staff for analysis of potential impacts related to the proposed project:

- <u>Central Arroyo Seco Area</u>

    1. San Rafael Avenue and SR-134 Freeway Westbound (WB) Ramps.
    2. San Rafael Avenue and SR-134 Freeway Eastbound (EB) Ramps.
    3. West Drive and Salvia Canyon Road.
    4. West Drive and Seco Street.
    5. Rosemont Avenue and Washington Boulevard.
    6. Rosemont Avenue and Seco Street.
    7. Orange Grove Boulevard and Holly Street/I-210 Freeway WB Off-Ramp and EB On-Ramp.
    8. Orange Grove Boulevard and SR-134 Freeway EB Off-Ramp, WB On-Ramp/ Colorado Boulevard.
    9. North Arroyo Boulevard and I-210 Freeway WB Ramps (~~City of~~ Altadena).
    10. North Arroyo Boulevard and I-210 Freeway EB Ramps.
    11. I-210 Freeway EB Ramps and Howard Street.
    12. Lincoln Avenue and I-210 Freeway WB Ramps.
    13. I-210 Freeway EB Ramps and Mountain Street.
    14. I-210 Freeway WB Ramps and Mountain Street.

- <u>Upper Arroyo Seco Area</u>

    15. I-210 Freeway EB On Ramp and Foothill Boulevard (City of La Canada).
    16. I-210 Freeway WB Off-Ramp/Crown Avenue and Foothill Boulevard (City of La

Canada).

17. Oak Grove Drive and Foothill Boulevard (City of Pasadena/La Canada).
18. I-210 Freeway EB Ramps and Berkshire Place (City of La Canada).
19. I-210 Freeway WB Ramps and Berkshire Place (City of La Canada).
20. Linda Vista Avenue and Highland Drive (City of La Canada).
21. Linda Vista Avenue and Oak Grove Drive (City of La Canada).
22. Windsor Avenue and Ventura Street (City of Pasadena/Altadena).
23. North Arroyo Boulevard/Windsor Avenue and Woodbury Road (~~City of~~ Altadena).

3.13 UTILITIES AND SERVICE SYSTEMS

As a result of the Initial Study,1 the City of Pasadena determined that the Arroyo Seco Master Plan (proposed project) had the potential to result in impacts to utilities and service systems. Therefore, this issue was carried forward for detailed analysis in this draft *Master Environmental Impact Report* (*Master EIR*). This analysis was undertaken to identify opportunities to avoid, reduce, or otherwise mitigate potential significant impacts to the proposed project in relation to utilities and service systems. This analysis considers impacts that could occur from all phases of the proposed project in relation to utilities and service systems, including construction activities and operation.

The analysis of utilities and service systems includes a description of the regulatory framework that guides the decision-making process, existing conditions of the proposed project area, thresholds for determining if the proposed project will result in significant impacts, anticipated impacts, mitigation measures, and level of significance after mitigation.

3.13.1 Regulatory Framework

This regulatory framework identifies the state and local statutes guidelines that should be considered by the City of Pasadena when rendering decisions on projects involving such activities.

FEDERAL

National Environmental Policy Act

Elements of the proposed project could potentially be funded by federal grant monies. The National Environmental Policy Act (NEPA) and its supporting federal regulations establish certain requirements that must be adhered to for any project "...financed, assisted, conducted or approved by a federal agency...". In making a decision on the issuance of federal grant monies for elements of the proposed project, the federally designated lead agency pursuant to NEPA is required to "...determine whether the proposed action may significantly affect the quality of the human environment." A NEPA document may be needed for the proposed project or the EIR may be accepted as the NEPA document at the discretion of the NEPA lead agency.

1 City of Pasadena, 2000. *Initial Study Arroyo Seco Mater Plan Project.* Prepared by: Sapphos Environmental, Inc., 133 Martin Alley, Pasadena, CA 91105. Contact: Department of Planning and Permitting, 175 North Garfield, Pasadena, CA 91109.

STATE

California Public Utilities Commission Regulations

General Order 131-D

General Order 131-D (G.O. 131-D) governs the planning and construction of electric generation, transmission/power/distribution line facilities, and substation facilities between 50 kilovolt (kV) and 200 kV. The transmission line in the Hahamonga Watershed Park is a 66-kV line and any relocation or modifications to it would fall under the G.O. 131-D.

The objectives of G.O. 131-D, which was adopted by the CPUC in June 1994, are to: (1) ensure adequate environmental review in order to fulfill the requirements of CEQA; (2) provide an opportunity for affected parties to be heard by the CPUC through appropriate public notice; (3) enable utilities to meet their obligation to serve their customers in a timely and efficient manner; and (4) streamline the complaint treatment of under 200 kV properties.

Rule 20

Rule 20 is the CPUC-approved tariff governing the replacement of overhead transmission facilities with underground transmission facilities. Rule 20A pertains to cities within Southern California Edison's service territory for which cities receive undergrounding allocation; however, either Rule 20B and Rule 20C would likely be applicable to any proposed undergrounding requested by the City of Pasadena.

REVISED SECTION 4.0
ALTERNATIVES TO THE PROPOSED PROJECT

This section of the draft *Master EIR* describes alternatives to the proposed *Arroyo Seco Master Plan* (proposed project). Alternatives have been analyzed consistent with the recommendations of Section 15126.6 of the State of California Environmental Quality Act (State CEQA) Guidelines, which require evaluation of a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. The discussion of alternatives is intended to focus on (1) alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects that a project may have on the environment; (2) alternatives capable of accomplishing most of the basic purposes of the project and could avoid or substantially lessen one or more of the significant effects; (3) the provision of sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project (a matrix displaying the major characteristics and significant effects of each alternative may be used to summarize the comparison); (4) the ■No Project• analysis of what would be reasonably expected to occur in the foreseeable future if the project were not approved, from which an environmentally superior alternative must be selected in addition to the No Project Alternative. The analysis of alternatives should be limited to those that the lead agency determines could feasibly attain most of the basic objectives of the project. The State CEQA Guidelines describe feasibility as being dependent on site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, and jurisdictional boundaries.

Alternatives addressed in this draft *Master EIR* were derived from work undertaken by the City of Pasadena and from comments that were received in response to the Notice of Availability and the comments provided by interested parties that attended the scoping meeting. The resulting range of alternatives considered includes the following:

- **No Project Alternative**
- **Oak Grove Multi-Use Play Field Alternative**
- **East/West Parking Solution Alternative**
- **East Side Parking Solution Alternative**
- **No Impact on Designated Critical Habitat Alternative**
- **<u>Staff Recommended Alternative</u>**

The ability of each of the alternatives to achieve most of the basic objectives of the project has been evaluated in relation to the statement of objectives described in Section 2.2 of this *Master EIR*. A summary of the ability of the proposed project and alternatives under consideration to meet the objectives of the project is presented in Table 4.0-1, *Summary of Proposed Project and Alternatives*•

Ability to Attain Project Objectives. Although it is not capable of meeting most of the basic objectives of the proposed project, the No Project Alternative has been carried forward for detailed analysis, as required by the CEQA.

TABLE 4.0-1
SUMMARY OF PROPOSED PROJECT AND ALTERNATIVES' ABILITY TO ATTAIN PROJECT OBJECTIVES

Alternatives / Objectives	Proposed Project	No Project	Oak Grove Multi-Use Play Field	East/West Parking Solutions	Eastside Parking Solutions	No Impact on Designated Critical Habitat	**Staff Recommended Alternative**
1. Implement Proposition A funding for Hahamongna Watershed Park							
	Yes	No	Yes	Yes	Yes	Yes	**Yes**
2. Implement Proposition A funding for projects in the Lower Arroyo Seco							
	Yes	No	Yes	Yes	Yes	Yes	**Yes**
3. Achieve restoration/conservation of the natural environment							
	Yes	No	Yes	Yes	Yes	Conservation - Yes Restoration - No	**Yes**
4. Conserve a living cultural history of the region compatible with designated recreation uses							
	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
5. Development and rehabilitation of Hahamongna Watershed Park consistent with the County of Los Angeles Department of Public Works flood control easement							
	Yes	No	Yes	Yes	Yes	No	**Yes**
6. Operate and maintain flood control facilities to provide protection to downstream structures, neighborhoods, and communities from a capital storm event							
	Yes	Yes	Yes	Yes	Yes	No	**Yes**

TABLE 4.0-1
SUMMARY OF PROPOSED PROJECT AND ALTERNATIVES' ABILITY TO ATTAIN PROJECT OBJECTIVES

Alternatives / Objectives	Proposed Project	No Project	Oak Grove Multi-Use Play Field	East/West Parking Solutions	Eastside Parking Solutions	No Impact on Designated Critical Habitat	**Staff Recommended Alternative**
7. Optimize water conservation in the Arroyo Seco to serve City of Pasadena enterprises and residents							
	Yes	No	Yes	Yes	Yes	No	**Yes**
8. Continue to operate the Rose Bowl as a premiere sporting event venue							
	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
9. Develop a traffic management plan for the Central Arroyo Seco that incorporates a Rose Bowl shuttle route, including safety measures for recreational users							
	Yes	No	Yes	Yes	Yes	Yes	**Yes**
10. Provide recreation facilities and programs to meet existing and 2020 planning horizon projected levels of demand							
	Yes	No	No	Yes	Yes	No	**Yes**
11. Update the Arroyo Seco Public Lands Ordinance							
	Yes	No	Yes	Yes	Yes	No	**Yes**
12. Provide a multi-modal trail connection to the Rim of the Valley Trail and maintain connection to the Pacific Crest Trail and the County of Los Angeles Riding and Hiking Trails							
	Yes	No	Yes	Yes	Yes	No	**Yes**
13. Enhance the existing internal system of trails to serve passive and active recreation uses within the Arroyo Seco							

TABLE 4.0-1
SUMMARY OF PROPOSED PROJECT AND ALTERNATIVES' ABILITY TO ATTAIN PROJECT OBJECTIVES

Alternatives / Objectives	Proposed Project	No Project	Oak Grove Multi-Use Play Field	East/West Parking Solutions	Eastside Parking Solutions	No Impact on Designated Critical Habitat	**Staff Recommended Alternative**
	Yes	No	Yes	Yes	Yes	Partial	**Yes**
14. Implement recreation improvements consistent with the County of Los Angeles Sheriff's Department Crime Prevention through Environmental Design Guidelines							
	Yes	No	Yes	Yes	Yes	Yes	**Yes**
15. Provide for new revenue-generating park facilities							
	Yes	No	Yes	Yes	Yes	Yes	**Yes**
16. Develop a maintenance plan for existing park facilities							
	Yes	No	Yes	Yes	Yes	Yes	**Yes**
17. Provide Americans with Disabilities Act (ADA) access for most of the facilities							
	Yes	No	Yes	Yes	Yes	Yes	**Yes**

4.1 ALTERNATIVE 1: NO PROJECT

Under the No Project Alternative, the existing conditions described in this document would remain unchanged. Although it is not capable of meeting many of the basic objectives of the proposed project, the No Project Alternative has been carried forward for detailed analysis, as required by CEQA. The No Project Alternative is depicted in Figure 4.1-1a, *Alternative 1: Hahamongna Watershed Park Master Plan- No Project*, Figure 4.1-1b, *Alternative 1: Central Arroyo Seco Master Plan - No Project*, and Figure 4.1-1c, *Alternative 1: Lower Arroyo Seco Master Plan - No Project*.

4.1.1 Objectives

The No Project Alternative is not capable of meeting many of the basic objectives of the project. There would be no pedestrian and trail improvements within the three elements of the proposed project. There would be no new parking structures or parking opportunities. Landscaping improvements would be eliminated. There would be no new passive or active recreational opportunities, which include the new lakes, trail improvements, or new multi-use fields, as well as overnight camping and picnic facilities. Opportunities for water conservation, flood control rehabilitation, and habitat restoration would be eliminated given the No Project Alternative. Furthermore, the No Project Alternative would eliminate the opportunities to provide American with Disabilities Act (ADA) access for most of the existing facilities.

4.1.2 Construction Scenario

Under the No Project Alternative, no clearing, grubbing and/or grading would take place.

4.1.3 Comparative Impacts

Aesthetics

The No Project Alternative avoids potential impacts to aesthetics that could result from the implementation of the master plan. While there are no designated scenic vistas in the Arroyo Seco, the open space corridor provided by the Arroyo Seco, which runs from the upper reaches in the Angeles National Forest south to the city's southern boundary, is considered to be one of the most scenic areas in the region. In addition, the *City of Pasadena Comprehensive General Plan*[1] contains a Scenic Highway diagram that depicts Linda Vista Avenue and the Foothill Freeway as Los Angeles County Recommended Scenic Highways (unofficial). Unlike the proposed project, this alternative would not include the construction of a parking structure in the Upper Arroyo. Section 3.1, Aesthetics, of this *Master EIR* provides mitigation for short-term construction impacts and long-term

[1] City of Pasadena, Planning Division, 1994. *City of Pasadena Comprehensive General Plan*. Contact: Community Planning Section, 175 North Garfield Avenue, Pasadena, CA 91109-7215.

impacts that would occur as a result of the proposed project. Unlike the proposed project, this alternative would entail no construction or paving, and implementation of mitigation measures would not be required. The No Project alternative would not result in short-term or long-term impacts to aesthetics.

Air Quality

The No Project Alternative avoids potential impacts to air quality that could result from the implementation of the master plan. This alternative would entail no construction or paving, and implementation of mitigation measures from the proposed project would not be required.

Biological Resources

The No Project Alternative avoids potential impacts to biological resources that could result from the implementation of the proposed project. This alternative would entail no construction or paving, and implementation of mitigation measures from the proposed project would not be required. Additionally, the area would not have the benefit of the habitat conservation measures in the proposed project.

Cultural Resources

The No Project Alternative avoids potential impacts to cultural resources that could result from the implementation of the proposed project. No cultural resources within the Arroyo Seco would be impacted. This alternative would entail no construction or paving, and implementation of mitigation measures from the proposed project would not be required.

Geology and Soils

The No Project Alternative avoids potential impacts to geology and soils that could result from the implementation of the proposed project. This alternative would entail no construction or paving, and implementation of mitigation measures from the proposed project would not be required.

Hazards and Hazardous Materials

The No Project Alternative avoids potential impacts to hazards and hazardous materials that could result from the implementation of the master plan. This alternative would entail no construction or paving, and implementation of mitigation measures from the proposed project would not be required.

Hydrology and Water Quality

Unlike the proposed project, the No Project Alternative would not be able to provide water conservation or landscaping opportunities. The No Project Alternative would not increase the amount of impervious surfaces on the project site. This alternative would avoid impacts related to hydrology and water quality expected to result from implementation of the proposed project; therefore, implementation of the specified Standard Urban Stormwater Management Program

requirements would not be required to reduce the impacts to receiving waters within the Arroyo Seco to below the level of significance.

Mineral Resources

The No Project Alternative avoids potential impacts to mineral resources that could result from the implementation of the proposed project. However, compared with the proposed project, the No Project alternative does not provide for opportunities to turn up arroyo stone, which could be used for the construction of signs and restoration of stone walls surrounding the proposed project area. This alternative would entail no construction and implementation of mitigation measures from the proposed project would not be required.

Noise

Under the No Project Alternative, noise levels would remain the same as those described under existing conditions in this EIR. The No Project Alternative would not generate any new source of noise, and would not require mitigation.

Public Services

The No Project Alternative avoids potential impacts to public services that could result from the implementation of the proposed project. This alternative would entail no construction or paving, and implementation of mitigation measures from the proposed project would not be required.

Recreation

The No Project Alternative avoids potential impacts to recreation that could result from the implementation of the proposed project. Unlike the proposed project, implementation of the No Project alternative would not require implementation of the specified mitigation measures. This alternative would entail no construction or closures, and therefore would not require signage to indicate construction or alternative recreation sources.

Transportation/Traffic

This alternative assumes that no additional development would be undertaken within the Upper, Central, and Lower Arroyo Seco plan areas, as well as no increase in Rose Bowl Events and no implementation of the design guidelines. This alternative would result in no significant impacts. However, unlike the proposed project, the No Project Alternative would not develop a traffic management plan for the Central Arroyo Seco that incorporates a Rose Bowl shuttle route. The system-wide operations have been as analyzed in the Year 2010 Pre-Project Conditions.

Utilities and Service Systems

The No Project Alternative avoids potential impacts to utilities and service systems that could result from the implementation of the proposed project. This alternative would entail no construction or paving, and implementation of mitigation measures from the proposed project would not be required.

4.2 ALTERNATIVE 2: OAK GROVE MULTI-USE PLAY FIELD

In February 2000, the Hahamongna Watershed Park Master Plan was conceptually approved by the Pasadena City Council. The council also requested the evaluation of an alternative that would take the relocated disc golf course proposal and consider an alternative for a multi-purpose athletic field on that site instead (Figure 4.2-1, *Alternative 2: Oak Grove Multi-Use Play Field Alternative*).

4.2.1 Objectives

The Oak Grove Multi-Use Play Field Alternative is capable of meeting all of the basic objectives except that it would not provide recreation facilities and programs to meet existing and 2020 planning horizon-projected levels of demand. The disc golf course would be relocated and the back nine holes would be removed as a result of the Oak Grove Multi-Use Play Field Alternative. Currently, there is a large demand for use of the disc golf course, especially during peak hours and weekends. The removal of the back nine holes would put pressure on demand for the only disc golf course in the proposed project area.

4.2.2 Comparative Impacts

Aesthetics

As with the proposed project, the Oak Grove Multi-Use Play Field alternative would result in the potential for short-term construction impacts to aesthetics. As with the proposed project, this alternative would include the construction of a parking structure in the Upper Arroyo. Implementation of the specified mitigation measures would reduce potential light and glare impacts, short-term parking structure impacts, and short-term construction impacts to a less than significant level. As with the proposed project, there would be long-term impacts to aesthetics as a result of this alternative.

Air Quality

As with the proposed project, the Oak Grove Multi Use Play Field Alternative would result in significant impacts related to air quality during construction requiring the consideration of the same mitigating measures recommended for the proposed project. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

Biological Resources

As with the proposed project, this development would take place in a ruderal/southern willow scrub habitat. Southern willow scrub is valuable habitat, and therefore, improvements in this area could cause significant impacts, necessitating mitigation measures to be considered.

Cultural Resources

As with the proposed project, the Oak Grove Multi-Use Play Field alternative would result in potential impacts to cultural resources. This alternative would not remove a project element; it would replace nine holes of the disc golf course with a multi-purpose field. The Oak Grove Multi-Use Play Field would result in the same impacts of the proposed project, requiring the consideration of mitigation measures. Implementation of the specified mitigation measures would reduce potential cultural resources and paleontological impacts to a less than significant level. As with the proposed project, there will be no long-term impacts to cultural resources as a result of this alternative.

Geology and Soils

As with the proposed project, the Oak Grove Multi-Use Play Field Alternative would result in significant impacts related to geology and soils during construction requiring the consideration of the same mitigating measures recommended for the proposed project. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

Hazards and Hazardous Materials

As with the proposed project, the Oak Grove Multi-Use Play Field Alternative would result in significant impacts related to hazards and hazardous materials during construction requiring the consideration of the same mitigating measures recommended for the proposed project. Implementation of the specified mitigation measures recommended for the proposed project would reduce impacts to below the threshold of significance.

Hydrology and Water Quality

As with the proposed project, the Oak Grove Multi-Use Play Field Alternative would result in significant impacts related to hydrology and water quality. There would be no decrease in impervious surface with this alternative as compared to the proposed project. As with the proposed project, implementation of the specified Standard Urban Stormwater Management Program would be required to reduce impacts to receiving waters within the Arroyo Seco to below the level of significance.

Mineral Resources

As with the proposed project, the Oak Grove Multi Use Play Field Alternative would result in significant impacts related to mineral resources during construction requiring the consideration of the same mitigating measures recommended for the proposed project. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

Noise

As with the proposed project, the Oak Grove Multi Use Play Field Alternative would result in significant impacts related to noise during construction requiring the consideration of the same mitigating measures recommended for the proposed project. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

Public Services

As with the proposed project, the Oak Grove Multi-Use Play Field Alternative would result in significant impacts related to public services during and after construction requiring the consideration of the same mitigating measures recommended for the proposed project. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

Recreation

As with the proposed project, the Oak Grove Multi-Use Play Field alternative would result in the potential for short-term construction impacts to recreation. Implementation of the specified mitigation measures would reduce impacts to a less than significant level. In this alternative, the Disc Golf course would be reduced from 18 holes to nine holes. The nine eliminated holes would be replaced by a multi-purpose athletic field. The reduction in size of the disc golf course would have a significant impact to recreational use in Oak Grove Park. Unlike the proposed project, this alternative would not provide recreation facilities and programs to meet existing and 2020 planning horizon-projected levels of demand, which would not meet project objectives.

Transportation/Traffic

This alternative assumes an increase in soccer fields in the Hahamongna Watershed Park by eliminating the back nine holes of the disc golf course to accommodate one additional adult soccer field (or up to two youth soccer fields).

The traffic generation forecast for the Alternative 2 project for the weekday a.m. and p.m. peak hours is summarized in Appendix H. The trip generation forecast for the Alternative 2 project was submitted for review and acceptance by City staff. This alternative would be expected to generate 23 net new vehicles trips (16 inbound and 7 outbound) during the weekday a.m. peak hour. During the weekday p.m. peak hour, the Alternative 2 project would be expected to generate 405 net new vehicle trips (180 inbound and 225 outbound). Over a 24-hour weekday period, the Alternative 2 project would be forecast to generate 3,516 net new daily trip ends during a typical weekday (approximately 1,758 inbound and 1,758 outbound).

The traffic generation forecast for the Alternative 2 project for the weekend peak hour is summarized in Appendix H. The trip generation forecast for the Alternative 2 project was submitted for review and acceptance by City staff. As shown in Appendix H, the Alternative 2 project would be expected to generate 462 net new vehicle trips (214 inbound and 248 outbound) during the weekend peak hour. Over a 24-hour weekend period, the Alternative 2 project is forecast to

generate 3,844 net new daily trip ends during a typical weekend day (approximately 1,922 inbound and 1,922 outbound).

It is expected that the Alternative 2 project would result in slightly larger impacts than the proposed project, primarily due to the increase in the number of youth soccer fields.

Utilities and Service Systems

As with the proposed project, the Oak Grove Multi-Use Play Field Alternative would result in significant impacts related to utilities and service systems during construction requiring the consideration of the same mitigating measures recommended for the proposed project. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

ALTERNATIVES 3 AND 4: The proposed project would locate a 1,200-space parking structure on the existing westside parking lot. There are two alternatives to be considered for this component of the proposed project.

4.3 ALTERNATIVE 3: EAST/WEST PARKING SOLUTION

The East/West Parking Solution alternative to the proposed project would provide for a smaller, 600-space parking structure on the westside lot, in addition to a comparably smaller 600-space parking lot on the eastside. This lot would be located near the new proposed restroom and newly configured surface parking lot that would be tucked into the slope and accessed by the Jet Propulsion Laboratory (JPL) access drive (Figure 4.3-1, *Alternative 3: East/West Parking Solution*).

4.3.1 Objectives

The East/West Parking Solution Alternative is capable of meeting all of the basic objectives of the project.

4.3.3 Comparative Impacts

Aesthetics

As with the proposed project, the East/West Parking Solution alternative would result in the potential for short-term construction impacts to aesthetics. Implementation of the specified mitigation measures would not reduce impacts to a less than significant level. This alternative would require building two parking structures in the Upper Arroyo, whereas the proposed project would require one. The existing view of the Upper Arroyo may be obstructed to a greater extent than would the proposed project. Impacts would be significant and unavoidable. Implementation of the specified mitigation measures would help to reduce impacts to aesthetics resulting from construction of two parking structures.

Air Quality

As with the proposed project, the Oak East/West Parking Solution alternative would result in significant impacts related to air quality during construction requiring the consideration of the same mitigating measures recommended for the proposed project. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

Biological Resources

As with the proposed project, this alternative would result in no significant impact to biological resources. The proposed parking sites are both in developed areas, and therefore have no significant biological value.

Cultural Resources

As with the proposed project, the East/West Parking Solutions Alternative would result in significant impacts to cultural resources during construction requiring the consideration of similar mitigation measures recommended for the proposed project. The building of two separate parking structures would result in more grading than the proposed project. In this alternative, the mitigation measures for grading must extend to the additional parking structure. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

Geology and Soils

As with the proposed project, the East/West Parking Solutions Alternative would result in significant impacts related to geology and soils during construction requiring the consideration of the same mitigating measures recommended for the proposed project. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

Hazards and Hazardous Materials

As with the proposed project, the East/West Parking Solutions Alternative would result in significant impacts related to hazards and hazardous materials during construction requiring the consideration of the same mitigating measures recommended for the proposed project. Implementation of the specified mitigation measures recommended for the proposed project would reduce impacts to below the threshold of significance.

Hydrology and Water Quality

As with the proposed project, the East/West Parking Solutions Alternative would result in significant impacts related to hydrology and water quality. There would be an increase in the amount of impervious surface with this alternative as compared to the proposed project. However, as with the proposed project, implementation of the specified Standard Urban Stormwater Management Program would be required to reduce the impacts to receiving waters within the Arroyo Seco to below the level of significance.

Mineral Resources

As with the proposed project, the East/West Parking Solution Alternative would result in significant impacts related to mineral resources during construction requiring the consideration of the same mitigating measures recommended for the proposed project. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

Noise

As with the proposed project, the Oak East/West Parking Solution alternative would result in significant impacts related to noise during construction requiring the consideration of the same mitigating measures recommended for the proposed project. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

Public Services

As with the proposed project, the East/West Parking Solutions Alternative would result in significant impacts related to hazards and hazardous materials during construction requiring the consideration of the same mitigating measures recommended for the proposed project. Implementation of the specified mitigation measures recommended for the proposed project would reduce impacts to below the threshold of significance.

Recreation

As with the proposed project, the East/West Parking Solution Alternative would result in the potential for short-term construction impacts to recreation. As with the proposed project, construction of this alternative would temporarily discontinue many recreational park activities. This would result in short-term construction impacts. Implementation of the specified mitigation measures would reduce impacts to a less than significant level. As with the proposed project, there would be no long-term adverse impacts to recreation as a result of the East/West Parking Solution Alternative.

Transportation/Traffic

This alternative assumes that there would be an East parking structure and a West parking structure in the Hahamongna Watershed Park to accommodate park users and JPL employees. Public access to the west parking structure during weekends would be provided via a new internal park roadway that would be closed during weekdays. It is envisioned that 600 parking spaces would be provided in each parking structure.

Since the forecast Alternative 3 project trip generation would be equivalent to the weekday and weekend trip generation forecast associated with the proposed project, Alternative 3 is anticipated to result in the same number and level of significant transportation impacts as the proposed project.

Utilities and Service Systems

As with the proposed project, the East/West Parking Solutions Alternative would result in significant impacts related to utilities and service systems during construction requiring the consideration of the same mitigating measures recommended for the proposed project. Implementation of the specified mitigation measures recommended for the proposed project would reduce impacts to below the threshold of significance.

4.4 ALTERNATIVE 4: TWO EAST SIDE PARKING STRUCTURES

The second alternative to the proposed eastside parking structure would provide for two smaller parking structures on the northeastern side of the basin, which include one 4-floor, 400-car lot and one 3-floor, 800-car lot. One would be north of the Behner treatment plant and above the Gabrieliño trail. The second building would be below the Gabrieliño trail. The Gabrieliño trail would serve as a one-way northerly entry drive and the JPL access way would serve as the exit road. The top floor of

the building below the Gabrieliño trail would not be any higher than the level of the trail (Figure 4.4-1, *Alternative 4: East Side Parking Structures*).

4.4.1 Objectives

The East Side Parking Structures Alternative would be capable of meeting all of the basic objectives of the project.

4.4.2 Comparative Impacts

Aesthetics

As with the proposed project, the East Side Parking Structures Alternative would result in the potential for short-term construction impacts to aesthetics. Implementation of the specified mitigation measures would not reduce impacts to a less than significant level. This alternative would require building two parking structures in the Upper Arroyo, whereas the proposed project would require one. Both structures would be visible from the Gabrieliño trail. The existing view of the Upper Arroyo may be obstructed to a greater extent than the proposed project. Impacts would be significant and unavoidable. Implementation of the specified mitigation measures would help to reduce impacts to aesthetics resulting from construction of two parking structures.

Air Quality

As with the proposed project, the East Side Parking Structures Alternative would result in significant impacts related to air quality during construction requiring the consideration of the same mitigating measures recommended for the proposed project. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

Biological Resources

The East Side Parking Structures Alternative could significantly impact sage scrub, a valuable natural community, along with previously developed areas. This would require the consideration of mitigation measures to reduce the impact to below the level of significance. The proposed project parking solution would only affect developed areas, thereby avoiding the need for mitigation measures.

Cultural Resources

As with the proposed project, the East Side Parking Structures Alternative would result in significant impacts to cultural resources during construction requiring the consideration of similar mitigation measures as recommended for the proposed project. The building of two separate parking structures would result in more grading than the proposed project. In this alternative, the mitigation measures for grading must extend to the additional parking structure. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

Geology and Soils

As with the proposed project, the East Side Parking Structures Alternative would result in significant impacts related to geology and soils during construction requiring the consideration of the same mitigating measures recommended for the proposed project. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

Hazards and Hazardous Materials

As with the proposed project, the East Side Parking Structures Alternative would result in significant impacts related to hazards and hazardous materials during construction requiring the consideration of the same mitigating measures recommended for the proposed project. Implementation of the specified mitigation measures recommended for the proposed project would reduce impacts to below the threshold of significance.

Hydrology and Water Quality

As with the proposed project, the East Side Parking Solutions Alternative would result in significant impacts related to hydrology and water quality. There would be no decrease in impervious surface with this alternative as compared to the proposed project. As with the proposed project, implementation of the specified Standard Urban Stormwater Management Program would be required to reduce the impacts to receiving waters within the Arroyo Seco to below the level of significance.

Mineral Resources

As with the proposed project, the East Side Parking Structures Alternative would result in significant impacts related to mineral resources during construction requiring the consideration of the same mitigating measures recommended for the proposed project. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

Noise

As with the proposed project, the East Side Parking Structures Alternative would result in significant impacts related to noise during construction requiring the consideration of the same mitigating measures recommended for the proposed project. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

Public Services

As with the proposed project, the East Side Parking Structures Alternative would result in significant impacts related to public services during and after construction requiring the consideration of the same mitigating measures recommended for the proposed project. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

Recreation

As with the proposed project, the East Side Parking Structures Alternative would result in the potential for short-term construction impacts to recreation. As with the proposed project, construction of this alternative would temporarily discontinue many recreational park activities. This would result in short-term construction impacts. Implementation of the specified mitigation measures would reduce impacts to a less than significant level. As with the proposed project, there would be no long term adverse impacts to recreation as a result of the East Side Parking Structures Alternative.

Transportation/Traffic

This alternative assumes that there would be two east side parking structures in Hahamongna Watershed Park to accommodate park users and JPL employees. The total number of parking spaces would be 1,200. This alternative assumes that there would be no net gain in existing parking currently available on the West side of Hahamongna Watershed Park.

As with the proposed project, the East Side Parking Structures Alternative would result in significant impacts related to utilities and service systems during construction requiring the consideration of the same mitigating measures recommended for the proposed project. Since the forecast Alternative 4 project trip generation would be equivalent to the weekday and weekend trip generation forecast associated with the proposed Arroyo Seco Master Plan project, this alternative is anticipated to result in the same number and level of significant transportation impacts as the proposed Arroyo Seco Master Plan project.

Utilities and Service Systems

As with the proposed project, the East Side Parking Structures Alternative would result in significant impacts related to utilities and service systems during construction requiring the consideration of the same mitigating measures recommended for the proposed project. Implementation of the specified mitigation measures recommended for the proposed project would reduce impacts to below the threshold of significance.

4.5 ALTERNATIVE 5: NO IMPACT ON DESIGNATED CRITICAL HABITAT

The U.S. Fish and Wildlife Service has designated critical habitat for the southwestern arroyo toad within the Arroyo Seco Master Plan Area. The Hahamongna Watershed Park Master Plan component of the Arroyo Seco Master Plan requires extensive grading within designated critical habitat. The grading required for the proposed project would require an individual permit from the U.S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act. To minimize potential effects on designated critical habitat for a federally listed endangered species, CEQA requires the consideration of alternatives that avoid or reduce potential effects. Alternative 5, No Impact on Designated Critical Habitat, removes all those elements that have the potential to impact the Designated Critical Habitat of the southwestern arroyo toad. The elements that are removed from the proposed project are depicted in Figure 4.5-1, *Alternative 5: No Impact on Designated Critical Habitat*.

4.5.1 Objectives

The No Impact on Designated Critical Habitat Alternative is not capable of meeting all of the basic objectives of the project. This Alternative would require the removal of the majority of the project components within the Hahamongna Watershed Park Element of the proposed project, which would not meet the objectives of achieve restoration/conservation of the natural environment due to the removal of many of the habitat restoration components within the Hahamongna Watershed Park. Due to the removal of many of the water conservation and flood management opportunities, the No Impact on Designated Critical Habitat Alternative would not meet the objectives of development and rehabilitation of Hahamongna Watershed Park consistent with the County of Los Angeles Department of Public Works flood control easement, operate and maintain flood control facilities to provide protection to downstream structures, neighborhoods, and communities from a capital storm event and optimize water conservation in the Arroyo Seco to serve City of Pasadena enterprises and residents. The No Impact on Designated Critical Habitat Alternative would remove components that have the opportunity to provide recreation facilities and programs to meet existing and 2020 planning horizon projected levels of demand. Many of the trail enhancements and improvements would be removed from the project, which would result in decreases in the enhancement of the existing internal system of trails to serve passive and active recreation uses within the Arroyo Seco. This alternative would also not provide for a multi-modal trail connection to the Rim of the Valley Trail and maintain connection to the Pacific Crest Trail and the County of Los Angeles Riding and Hiking Trails.

4.5.2 Comparative Impacts

Aesthetics

The No Impact on Designated Critical Habitat Alternative would result in fewer impacts to aesthetics than the proposed project. This alternative precludes construction in the watershed area of the Upper Arroyo Seco, thereby reducing impacts to aesthetics. Impacts to aesthetics outside of the watershed area would be the same as the proposed project, requiring the consideration of mitigation measures. Unlike the proposed project, implementation of the specified mitigation measures would reduce impacts to aesthetics to below the level of significance due to the elimination of the parking structure in the Upper Arroyo Seco.

Air Quality

The No Impact on Designated Critical Habitat Alternative would result in fewer impacts to air quality than the proposed project. This alternative precludes construction in the watershed area of the Upper Arroyo Seco, thereby reducing impacts to air quality. Impacts to air quality outside of the Upper watershed area would be the same as the proposed project, requiring the consideration of

mitigation measures. Implementation of the specified mitigation measures would reduce impacts to aesthetics to below the level of significance.

Biological Resources

The No Impact on Designated Critical Habitat Alternative would result in no significant impacts to critical habitat; therefore, no mitigation measures would be necessary. This alternative would preclude the watershed area of the park from some of the benefits of the proposed projects' habitat conservation plans. Sage scrub, riversidean alluvial fan sage scrub, streambed riparian, aquatic, and wetland comprise the communities that would not benefit from conservation efforts under this alternative.

Cultural Resources

The No Impact on Designated Critical Habitat Alternative would result in fewer impacts to cultural resources than the proposed project. This alternative precludes construction in the watershed area of the Upper Arroyo Seco, thereby reducing potential impacts to cultural resources. Impacts to cultural resources outside of the watershed area would be the same as the proposed project, requiring the consideration of mitigation measures. Implementation of the specified mitigation measures would reduce impacts to cultural resources to below the level of significance.

Geology and Soils

As with the proposed project, the No Impacts on Designated Critical Habitat Alternative would result in significant impacts related to geology and soils during construction requiring the consideration of the same mitigating measures recommended for the proposed project. The No Impact on Designated Critical Habitat Alternative would avoid impacts related to the construction of the West Arroyo Parking structure, the Westside spreading basins, the Westside children's play area, and the Gabrieliño trail area; water conservation measures, the east lake, the sunset overlook, the eastside park access, the pump back system, and trail development components that require construction. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

Hazards and Hazardous Materials

As with the proposed project, the No Impacts on Designated Critical Habitat Alternative would result in significant impacts related to hazards and hazardous materials during construction requiring the consideration of the same mitigating measures recommended for the proposed project. The No Impact on Designated Critical Habitat Alternative would avoid impacts related to the construction of the West Arroyo Parking structure, the Westside spreading basins, the Westside children's play area, and the Gabrieliño trail area; water conservation measures, the East Lake, the Sunset Overlook, the

eastside park access, the pump back system, and trail development components that require construction, but would not avoid construction impacts identified in the remainder of the proposed project. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

Hydrology and Water Quality

Unlike the proposed project, the No Impact on Designated Critical Habitat Alternative would not be able to provide water conservation or landscaping opportunities that would protect water quality within the proposed project watershed. As with the proposed project, the No Impact on Designated Critical Habitat Alternative would result in significant impacts related to hydrology and water quality during construction requiring the consideration of the same mitigating measures recommended for the proposed project. However, the No Impact on Designated Critical Habitat Alternative would avoid impacts related to the construction of the West Arroyo Parking structure, the Westside spreading basins, the Westside children's play area, and the Gabrieliño trail area; water conservation measures, the east lake, the sunset overlook, the eastside park access, the pump back system, and trail development components that require construction. The No Impact to Designated Critical Habitat would result in a decrease in the amount of impervious surface that would result in the implementation of the proposed project. As with the proposed project, implementation of the specified Standard Urban Stormwater Management Program would be required to reduce the impacts to receiving waters within the Arroyo Seco to below the level of significance.

Mineral Resources

As with the proposed project, the No Impact on Designated Critical Habitat Alternative would result in significant impacts related to mineral resources during construction requiring the consideration of the same mitigating measures recommended for the proposed project. The No Impact to Designated Critical Habitat Alternative still includes construction of the project elements that have the potential to turn up large amounts of mineral resources. However, as with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

Noise

The No Impact on Designated Critical Habitat Alternative would result in fewer impacts related to noise than the proposed project. This alternative precludes construction in the watershed area of the Lower Arroyo Seco, thereby reducing potential impacts to noise. Impacts to noise outside of the watershed area will be the same as the proposed project, requiring the consideration of mitigation measures.

Public Services

As with the proposed project, the No Impacts on Designated Critical Habitat Alternative would result in significant impacts related to public services during and after construction requiring the consideration of the same mitigating measures recommended for the proposed project. The No Impact on Designated Critical Habitat Alternative would avoid impacts related to the construction of the West Arroyo Parking structure, the Westside spreading basins, the Westside children's play area, and the Gabrieliño trail area, water conservation measures, the east lake, the sunset overlook, the eastside park access, the pump back system, and trail development components that require construction, but would not avoid impacts identified in the remainder of the proposed project. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

Recreation

The No Impact on Designated Critical Habitat Alternative would result in fewer impacts to recreation than the proposed project. This alternative precludes construction in the watershed area of the Lower Arroyo Seco, reducing the number of project elements, and thereby reducing impacts to recreation. Impacts to recreation outside of the watershed area would be the same as the proposed project, requiring the consideration of mitigation measures. Implementation of the specified mitigation measures would reduce impacts to aesthetics to below the threshold of significance.

Transportation/Traffic

The No Impact on Designated Critical Habitat Alternative assumes that there would be no impacts to designated critical habitat of the Arroyo Toad. From a transportation perspective when compared to the proposed project, this would involve the elimination of the East and West Lakes, the Sunset Overlook and the Interpretive Area/Parking.

The traffic generation forecast for the No Impact on Designated Critical Habitat Alternative for the weekday a.m. and p.m. peak hours is summarized in Appendix H. The trip generation forecast for the Alternative 5 project was submitted for review and acceptance by City staff. The No Impact on Designated Critical Habitat Alternative is expected to generate 12 net new vehicles trips (8 inbound and 4 outbound) during the weekday a.m. peak hour. During the weekday p.m. peak hour, the Alternative 5 project is expected to generate 312 net new vehicle trips (141 inbound and 171 outbound). Over a 24-hour weekday period, this alternative is forecasted to generate 2,634 net new daily trip ends during a typical weekday (approximately 1,317 inbound and 1,317 outbound).

The traffic generation forecast for this alternative for the weekend peak hour is summarized in Appendix H. The trip generation forecast for this alternative was submitted for review and acceptance by City staff. The No Impact on Designated Critical Habitat Alternative is expected to generate 336 net new vehicles trips (156 inbound and 180 outbound) during the weekend peak hour. Over a 24-hour weekend period, this alternative is forecasted to generate 2,810 net new daily trip ends during a typical weekend day (approximately 1,405 inbound and 1,405 outbound). This alternative would likely result in fewer significant impacts than the proposed project.

Utilities and Service Systems

As with the proposed project, the No Impacts on Designated Critical Habitat Alternative would result in significant impacts related to utilities and service systems during construction requiring the consideration of the same mitigating measures recommended for the proposed project. The No Impact on Designated Critical Habitat Alternative would avoid impacts related to the construction of the West Arroyo Parking structure, the Westside spreading basins, the Westside children's play area, and the Gabrieliño trail area, water conservation measures, the East Lake, the Sunset Overlook, the eastside park access, the pump back system, and trail development components that require construction, but would not avoid construction impacts identified in the remainder of the proposed project. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

4.6 ALTERNATIVE 6: STAFF RECOMMENDED ALTERNATIVE

The Staff Recommended Alternative (Appendix A, *Staff Recommended Alternative*) was formulated based on comments received during the public review period. The City of

Pasadena developed the staff recommended alternative, which clarifies, revises, removes and adds project elements as compared with the proposed project (Figure 4.6-1a, Alternative 6: *Staff Recommended Alternative - Hahamongna Watershed Park Master Plan,* 4.6-1b, Alternative 6: *Staff Recommended Alternative – Central Arroyo Seco Master Plan,* 4.6-1c, Alternative 6: Staff Recommended Alternative - *Lower Arroyo Seco Master Plan*). Alternative 6, Staff Recommended Alternative removes all those elements that had a high controversy and determined that if removed the alternative would still meet the goal and objectives.

4.6.1 Objectives

The Staff Recommended Alternative is capable of meeting all of the basic objectives of the project.

4.6.2 Comparative Impacts

Aesthetics

The Staff Recommended Alternative would result in fewer impacts to aesthetics than the proposed project. This alternative precludes construction of the West Arroyo Parking structure in the Hahamongna Watershed Park Master Plan area, thereby reducing significant impacts to aesthetics. The staff recommended alternative would also remove a variety of other elements in the Arroyo including the southern entrance, pedestrian bridge and some additional lighting in the Lower Arroyo Seco Master Plan area. Mitigation Measure 5 would no longer be needed to mitigate impacts associated with the development of the parking structure, however, short term impacts during construction would still exist, therefore requiring the implementation of mitigation measures that would reduce impacts to aesthetics to below the level of significance.

Air Quality

The Staff Recommended Alternative would result in fewer impacts to air quality than the proposed project. This alternative precludes construction of the West Arroyo Parking structure in the Hahamongna Watershed Park Master Plan area, as well as a variety of other elements, thereby reducing impacts to air quality. However, impacts to air quality would remain the same from construction of elements not removed from the proposed project, therefore requiring the consideration of mitigation measures Air-1 through Air-11. There would be a short term impact on air quality during construction related to nitrogen oxide (NOx) and particulate matter greater then 10 microns in diameter (PM-10) emissions.

Biological Resources

The Staff Recommended Alternative would result in fewer impacts to biological resources than the proposed project. This alternative precludes construction of the West Arroyo Parking structure, as well as a variety of other elements within the Arroyo Seco Master Plan area. Due to the removal of the MWD property in this alternative, the existing plant communities would be revised (Figure 4.6.2-1, *Staff Recommended Alternative – Existing Terrestrial Natural Plant Communities*). This alternative also revised the habitat restoration areas to include increased/decreased conservation areas (Figure 4.6.2-2, *Staff Recommended Alternative – Proposed Terrestrial Natural Plant Communities*). However, impacts to biological resources would remain the same from construction of elements not removed from the proposed project, therefore requiring Implementation of the specified mitigation measures to reduce impacts to biological resources to below the level of significance.

Cultural Resources

The Staff Recommended Alternative would result in fewer impacts to cultural resources than the proposed project. This alternative precludes construction of a variety of project elements, including the removal of the parking structure, thereby reducing potential impacts to cultural resources and the need to implement Mitigation Measure Cultural-1. Impacts to cultural resources would still required for components not removed from the proposed project, thus requiring the consideration of mitigation measures. Implementation of the specified mitigation measures would reduce impacts to cultural resources to below the level of significance.

Geology and Soils

The Staff Recommended Alternative would result in fewer impacts to geology and soils than the proposed project. This alternative precludes construction of the West Arroyo Parking structure in the Hahamongna Watershed Park Master Plan area, as well as a variety of other elements, thereby reducing impacts associated with geology and soils. The Staff Recommended Alternative does, however, include a proposal to either stabilize the slope or perform a slope stabilization study in order to determine the slope at and near La Casita. However, impacts to geology and soils would remain the same from construction of elements not removed from the proposed project, therefore requiring the consideration of mitigation measures. Implementation of the specified mitigation measures would reduce impacts associated with geology and soils to below the level of significance.

Hazards and Hazardous Materials

As with the proposed project, the Staff Recommended Alternative would result in significant impacts related to hazards and hazardous materials during construction requiring the consideration of the same mitigating measures recommended for the proposed project. The Staff Recommended Alternative would avoid impacts related to the construction of the West Arroyo Parking structure, the pedestrian bridge in the Lower Arroyo Seco, as well as a variety of other development components that require construction, but would not avoid construction impacts identified in the remainder of the proposed project. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

Hydrology and Water Quality

As with the proposed project, the Staff Recommended Alternative would result in significant impacts to hydrology and water quality during the construction and operation of project elements requiring the consideration of the same mitigation measures recommended for the proposed project. The Staff Recommended Alternative would avoid impacts related to the construction of the West Arroyo Parking structure, as well as avoid impacts to groundwater by implementing project elements within the perclorate contaminated areas until after NASA/JPL approval. Therefore, the Staff Recommended Alternative would result in fewer impacts than the proposed project. As with the proposed project, implementation of the specified Standard Urban Stormwater Management Program and the Best Management Practices would be required to reduce the impacts to receiving waters within the Arroyo Seco to below the level of significance.

Mineral Resources

As with the proposed project, the Staff Recommended Alternative would result in significant impacts related to mineral resources during construction requiring the consideration of the same mitigating measures recommended for the proposed project. The Staff Recommended Alternative would still include construction of the project elements that have the potential to turn up large amounts of mineral resources. However, as with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

Noise

The Staff Recommended Alternative would result in fewer impacts related to noise than the proposed project. This alternative precludes construction of a variety of components within the Arroyo Seco Master Plan area, including construction of the West Arroyo Parking structure, thereby reducing potential impacts to noise. Impacts to noise associated with

elements that are the same as those of the proposed project will be the same, requiring the consideration of mitigation measures.

Public Services

As with the proposed project, the Staff Recommended Alternative would result in significant impacts related to public services during and after construction requiring the consideration of the same mitigating measures recommended for the proposed project. The Staff Recommended Alternative would avoid impacts related to the construction of the West Arroyo Parking structure, as well as a variety of other project, thereby reducing potential impacts to public services. Impacts to public services associated with elements that are remaining in the staff recommended alternative as compared with the proposed project will be the same, requiring the consideration of the same mitigation measures.

Recreation

The Staff Recommended Alternative would result in fewer impacts to recreation than the proposed project. This alternative precludes construction of the southern entrance in the Lower Arroyo Seco, thereby reducing impacts to recreation. However, impacts would remain for those project elements that would not be removed as compared with the proposed project, thus requiring the consideration of mitigation measures. Implementation of the specified mitigation measures would reduce impacts to recreation to below the threshold of significance.

Transportation/Traffic

The Staff Recommended Alternative assumes that there would be the removal of a variety of elements from the proposed project, including the elimination of the West Arroyo Parking structure. This would eliminate the impacts related to the construction of the parking structure. However, impacts would remain for those project elements that would not be removed as compared with the proposed project, thus requiring the consideration of mitigation measures. Implementation of the specified mitigation measures would reduce impacts to transportation and traffic to below the threshold of significance.

Utilities and Service Systems

As with the proposed project, the Staff Recommended Alternative would result in significant impacts related to utilities and service systems during construction requiring the consideration of the same mitigating measures recommended for the proposed project. The Staff Recommended Alternative would avoid impacts related to the construction of the West Arroyo Parking structure, the southern entrance in the Lower Arroyo Seco Master plan area as well as a variety of other elements that are removed in this alternative as compared with the proposed project that require construction, but would not avoid construction impacts identified in the remainder of the proposed project. As with the proposed project, implementation of the specified mitigation measures would reduce impacts to below the threshold of significance.

4.76 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

4.76.1 No Project

The range of alternatives to the proposed project includes those alternatives that could feasibly accomplish most of the basic objectives of the proposed project and that could avoid or substantially lessen one or more of the significant effects. While the No Project Alternative does not accomplish most of the basic objectives of the proposed project, it would avoid significant impacts related to aesthetics, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, mineral resources, noise, public services, recreation, transportation/traffic, and utilities and service systems resulting from the proposed project. Although not capable of meeting most of the basic objectives of the proposed project, the No Project alternative would be identified as the Environmentally Superior Alternative due to its ability to avoid significant impacts associated with the proposed project.

4.76.2 No Impact on Designated Critical Habitat

In the event that the No Project Alternative is identified as the Environmentally Superior Alternative, CEQA stipulates that the *Master EIR* must also identify an Environmentally Superior Alternative among the action alternatives that are capable of meeting most of the basic objectives of the proposed project. The No Impact on Designated Critical Habitat Alternative has been identified as the Environmentally Superior Alternative that is capable of meeting most of the basic objectives of the proposed project.

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