HAHAMONGNA WATERSHED PARK
MASTER PLAN ADDENDUM

FOR THE

HAHAMONGNA ANNEX

DRAFT
INITIAL STUDY

PREPARED FOR THE:

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TABLE OF CONTENTS

PAGE

1.0 Introduction 1-1
- 1.1 Project History 1-1
- 1.2 Relationship of the Initial Study for HMP Addendum to the Arroyo Seco Master EIR 1-2
- 1.3 CEQA Requirements 1-3
- 1.4 Approach to Evaluation of Environmental Impact 1-4

2.0 Project Description 2-1
- 2.1 Project Location 2-1
- 2.2 Site Characteristics 2-4
- 2.3 Project Objectives 2-11
- 2.4 Project Characteristics 2-14
- 2.5 Intended Uses of the Initial Study 2-30

3.0 Environmental Checklist Form 3-1
- 3.1 Aesthetics 3-3
- 3.2 Agricultural Resources 3-6
- 3.3 Air Quality 3-7
- 3.4 Biological Resources 3-15
- 3.5 Cultural Resources 3-23
- 3.6 Energy 3-29
- 3.7 Geology and Soils 3-30
- 3.8 Hazards and Hazardous Materials 3-34
- 3.9 Hydrology and Water Quality 3-40
- 3.10 Land Use and Planning 3-46
- 3.11 Mineral Resources 3-48
- 3.12 Noise 3-48
- 3.13 Population and Housing 3-51
- 3.14 Public Services 3-52
- 3.15 Recreation 3-55
- 3.16 Transportation/Traffic 3-55
- 3.17 Utilities and Service Systems 3-62
- 3.18 Mandatory Findings of Significance 3-70

PAGE

4.0 Focused Analysis of Bikeways and Trails 4-1
4.1 Characteristics of the Bikeway and Trail Along the Northern Property Boundary.. 4-1
4.2 Characteristics of Other Existing Trails and Proposed Trail Improvements 4-5
4.3 Characteristics of the Suggested Perimeter Trail Bikeway 4-6
4.4 Characteristics of the Suggested Sub Trail Options 1 and 2 4-6
4.5 Environmental Evaluation of Bikeways and Trails 4-7

5.0 Determination 5-1

6.0 References 6-1

LIST OF EXHIBITS

PAGE

Exhibit 2.1 Regional Location Map 2-2
Exhibit 2.2 Project Location Map 2-3
Exhibit 2.3 Existing Uses and Facilities on the Hahamongna Annex Site 2-6
Exhibit 2.4 Existing Site Drainage 2-10
Exhibit 2.5 Proposed HMP Addendum Plan 2-15
Exhibit 2.6 Proposed Amended Hahamongna Watershed Park Master Plan 2-16
Exhibit 2.7 Proposed Mobility Plan 2-28
Exhibit 2.8 Proposed Parking Plan 2-29
Exhibit 3.1 Plant Communities within the Annex 3-17
Exhibit 4.1 Draft Alignments for the Bikeway and Trail Along the Northern Property Boundary 4-3
Exhibit 4.2 Bikeways and Trails Considered During the Master Plan Addendum Process 4-4

LIST OF TABLES

Table 2.1 Project Location 2-1
Table 2.2 Environmental Education Center Components and Other Site Buildings 2-17
Table 2.3 Equestrian Facility Components 2-20
Table 3.3.1 Estimated Construction Emissions 3-9
Table 3.3.2 Estimated Area and Operational Emissions 3-10
Table 3.16.1 City of Pasadena Intersection Impact Significance Thresholds 3-57
Table 3.16.2 Volume to Capacity Ratios and Level of Service Analysis 3-58
Table 3.17.1 Wastewater Generation 3-64
Table 4.1 Focused Environmental Evaluation of the Bikeway and Trails Considered During the Master Plan Addendum Process 4-8
Table 4.2 Trees Impacted by the Bikeway and Trail Along the Northern Property Boundary 4-23

APPENDICES

A URBEMIS Model Output

B Groundwater Collection and Sample Logs

C Soil Sampling Report

D Traffic Impact Study

E U.S. Forest Service Station Fire Reports

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1.0 INTRODUCTION

This Initial Study analyzes the potential environmental impacts of the proposed Hahamongna Watershed Park (the Upper Arroyo portion of the Arroyo Seco Master Plan) Master Plan Addendum for the Hahamongna Annex in the City of Pasadena, California. This Initial Study has been prepared to meet all of the substantive and procedural requirements of the California Environmental Quality Act (CEQA) of 1970 (California Public Resources Code Section 21000 et seq.), the State CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq. as amended through January 1, 2009) and the City of Pasadena's Environmental Guidelines.

The proposal consists of amending the Hahamongna Watershed Park Master Plan (HWP Master Plan or HMP) to incorporate the proposed HMP Addendum, which would establish a vision for the Hahamongna Annex site. If approved, the HWP Addendum would become a component of the HWP Master Plan.

1.1 PROJECT HISTORY

On April 14, 2003, the City of Pasadena certified a Master Environmental Impact Report (EIR)[1] as the CEQA document for the Arroyo Seco Master Plan and its four components—the *Hahamongna Watershed Park Master Plan* (HMP), the *Central Arroyo Seco Master Plan* (CAMP), the *Lower Arroyo Seco Master Plan* (LAMP), and the *Design Guidelines for the Arroyo Seco*.

The *Hahamongna Watershed Park Master Plan* (HMP) is a land use plan for 300 acres of the Hahamongna Watershed Park (HWP), which it total encompasses approximately 1,300 acres of open space that extends northward from Devil's Gate Dam into the Arroyo Seco Canyon. The current iteration of the HMP was adopted by the City of Pasadena in 2003 and establishes a visionary framework for recreation, water resources, flood management, habitat restoration, and cultural resources in this area. The HWP is managed and maintained by the City of Pasadena's Department of Public Works, Parks and Natural Resources Division.

In 2005, pursuant to the Surplus Lands Act, the City of Pasadena purchased an additional 30 acres of land adjacent to HWP, currently referred to as the Hahamongna Annex. This land had previously been owned by the Metropolitan Water District of Southern California (MWD). The City now proposes to amend the HMP to include the Hahamongna Annex.

The Master EIR for the Arroyo Seco Master Plan (referred to hereafter as Arroyo Seco Master EIR or MEIR) included the Hahamongna Annex as part of the project site, and baseline investigations conducted for the MEIR evaluated the Annex site. However, the existing HMP did not identify any improvements or physical changes for the Annex site; consequently, the MEIR did not evaluate the environmental impacts of any physical changes in the Hahamongna Annex. The City is now proposing to amend the HMP to specify the intended uses and corresponding improvements for the

[1] Master Environmental Impact Report for the Arroyo Seco Master Plan, State Clearinghouse Number 2000091062, Certified April, 14, 2003.

Hahamongna Annex. Accordingly, this Initial Study evaluates the potential environmental impacts of these proposed uses and improvements.

1.2 RELATIONSHIP OF THE INITIAL STUDY FOR THE HMP ADDENDUM TO THE ARROYO SECO MASTER EIR

The proposed project is an Amendment to the HMP, which is a component of the Arroyo Seco Master Plan. The City of Pasadena certified the Master EIR for the entire Arroyo Seco Master Plan in 2003. Given that previously approved HMP did not identify any improvements or physical changes for the Annex site, the Arroyo Seco MEIR did not expressly evaluate the environmental impacts of future physical improvements on the Annex site. However, the Arroyo Seco Master EIR did include the Hahamongna Annex as part of project site, and baseline investigations conducted for the MEIR evaluated the Annex site. In addition, the project location is contiguous with the existing HWP and the proposed uses are consistent with those proposed for the HWP, as identified in Section 2.0 of the Arroyo Seco Master EIR. The proposed Annex would function as an extension of the Watershed Park, not as a stand-alone facility. Furthermore, the existing uses of the subject property would either remain the same or would lessen in intensity, with the exception of public assembly uses proposed for the former U.S. Forest Service buildings.

CEQA allows for the limited environmental review of subsequent projects following a Master EIR. Accordingly, this Initial Study (IS) evaluates the potential environmental impacts of the proposed HMP Addendum and compares those impacts to the impacts evaluated in the Arroyo Seco Master EIR. This Initial Study utilizes the familiar framework identified in CEQA Guidelines § 15162 to:

1. Determine whether the proposed HMP Addendum activities may cause any additional significant effects which were not analyzed in the Arroyo Seco Master EIR pursuant to Public Resources Code (PRC) § 21157.1 and State CEQA Guidelines § 15177;

2. Determine whether the "Limitations on the Use of a Master EIR" have been exceeded pursuant to PRC § 21157.6 and State CEQA Guidelines § 15179; and

3. Identify the mitigation measures from the Master EIR that are applicable to the HMP Addendum.

Section 15150 (a) of the State CEQA Guidelines states that a CEQA document "may incorporate by reference all or portions of another document which is a matter of public record or is generally available to the public. Where all or part of another document is incorporated by reference, the incorporated language shall be considered to be set forth in full as part of the text of the [CEQA document]." Due to the direct relationship between the Arroyo Seco Master Plan and the proposed HMP Addendum, the Arroyo Seco Master EIR is incorporated herein by reference in its entirety (Arroyo Seco Master Plan Final Master Environmental Impact Report, April 14, 2003, State Clearinghouse Number 2000091062). This document is available for review upon request at the City of Pasadena, Permit Center (Hale Building), 175 N. Garfield Avenue, Pasadena CA 91101 during normal business hours. The Master EIR is also posted on the City of Pasadena website at: http://www.ci.pasadena.ca.us/publicworks/PNR/ArroyoSeco (see tab *Arroyo Seco Master Environmental Impact Report*).

1.3 CEQA REQUIREMENTS

The City of Pasadena is given the responsibility of approving or denying the proposed HMP Addendum. Pursuant to CEQA, the City of Pasadena is the Lead Agency and, as part of their decision making process, the Lead Agency must consider the project's environmental consequences.

In accordance with CEQA, when a Lead Agency considers further discretionary approval on a previously approved project (in this case, an Addendum to a previously approved Master Plan), the Lead Agency is required to consider if the previously certified/adopted CEQA document provides adequate basis for rendering a decision on the proposed discretionary action. In summary, when making such a decision, the Lead Agency must consider any changes to the project or its circumstances that have occurred and any new information that has become available since the project's CEQA document was adopted/certified.

More specifically, for a subsequent projects following a Master EIR, the lead agency must (1) determine if the subsequent project may cause any additional significant effects which were not analyzed in the Master EIR pursuant to Public Resources Code (PRC) § 21157.1 and State CEQA Guidelines § 15177, and (2) determine if the "Limitations on the Use of a Master EIR" have been exceeded pursuant to PRC § 21157.6 and State CEQA Guidelines § 15179. If the Initial Study determines that the subsequent project will not cause any additional significant effects which were not analyzed in the Master EIR and that none of the limitations on the use of the Master EIR have been exceeded, no new CEQA document is required for the project. If the Initial Study does not support the aforementioned conclusions, the City must prepare a Mitigated Negative Declaration, Focused EIR, Subsequent EIR, or Supplemental EIR.

State CEQA Guidelines § 15177(c) provides basis for determining if a project may cause any additional significant effects which were not analyzed in a Master EIR. This Section states, "Whether a subsequent project is within the scope of the Master EIR is a question of fact to be determined by the lead agency based upon a review of the initial study to determine whether there are additional significant effects or new additional mitigation measures or alternatives required of the subsequent project that are not already discussed in the Master EIR." Section 15179 of the State CEQA Guidelines identifies the limitations on the use of a Master EIR. For a Master EIR that was certified more than five years prior to the filing of an application for a subsequent project, Part (b)(1) of this Section requires the lead agency to consider if "substantial changes have occurred with respect to the circumstances under which the Master EIR was certified" or if there is "new available information which was not known and could not have been known at the time the Master EIR was certified".

This Initial Study utilizes the familiar framework identified in CEQA Guidelines § 15162 to determine if proposed HMP Addendum activities may cause any additional significant effects which were not analyzed in the Arroyo Seco Master EIR and to determine if the limitations on the use of a Master EIR have been exceeded. State CEQA Guidelines Section 15162 states:

(a) When an EIR has been certified or negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

(1) Substantial changes are proposed in the project which will require major revision of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:

A. The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

B. Significant effects previously examined will be substantially more severe than shown in the previous EIR;

C. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

D. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

1.4 APPROACH TO EVALUATION OF ENVIRONMENTAL IMPACTS

This Initial Study utilizes the City of Pasadena's Environmental Checklist Form as a framework to (1) determine if the proposed HMP Addendum activities may cause any additional significant effects which were not analyzed in the Master EIR pursuant to Public Resources Code (PRC) § 21157.1 and State CEQA Guidelines § 15177, and (2) determine if the "Limitations on the Use of a Master EIR" have been exceeded pursuant to PRC § 21157.6 and State CEQA Guidelines § 15179.

The HMP Addendum is a program-level document, and thus this Initial Study analyzes the potential environmental effects of the project elements described in Section 2.0 at the program level, with one exception. At the request of the public, the bikeway and pedestrian/equestrian trails described in

Section 2.4.5 were analyzed at the project level. As the remainder of the projects described in Section 2.0 become reasonably foreseeable, the City will undertake further appropriate environmental review as required by CEQA.

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2.0 PROJECT DESCRIPTION

The proposed HMP Addendum consists of an Amendment to the Hahamongna Watershed Park Master Plan (the Upper Arroyo portion of the Arroyo Seco Master Plan) to include approximately 30 acres of newly purchased land into the park and propose a vision for the future use of this new parkland. If adopted, the HMP Addendum would become a component of the HWP Master Plan and would designate the Annex site for an environmental education center with conference facilities, the first City-owned public equestrian facility, natural open space, passive recreational facilities, and ancillary infrastructure and maintenance facilities, while maintaining the existing Los Angeles Fire Camp 2, which occupies six acres of the site.

2.1 PROJECT LOCATION

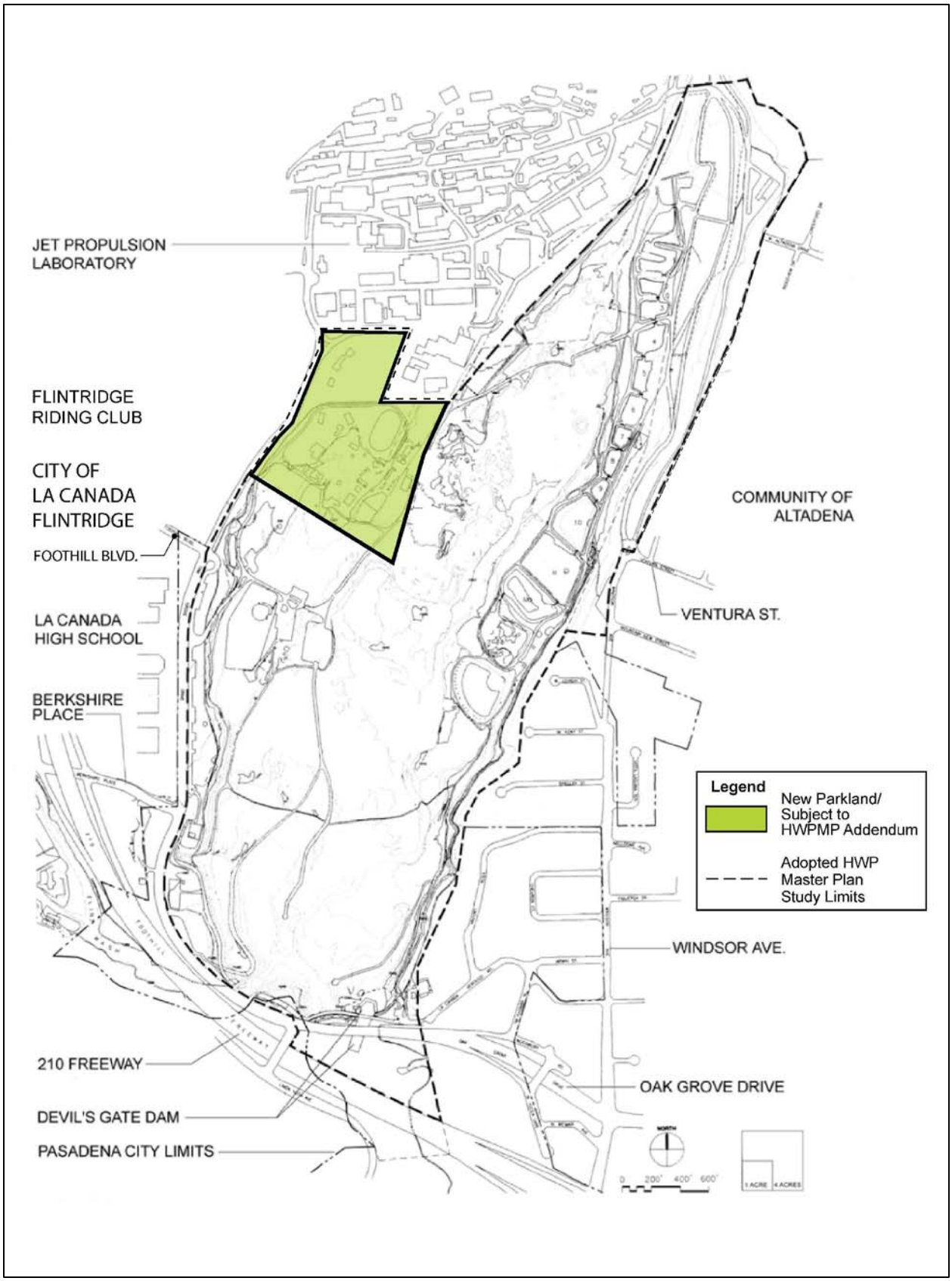
The area proposed for annexation is located immediately northwest of the existing Hahamongna Watershed Park (HWP), along the east side of Oak Grove Drive, approximately 500 feet north of Foothill Boulevard. The approximately 30-acre site is roughly "L" shaped and is surrounded by the Jet Propulsion Laboratory (JPL) to the north, the Oak Grove area of HWP to the south, La Cañada High School across Oak Grove Drive to the west, and the Devils Gate Reservoir to the east. See Table 2.1 and Exhibits 2.1 and 2.2.

Table 2.1
Project Location

Existing Use	U.S. Forest Service Oak Grove Station (abandoned), Rose Bowl Riders/MACH1/Tom Sawyer Camps Equestrian Facilities, Los Angeles County Fire Camp 2, and open space/natural land.
Street Address	4600 Oak Grove Drive (north of Foothill Boulevard and south of Forest Camp [Surveyor] Road)
City	Pasadena
County, State	Los Angeles County, California
Assessor Parcel Numbers	5823-003-911
Acreage	29.48
Shape	Irregular
Thomas Guide Map Page	535
USGS 7.5" Quadrangle	Pasadena, California
Section/Township/Range	Unsectioned / 1N / 12W
Latitude/Longitude	34°11'47" N / 118°10'28" W

Exhibit 2.1 Regional Location Map

Exhibit 2.2 Project Location Map



2.2 SITE CHARACTERISTICS

2.2.1 EXISTING USES AND SITE CONDITIONS

The project site currently contains the facilities and uses listed below and depicted on Exhibit 2.3.

1. The abandoned U.S. Forest Service Oak Grove Station comprises approximately seven acres in the west portion of the site. This abandoned facility includes:

   - barracks (three single-story structures);
   - a mess/dining hall;
   - an administration building with attached large storage area;
   - a permanent residence with garage;
   - arroyo stone retaining walls that supported the pads where two mobile home units were formerly situated;
   - a storage yard area;
   - two pre-fabricated metal maintenance buildings;
   - a pre-fabricated metal nursery building and plant nursery growing beds; and
   - an open metal roofed storage and welding shed.

2. The existing equestrian uses comprise approximately 12 acres in the east portion of the site. The current equestrian tenants are: Rose Bowl Riders, Move A Child Higher (MACH1), and Tom Sawyer Camps. Facilities within these equestrian areas include:

   - equestrian performance/exercise areas: main arena, a smaller oval arena, a jumping arena, and two pens;
   - various horse boarding facilities: including barns, horse stalls, corrals, a tack room, and a wash rack;
   - A main clubhouse building; and
   - Tom Sawyer Camps' operational facilities: including a mobile home unit for the camp operations foreman, a paved area where camp vans formerly parked, a maintenance/storage area and a small group play area.

3. An oak woodland that comprises three acres in the southwest corner of the site.

4. A common area along the site's eastern boundary that includes a park trail/emergency access, an arroyo stone stockpile, an equestrian waste management area, and some weedy vegetated areas.

5. A common area along the site's western boundary that includes a park access road, oak woodland, and a trail along an arroyo stone retaining wall.

6. The following three land segments that each abut the JPL campus:

   - A trail corridor along the eastern edge of the L.A. County Fire Camp 2 area; this is a dirt trail that is approximately 5-8 ft. wide. There is one mature coast live oak in the middle of this trail.

   - An easement that provides the primary vehicular passage via a paved 22 ft. wide right-of-way (ROW) with one lane of travel in either direction into and out of the eastern JPL campus and the west parking lot; and

   - A trail corridor north of and parallel to northerly boundary of the equestrian facility, that connects to the park access road on the west and to the Hahamongna basin on the east. This dirt trail is 6 ft. in width and lies in a corridor that is 8-18 ft. in width. Fifty-one (51) trees exist within and along this corridor, including 16 oaks, 1 cypress, 1 sugar bush, 1 sycamore, and 32 non-natives. There are also shrubs along the 6-ft. tall chain link fence that defines the southern edge of the trail corridor. This trail is used by mountain bikers, pedestrians, and equestrians.

7. The Los Angeles County Fire Camp 2 comprises six acres in the northwest portion of the site. No improvements or modifications are proposed for this facility, which would remain as a countywide training, conference, and foothill fire response facility.

8. Southern California Edison (SCE or Edison) maintains an overhead transmission line and corresponding power poles located along the site's eastern boundary.

Exhibit 2.3 Existing Uses and Facilities on the Hahamongna Annex Site

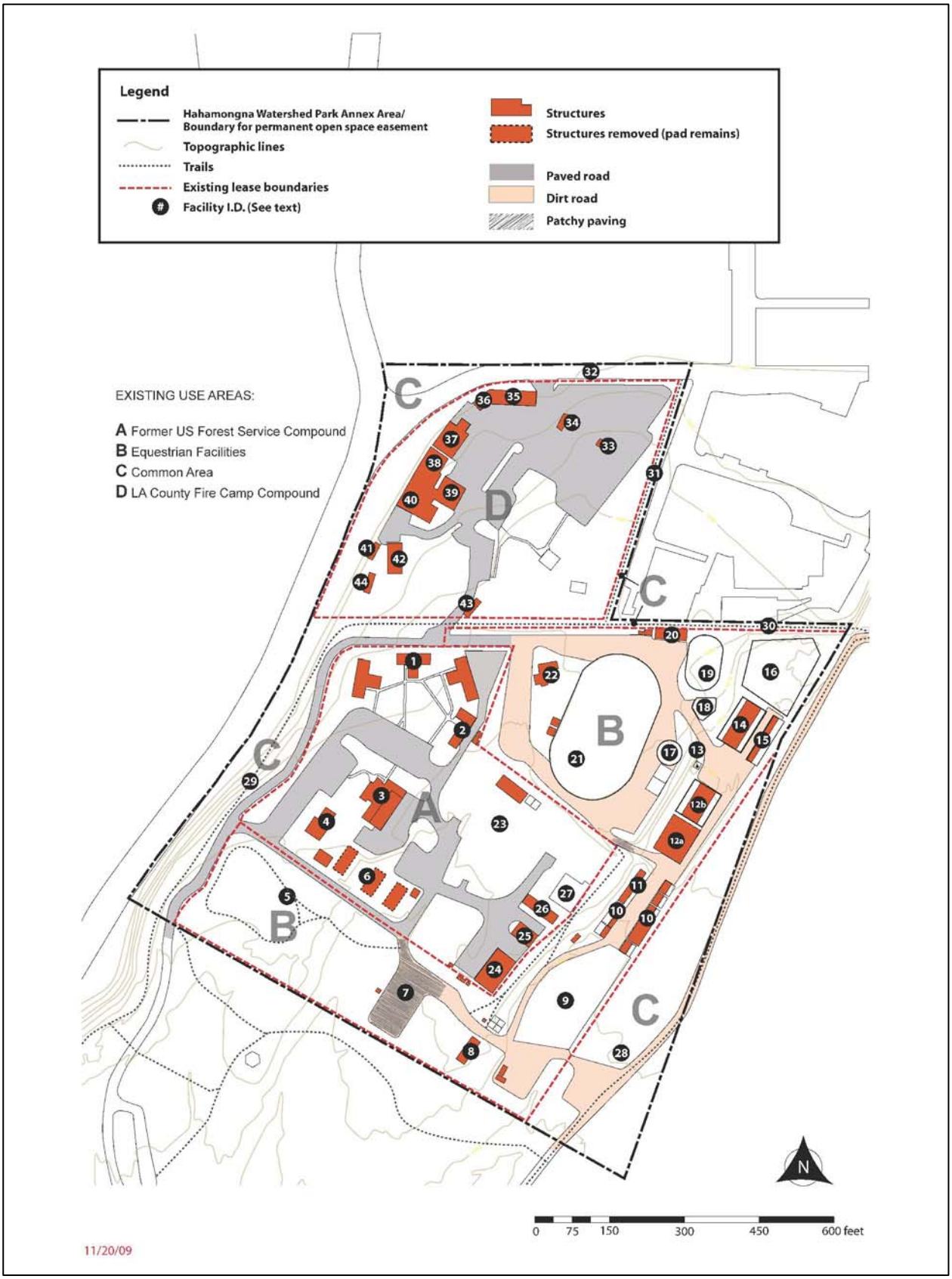


Exhibit 2.3 Key

A. The Former U.S. Forest Service Oak Grove Compound

1. Barracks (3 barracks building total)
2. Mess Hall
3. Administration Building
4. Residence
6. Terraced pads (3)
23. Storage Yard Area
24. Pre-fabricated Metal Buildings with Covered Metal Shed Roof
25. Pre-fabricated Metal Storage Building
26. Pre-fabricated Metal Nursery Building
27. Plant Nursery Growing Beds

B. The Equestrian Area

5. Oak Woodland
7. Parking and access
8. Mobile Home
9. Horse Corrals
10. Lower Horse Stables
11. Tack, Feed & Hay Barn
12. (a) Lower Horse Boarding Barn
12. (b) Middle Horse Boarding Barn
13. Wash Rack
14. Main Upper Horse Boarding Barn
15. Upper Barn East
16. Jumping Arena
17. Round Pen
18. Sun Pen
19. Oval Teaching Arena
20. Barn
21. Main Arena
22. Main Clubhouse

C. Common Areas

28. Eastern Common Area
29. Western Common Area
30. Northern Trail
31. JPL Connector Trail
32. JPL Road Easement

D. Los Angeles County Fire Camp 2 Compound

33. Heliport electrical supply
34. Open equipment garage
35. Enclosed garages with for stalls for reserve vehicles & exercise equipment room
36. Crew day room
37. Garage with open front, plus storage rooms and tool room
38. Classroom for 50 people (max)
39. Offices, dorm, locker rooms & restroom
40. Crew dorm, locker room, restrooms, office and classroom (25 max)
41. Kitchen freezer building
42. Kitchen, pantry, dining hall & restroom
43. Mobile offices, crew sleeping rooms, restrooms & laundry
44. Mobile offices

2.2.2 LAND USE DESIGNATIONS

ZONING

The Hahamongna Watershed Park, including the Annex area, is almost exclusively zoned "OS (Open Space)". The only exceptions are two parcels, one within the Annex and the other outside of the Annex but within HWP, zoned as PD-16 (Jet Propulsion Laboratory Planned Development) district. The parcel outside of the Annex is leased to JPL for use as a 214-space surface parking lot for JPL employees that is only accessible from within the JPL Campus. The PD-16 zoned lot that is within the Annex, can only be used for uses that are permitted or conditionally permitted in the OS (Open Space) zoning district.

GENERAL PLAN LAND USE

The entire Hahamongna Watershed Park area, including the Annex site, is designated open space by the City of Pasadena's General Plan. "Open Space" is defined by the Pasadena General Plan as follows: "This category is for a variety of active and passive public recreational facilities and for City-owned open space facilities. This includes natural open spaces and areas which have been designated as environmentally and ecologically significant. This category also applies to land which is publicly owned, though in some instances public access may be restricted. Most importantly, this designation only applies to lands owned by the City."

EASEMENTS

An easement was established as a condition of the sale of the property to the City in 2005. This permanent Open Space Easement exists over the entire 29.48-acre Annex area and mandates that the property be used solely for open space, or park and recreational purposes.

In addition, JPL maintains a 0.74-acre easement at the northernmost edge of the Annex site for their vehicular access and sewer line, which extend from Oak Grove Drive to the South Gate entry of the JPL campus.

2.2.3 TOPOGRAPHY AND DRAINAGE

The Hahamongna Annex site lies atop the western banks of the Devil's Gate Dam in the Upper Arroyo Seco, which is near the base of the San Gabriel Mountains. The site generally slopes from northwest to southeast, with elevations onsite ranging from 1,100 to 1,045 feet above mean sea level (msl).

Exhibit 2.4 depicts the site's drainage patterns and features. The site generally drains from northwest to southeast, toward the Arroyo Seco. However, due to the improvements onsite, localized stormwater flows in various directions, before ultimately draining to the southeast. Stormwater onsite begins primarily as sheet flow, which collects and forms concentrated surface flows in a variety of locations onsite. In certain locations, stormwater is diverted and/or collected by both formal and informal improvements. The drainage improvements/features onsite include the following:

- Storm Drain No. 1: This refers to the JPL roadway easement storm drain and is located along the eastern border of the County Fire Camp 2 area.

- Storm Drain No. 2: This storm drain collects grey water from the kitchen at the County Fire Camp and outflows onto the hiking trail north of the equestrian area.

- Storm Drain No. 3: This storm drain collects concentrated surface flows from JPL via an inlet along the hiking trail south of JPL, then flows to the east where it exits at outfall no. 14 (referenced in the original HWP master plan) and then empties into the basin.

- Storm Drain No. 4: This storm drain originates along north Oak Grove Drive, traverses the slope in the park, then crosses under the park road and exits into the southwest corner of the oak woodland where it collects with the storm water from a small storm drain under the entry driveway into the Annex.

- Storm Drain No. 5: This storm drain is an open box, concrete lined ditch between the two access routes leading to the horse boarding area, in the lower terrace of the Annex site, that serves as a primary storm drain collector for the area. This drain is 2 ft. wide and 1 ft. deep and is at the base of a slope and immediately adjacent to the horse washing rack. The mucking out of sediment is a regular occurrence during wet winter months when muddy surface flows empty into this storm drain system. This channel carries storm water (often very sediment laden) to a concrete lined ditch under the southerly access route to the boarding area where it then empties on the dirt road that serves as the main lower access road and that doubles as a drainage channel.

For more information, see the discussion of the project's potential Hydrology and Water Quality impacts in Section 3 of this Initial Study.

2.2.4 SURROUNDING LAND USES

The approximately 30-acre Hahamongna Annex site is roughly "L" shaped and is surrounded by:

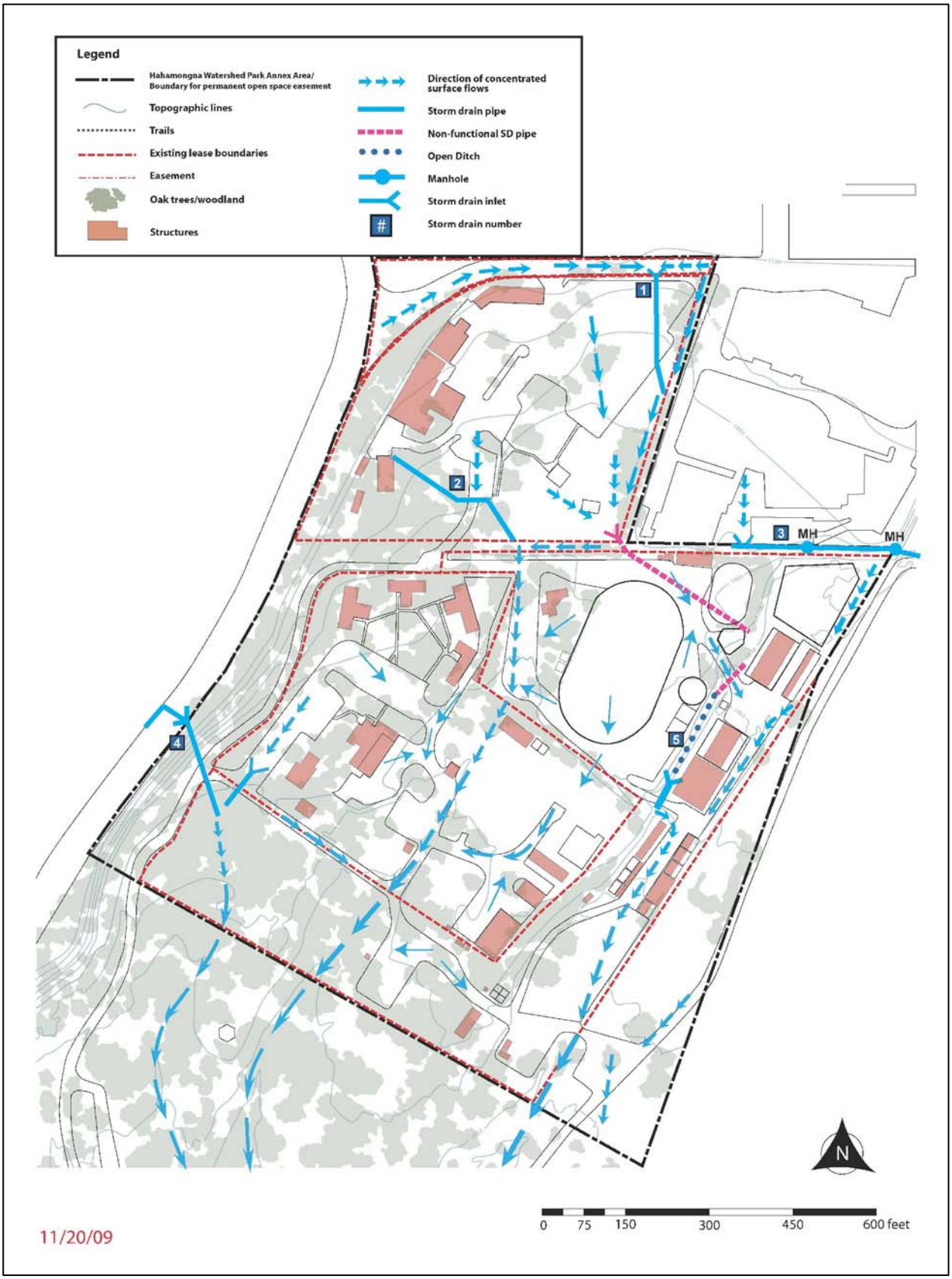
- JPL to the north,

- The Oak Grove area of HWP to the south,

- La Cañada High School across Oak Grove Drive to the west, and

- Devils Gate Reservoir to the east.

Exhibit 2.4 Existing Site Drainage



2.3 PROJECT OBJECTIVES

The City of Pasadena has expressed the Vision Statement and Goals and Objectives below for the Hahamongna Annex site.

2.3.1 VISION STATEMENT

As a unique, centralized part of the Hahamongna Watershed Park (park) and the Arroyo Seco Watershed, the Annex site will be a focal point for visitors to the park and the greater Arroyo Seco area, functioning as both a local and regional hub for education and passive recreation that is compatible with natural resource protection and enhancement. The Annex will also provide a gateway to the broader network of open spaces and trails that connect the Angeles National Forest, La Cañada Flintridge, Altadena, the central and lower Arroyo of Pasadena, and South Pasadena.

As a model for demonstrating the integration of context-sensitive facilities within a natural setting by applying sustainable design and management practices, the Annex will emphasize protection of the site's unique oak and willow habitat, indoor and outdoor education, and continued passive recreation for the public. Key facilities will include an equestrian facility, multipurpose interpretive center; and native plant nursery. As a public facility, the Annex will be sustained through partnerships and financing.

2.3.2 GOALS AND OBJECTIVES

GOAL 1: PRESERVE, RESTORE, AND ENHANCE THE NATIVE HABITATS

Objectives:

- Develop a habitat restoration plan for Hahamongna Watershed Park.
- Protect and enhance the Hahamongna Watershed Park wildlife corridor linkages to the upper watershed and the downstream reaches of the Arroyo Seco.
- Restore, enhance, and reestablish the historical native plant communities of the Arroyo Seco.
- Protect and enhance the oak woodland on the south end of the HWP Annex site.
- Locate new facilities in developed or disturbed areas so as to minimize impact to established habitats.
- Limit exterior lighting for security, safety, and operational purposes to lessen the impact on nocturnal wildlife.
- Preserve and protect the nighttime environment and dark skies through minimal, quality outdoor lighting
- Relocate existing overhead power and communications lines to restore the natural environment and provide adequate, safe maintenance access.

- Develop on-site native plant nursery facilities at the Annex to facilitate restoration and enhancement of the HWP and greater Arroyo.

GOAL 2: THE DEVIL'S GATE FLOOD CONTROL BASIN WILL BE MANAGED TO PROVIDE PROTECTION TO THE DEVELOPED AND NATURAL DOWNSTREAM AREAS.

Objectives:

- Develop a grading plan that allows habitat restoration and recreational activities to co-exist with flood management and water conservation.
- Protect the streams and wetlands in the HWP Annex area as part of improved watershed management.
- Integrate storm water best management practices (BMPs) into the HWP Annex site.
- Maximize ground water recharge within the HWP Annex site that is compatible with the site's uses.

GOAL 3: CONSERVE AND PROTECT THE WATER RESOURCES OF THE ARROYO SECO.

Objectives:

- Maximize groundwater recharge to minimize the amount of water purchased from outside sources.
- Develop a grading plan that allows habitat restoration and recreational activities to coexist with flood management and water conservation.

GOAL 4: PROVIDE DIVERSE RECREATION OPPORTUNITIES FOR THE PASADENA COMMUNITY.

Objectives:

- Provide passive recreation and both indoor and outdoor educational activities at the Annex as part of a balanced range of recreation activities in HWP.
- Evaluate, and to the extent feasible and appropriate, adapt and enhance the former USDA Forest Service facilities.
- Provide an interpretive center at the Annex.
- Develop a grading plan that allows habitat restoration and recreational activities to co-exist with flood management and water conservation.
- Maintain and enhance current recreation uses within the Annex area, including equestrian uses, youth programs consistent with a natural park, and trail uses.

- Deliver education and passive recreation programs in the Annex through partnerships with public and private entities.

GOAL 5: ENRICH AND PROMOTE THE UNIQUE HISTORY AND CULTURE OF HAHAMONGNA WATERSHED PARK.

Objectives:

- Develop HWP as a "living laboratory" for local schools and environmental education programs.
- Integrate sustainable and green design and management practices to the Annex site that are compatible with a natural park setting and that will facilitate learning and connections to the natural environment for the public.
- Preserve and encourage Native American use of HWP as a cultural resource.
- Explore the possibilities of a joint partnership with the U.S. Forest Service and Native Americans in developing an interpretive center and native-plant nursery at HWP.
- Develop design guidelines to ensure aesthetic compatibility and quality construction for any improvements made in HWP.
- Develop passive viewing areas with unique vantage points.
- Create programs that inform and educate the public about the natural processes, the history and the culture of the site.
- Underground or relocate the existing above-ground electrical transmission lines.

GOAL 6: PROVIDE A SAFE AND SECURE PARK.

Objectives:

- Develop guidelines and delegate agency responsibilities for recreation, flood management, and water conservation liabilities.
- Retain and enhance, as needed, the recently reestablished Park Ranger Program to ensure compliance with municipal laws, codes, and regulations. Secure entrances and perimeter of HWP.
- Minimize the use of fencing for security purposes at the Annex site to prevent impacts to trail access and wildlife movement.
- Any security measures and operations at the Annex site should be low impact and include options such as mounted patrols.

GOAL 7: PROVIDE ADEQUATE CIRCULATION, ACCESS AND PARKING

Objectives:

- Provide public transportation and nonmotorized access to HWP.
- Provide adequate parking throughout the park for all proposed recreation activities and facilities.
- Minimize environmental impacts from parking in the HWP Annex site.
- Maintain and restore the trail links to the Central Arroyo, the surrounding neighborhoods, and the Angeles National Forest.
- Provide for safe multiple trail uses
- Ensure connectivity through the HWP Annex and to local and regional trail networks.
- Comply with ADA (Americans with Disabilities Act) standards for a "natural park."
- Develop a signage system that provides clear directional information and informs park visitors without being intrusive.
- Improve and enhance regional trail connections.

2.4 PROJECT CHARACTERISTICS

The proposal consists of amending the Hahamongna Watershed Park Master Plan (HWP Master Plan or HMP) to incorporate the proposed HMP Addendum, which would establish a vision for the Hahamongna Annex site. If approved, the HMP Addendum would become a component of the HWP Master Plan.

The HMP Addendum designates the Hahamongna Annex site for six main uses: (1) an environmental education center with conference facility, (2) a public equestrian facility, (3) natural open space, (4) park offices, maintenance facilities, and infrastructure, (5) passive recreational facilities, and (6) the Los Angeles County Fire Camp 2 (to remain as existing). These proposed uses are summarized below along with corresponding improvements identified in the proposed HMP Addendum.

The proposed HMP Addendum plan is shown as Exhibit 2.5 and the proposed Amended HWP Master Plan, which includes the proposed HMP Addendum, is shown as Exhibit 2.6.

Exhibit 2.5 Proposed HMP Addendum Plan

Exhibit 2.6 Proposed Amended Hahamongna Watershed Park Master Plan

2.4.1 ENVIRONMENTAL EDUCATION CENTER WITH CONFERENCE FACILITIES

The proposed environmental education center would adaptively reuse the majority of the abandoned U.S. Forest Service facility. The proposed center would comprise 5.63 acres and would include a conference space, office and exhibit space, indoor classrooms, outdoor classrooms/gathering areas, a dining hall, and a xeriscape demonstration garden. No new structures are proposed, the facility's main office building would be expanded from 5,572-ft^2 to approximately 7,500 ft^2. All other existing structures would be repaired/improved as described in Table 2.2.

Table 2.2
Environmental Education Center Components and Other Site Buildings

Component	Square Footage/ Construction	Intended Use	Potential Improvements
IMPROVEMENTS TO EXISTING STRUCTURES/SPACES			
Main Office Building and Equipment Garage	5,572-ft^2 concrete block structure to be expanded to approximately 7,500 ft^2	▪ Main environmental education building ▪ Information center ▪ Conference center, with maximum attendance of 188 ▪ Interpretive/exhibit area ▪ Trail hub ▪ Office space ▪ Storage	▪ Expand to approximately 7,500 ft^2 ▪ Repair and remodel to LEED standards ▪ Replace roof ▪ Various interior repairs/improvements ▪ Various exterior architectural treatment repairs/improvements ▪ Various cosmetic landscape/hardscape repairs/improvements ▪ Widen the existing handicap ramp and restripe the accessible parking area ▪ Re-grade the west front area next to the building to redirect water away from the foundation ▪ Repair adjacent parking lots, repair large cracks, apply slurry seal and re-stripe
Classroom No. 1	1,886-ft^2 concrete block structure	▪ Environmental classrooms ▪ Meeting Space ▪ Office Space	▪ Repair and remodel to LEED standards ▪ Replace roof ▪ Various interior repairs/improvements ▪ Various exterior architectural treatment repairs/improvements ▪ Various cosmetic landscape/hardscape repairs/improvements ▪ Replace drinking fountain ▪ Re-grade the areas on both the east and west faces to direct water away from the foundation ▪ Cut the existing curb and stoop in front and install a handicap ramp
Classroom No. 2	1,886-ft^2 concrete block structure	▪ Environmental classrooms ▪ Meeting Space ▪ Office Space	▪ Repair and remodel to LEED standards ▪ Replace roof ▪ Various interior repairs/improvements ▪ Various exterior architectural treatment repairs/improvements ▪ Various cosmetic landscape/hardscape repairs/improvements ▪ Replace drinking fountain ▪ Re-grade the perimeter of the building to

Table 2.2 Environmental Education Center Components and Other Site Buildings			
Component	Square Footage/ Construction	Intended Use	Potential Improvements
			direct water away from the foundation. ▪ Improve handicap access
Classroom No. 3	2,196-ft² concrete block structure	▪ Environmental classrooms ▪ Meeting Space ▪ Office Space	▪ Remove 275-ft² addition, restore building to a total of 1,920 ft² ▪ Repair and remodel to LEED standards ▪ Replace roof ▪ Various interior repairs/improvements ▪ Various exterior architectural treatment repairs/improvements ▪ Various cosmetic landscape/hardscape repairs/improvements ▪ Replace drinking fountain ▪ Re-grade the perimeter of the building to direct water away from the foundation. ▪ Improve handicap access ▪ Remove the dead tree on the west side of the building
Mess Hall	1,673-ft² concrete block structure	▪ Indoor and outdoor dining ▪ Food preparation ▪ Meeting Space ▪ Office Space	▪ Repair and remodel to LEED standards ▪ Replace roof ▪ Various interior repairs/improvements ▪ Various exterior architectural treatment repairs/improvements ▪ Various cosmetic landscape/hardscape repairs/improvements ▪ Replace drinking fountain ▪ Re-grade the perimeter of the building to direct water away from the foundation. ▪ Improve handicap access ▪ Repair the cracks in the driveway and apply a slurry seal ▪ Remove the dead tree on the south side of the building and trim all the trees and shrubs
Storage Building	168-ft² concrete block structure	▪ Storage	▪ Various exterior architectural treatment repairs/improvements ▪ Trim trees, shrubs and vegetation around the building
Metal Storage Buildings (2) with Covered Equipment Garage between	Two 970-ft² prefabricated metal structures; 1,746-ft² space between the two structures is covered by a metal shed roof forming the garage	▪ Maintenance ▪ Storage ▪ Community volunteer work center	▪ Various interior repairs/improvements
Metal Maintenance and Storage	1,228-ft² prefabricated	▪ Maintenance ▪ Storage	▪ Various interior repairs/improvements

Table 2.2 Environmental Education Center Components and Other Site Buildings			
Component	Square Footage/ Construction	Intended Use	Potential Improvements
Building	metal structure		
Plant Lab & Greenhouse	1,181-ft² prefabricated metal structure	▪ Science plant laboratory	▪ Repair roof ▪ Various interior repairs/improvements
Plant Nursery Growing Beds	4,800 ft²	▪ Outdoor classroom ▪ Plant growing area ▪ Demonstration space	▪ Minor repairs, as needed
Residence with detached Garage	1,388-ft² residence and detached 2-car garage; both concrete block structures	▪ Residence for site manager ▪ Office Space	▪ Repair and remodel to LEED standards ▪ Various exterior architectural treatment repairs/improvements ▪ Various cosmetic landscape/hardscape repairs/improvements ▪ Re-grade the front lawn to direct water away from the foundation ▪ Remove 1 dead tree in front lawn and 2 dead redwood trees from backyard ▪ Replace approximately 175 feet of fencing in backyard ▪ Level and repair the asphalt parking area in the back
Metal Shed	Approximately 2,400-ft² prefabricated metal structure	▪ To be removed	▪ To be dismantled and removed
PROPOSED NEW SPACES			
Xeriscape Demonstration Garden	5,300-ft² outdoor garden space	▪ Residential demonstration garden	▪ Construct new demonstration garden ▪ Comply with LEED standard for outdoor spaces including water conserving garden and BMP's for storm water
Outdoor Classroom (south)	4,500-ft² outdoor space	▪ Outdoor garden/gathering and classroom space	▪ Construct new outdoor education space ▪ Comply with LEED standard for outdoor spaces including water conserving garden and BMP's for storm water
Outdoor Classroom (north)	11,400-ft² outdoor space	▪ Outdoor garden/gathering space ▪ Walkway access to various classrooms and mess hall	▪ Construct new outdoor education space ▪ Comply with LEED standard for outdoor spaces including water conserving garden and BMP's for storm water
Outdoor Demonstration Area and Gardens	14,200-ft² outdoor garden space	▪ Outdoor demonstration garden for community	▪ Construct new demonstration garden area and gardens ▪ Comply with LEED standard for outdoor spaces including water conserving garden and BMP's for storm water
Volunteer Yard	7,000-ft² outdoor	▪ Outdoor classroom	▪ Designate yard area

Table 2.2 Environmental Education Center Components and Other Site Buildings			
Component	Square Footage/ Construction	Intended Use	Potential Improvements
Area	space	space ▪ Gathering area for volunteers	
Restroom	~600 ft²	▪ Restroom facilities for patrons of both the Environmental Education Center and Equestrian Facility	▪ Construct new restroom structure

2.4.2 EQUESTRIAN FACILITY

The proposed HMP Addendum includes renovating and improving the site's existing equestrian facilities for use by the public and the continuation of existing equestrian activities by keeping the current tenants on the site. In total, the proposed Annex Plan includes 6.74 acres of equestrian facilities, which include improved and publicly accessible equestrian performance/practice areas, various horse boarding facilities, a remodeled and expanded or rebuilt main clubhouse that will be available for rent by the public, a relocated foreman residence, horse trailer parking/staging, and various ancillary facilities. In addition, the proposed Master Plan Amendment calls for a centralized horse waste collection area and structural and non-structural best management practices (BMPs) to improve water quality from the equestrian area. The components of the proposed equestrian facility are detailed in the table below.

Table 2.3 Equestrian Facility Components			
Component	Facilities	Intended Use	Potential Improvements
Arenas and Related Facilities	3.05 acres, which include: ▪ Main arena(s) ▪ Smaller oval arena ▪ Jumping arena ▪ Pens (2) ▪ Viewing stands for up to 150 spectators	▪ Public/publicly accessible equestrian facilities ▪ Operated by the City (anticipated to have an agreement with a vendor to manage the facility) ▪ Events with a capacity to serve a max. of 200 people ▪ General staging area & trail hub for visiting equestrians and trail users	▪ Provide main riding arena(s) with improved seating/viewing stands (this includes maintaining the existing main arena or reconfiguring the main arena as dictated by demand and/or to meet industry standards) ▪ ▪ Install a bikeway (maximum of 10' in width) along northern boundary ▪ Modify/repair/relocate existing Oval Teaching Arena as may be required to implement other Master Plan components ▪ Remove or relocate the barn (#20) (displaced by proposed bikeway) within the public equestrian area ▪ Formalize Upper Barn (#15) (max. of 8 stalls) ▪ Secure property to ensure public and animal safety

Table 2.3 Equestrian Facility Components			
Component	Facilities	Intended Use	Potential Improvements
			▪ Post rules for the public to adhere to ▪ Relocate/improve horse trailer parking area (relocated to boarding area) ▪ Install horse tie rails/hitching posts and visiting horse station, as needed ▪ Install water meter to improve water pressure and water efficiency ▪ No impervious pavement is proposed within the Riding Arena Area
Clubhouse	1,610-ft^2	▪ Public meetings and gatherings (clubhouse and adjacent gardens) ▪ Public recreational facility for use by permit/reservation ▪ Office and storage facility for operator ▪ Trail hub	▪ Extensive rehabilitation of existing structure or replacement ▪ Maintain gardens outside of the Clubhouse; possible garden renovation to make them water conserving ▪ Install kiosk in the gathering area outside the clubhouse and provide park information, rules, hours, and important maps ▪ Improve picnic area within the garden area (install BBQ's, drinking fountain, tables, etc.)
Equestrian Boarding Area	88,065-ft^2 area containing: ▪ multiple barns ▪ horse stalls ▪ corrals ▪ tack room ▪ wash rack ▪ hay and feed storage ▪ horse waste disposal area	▪ Horse boarding for riding club(s) and the local community ▪ Maintain lease with riding club(s) (anticipated RBR)	▪ Reorganize horse boarding area ▪ Increase corral capacity from 36 to a maximum of 70[1] ▪ Install ancillary facilities, including hay, feed and tack storage, and perimeter security fencing as needed ▪ Rehabilitate or replace tack barn ▪ Improvements for drainage and erosion control purposes ▪ Install 28 parking spaces for autos/horse trailers along the eastern edge of the horse boarding area ▪ Improve/realign primary access route; all weather surface with bioswale along eastern edge
Adaptive/ Therapeutic	36,795-ft^2 area containing:	▪ Programs to support the use of equestrian riding for physically	▪ Relocate MACH1/create new equestrian facility for adaptive

[1] The increase from 36 corrals to up to 70 corrals is not a firm recommendation of the Master Plan Amendment, but is rather an allowance for the tenant if such a capacity is desired. The actual number of corrals would be dictated through lease agreements for the horse boarding area.

Table 2.3 Equestrian Facility Components			
Component	Facilities	Intended Use	Potential Improvements
Equestrian Uses	▪ teaching arena ▪ permeable parking area ▪ office space with restroom ▪ horse boarding and ancillary facilities ▪ picnic area ▪ spectator viewing area	challenged youth ▪ Operating agreement with appropriate organization (anticipated MACH1)	equestrian uses ▪ Grading/site preparation ▪ Install new arena ▪ Install permeable parking area ▪ Install office ▪ Install horse stalls for a maximum of 8 horses ▪ Install ancillary facilities, including hay/feed storage, tack barn, equipment shed, horse wash rack, spectator viewing area, and securing fencing as needed ▪ Install access route with bioswale along edge
Youth Camp and Equestrian Operations Area	70,818-ft^2 area containing: ▪ mobile home unit ▪ various equestrian facilities ▪ staging area ▪ team building play area ▪ internal equestrian trail	▪ Equestrian camps, with a maximum of 72 horses ▪ Equestrian lessons/guided rides ▪ Staging area ▪ Operating agreement with appropriate organization (anticipated TSC)	▪ Relocate (or replace) existing mobile home; connect mobile home to sanitary sewer and abandon existing septic system ▪ Improve/realign primary access route; all weather surface with bioswale along eastern edge ▪ Install ancillary facilities such as hay, feed and tack storage, and perimeter security fencing as needed ▪ Reorganize horse boarding area ▪ Improvements for drainage and erosion control purposes

2.4.3 NATURAL OPEN SPACE AND HABITAT RESTORATION

The proposed Master Plan Amendment designates the site for a variety of natural open spaces along the site's southern, northern, western, and eastern boundaries. The existing and proposed natural open spaces on the Annex site include:

- An oak woodland in the southern portion of the site, which would be restored through implementation of the proposed Master Plan Amendment;
- A meadow area within the oak woodland, which would be created through implementation of the proposed Master Plan Amendment; and
- A sycamore woodland on the eastern border of the site, which would be restored through implementation of the proposed Master Plan Amendment.

The proposed Master Plan Amendment includes a variety of efforts to restore and improve the natural open space onsite. To improve connectivity and enhance habitat value, the proposed Master Plan Amendment designates the fence along the site's southern border for removal. The former

team building play area/van parking area would be restored to a meadow within the oak woodland. To protect the habitat value of this area while allowing human use, formal access routes and a permeable parking surface would be provided to limit destruction of vegetation. Likewise, to limit the impact footprint, the proposed Master Plan Amendment calls for management and restriction of equestrian activity in the oak woodland area, which has historically degraded this area. Finally, all of the natural drainage areas onsite would be preserved and enhanced.

In addition to preserving and enhancing natural open space, the proposed Master Plan Addendum recommends removing all trees that are not native to California from the Annex site, and replacing such trees with native species where appropriate. Recognizing the benefits that mature trees provide, removal/replacement of non-native trees would occur in phases to maintain an appropriate tree canopy on the Annex site. Removing non-native trees over time would improve the habitat value of the site and surroundings by: (1) providing additional food sources and natural habitat for wildlife; (2) increasing the availability of resources, including water and sunlight, for native plants; and (3) reducing the spreading of non-natives into the surrounding areas by reducing the seed bank.

2.4.4 PARK OFFICES, MAINTENANCE FACILITIES, AND INFRASTRUCTURE

The proposed HMP Addendum designates a variety of existing structures on the Annex site for park office and maintenance facilities. In accordance with the proposed Annex Plan, the existing U.S. Forest Service residence would be used as a Park Ranger's office, the existing pre-fabricated metal sheds would be used for maintenance/storage and a community volunteer work center, and the pre-fabricated metal nursery would be used as a plant lab and growing beds. See Table 2.2 above for additional details and improvements.

Infrastructure improvements for the proposed HMP Addendum include a variety of access and parking improvements. Exhibits 2.7 and 2.8 depict the site's proposed circulation and parking. In general, the current footprint for vehicular access in and around the site would be retained, with some minor modifications. The site's proposed main entry would continue to be from Oak Grove Drive with vehicle circulation extending through the proposed education and community meeting center and connecting to several points in the equestrian area. The park's main access road would terminate at the entrance to the existing parking lot adjacent to the equestrian clubhouse (Lot F1 on Exhibit 2.8). This parking lot is large enough to allow emergency vehicles to turn around and exit the area. The proposed main park road and all secondary routes would be all-weather roads constructed of pervious material.

Parking would be provided in eight separate lots, which are labeled Lots A-E, F1, F2, and G. The existing parking areas would be largely maintained/reused, including the three existing paved lots at the U.S. Forest Service Station. Lots A, B, and C would be located among the environmental education buildings; Lots E, D, and G among the equipment storage, and volunteer work center; and Lots F1 and F2 within the public equestrian facility, with Lot F2 providing a 28-space horse trailer/staging area. Existing impervious asphalt would be removed in all parking areas and interior roads and replaced with a sustainable and pervious surface.

In addition to vehicle access, the following alternative transportation improvements are considered:

- Establish a bus drop-off and parking area (in addition to two such areas that are currently included in the existing HMP);

- Construct a universally-accessible connection to the future public transit stop on Oak Grove Drive;

- Restore the existing north/south trail between the Equestrian Center and JPL;

- Restore the existing pedestrian/equestrian trail from the transit stop at the park entrance at Oak Grove Drive and Foothill Blvd;

- Restore the public trail connections from the Annex site to the park area to the south and remove fence to permit public access directly into the Annex; and

Establishing a bikeway (maximum 10' in width) and potentially a separate pedestrian/equestrian trail (maximum 6' in width) along the northern edge of the site. The proposed bicycle route would be constructed with the appropriate all weather surface for use by road bikes. BMPs and sustainable design options would be utilized in the design of the 800-ft section of the bike route to ensure maximum safety for the recreational users. The proposed equestrian/pedestrian trail would be constructed of natural material (i.e., dirt trail). The HMP Addendum also specifies that a new perimeter/security fence would be installed by the City to secure the Equestrian Center and the Horse Boarding Area.

In addition to circulation and parking improvements, the proposed HMP Addendum includes a variety of drainage and water quality improvements. These improvements include:

- Regrading portions of the lower terrace (horse boarding areas) for an improved and sustainable drainage plan that will mitigate for the frequent drainage problems within this area and improve conditions;

- Reducing the volume of stormwater runoff by incorporating vegetated swales, permeable paving, and other design features that allow ground water percolation, improve water quality, and reduce and pretreat runoff;

- Installing natural stormwater drainage courses within and along the edge of the Equestrian Center and at critical areas within the Annex site, with the goal of eliminating and treating any runoff from this area before it enters the Arroyo Seco;

- Establishing drainage courses that will prevent the use of paths and access routes as the primary corridors for concentrating drainage flows;

- Incorporating design features, such as vegetated swales and permeable surfaces in parking lots, to reduce the volume of runoff, allow ground water percolation, and improve water quality/pretreat runoff before entering storm drains or the Arroyo Seco;

- Stabilizing erosion-prone areas with vegetation;

- Repairing the non-functioning storm drain inlet associated with storm drain No. 1 (as shown on Exhibit 2.4) and installing the associated necessary drainage pipe to connect this system to storm drain No. 3.;

- Repairing the problem at storm drain No. 2 (as shown on Exhibit 2.4) by connecting the disposal of the Fire Camp 2 grey water to the existing sewer or develop a pilot project to resolve the problem naturally and in accordance with city codes;

- Installing a new storm drain drop inlet structure for storm drain No. 3;

- Abandoning storm drain No. 5 (the open box, concrete lined ditch in the horse boarding area and shown on Exhibit 2.4) in connection with installing bioswales and natural drainage features; and

- Establishing a centralized and communal horse waste disposal area that will replace the multiple existing horse waste containers, some of which are currently failing.

In addition to these physical improvements, the HMP Addendum includes developing an outreach program and educational material for various user groups to teach about the impacts of animal wastes on Arroyo water quality and to assist with animal waste hot spots on trails prior to and during the storm season.

2.4.5 PASSIVE RECREATIONAL FACILITIES

The proposed HMP Addendum includes a variety of multi-use trails and several picnic/gathering areas. A bikeway and potentially a pedestrian/equestrian trail would traverse the site, from the end of the park road at the entrance to the Equestrian Center and parallel the northern border of the Equestrian Center to the central Hahamongna basin. The bikeway would provide all-weather access for bicycles. Likewise, if undertaken, the trail would prove all-weather access for hikers and equestrians. The all-weather access for bicycles would take riders along the eastern edge of Hahamongna Watershed Park to the existing JPL bridge, temporarily and until the future northerly bridge crossing project is built to complete this northern missing link in the park's perimeter trail system. An additional trail would be located along the site's eastern boundary and would connect to trails northeast and south of the site at either end. Finally, the proposed Annex Plan includes various other internal connection trails.

In addition to trail improvements, the proposed HMP Addendum includes several picnic/gathering areas. One such area would be located near the proposed education center. An additional group gathering area with picnicking facilities would be provided outside of the clubhouse in the Equestrian Center. Destined as a trail hub and equestrian staging area, a kiosk with local and regional trail maps and Arroyo Seco park information would be installed at this recreational resting spot. Finally, while not intended for general recreation purposes, the proposed Annex Plan Amendment identifies a group gathering area with picnic tables in the southeast corner of the site for volunteer workers.

2.4.6 LOS ANGELES COUNTY FIRE CAMP 2

The Los Angeles County Fire Camp 2 comprises six acres in the northwest portion of the site. No improvements or modifications are proposed for this facility, which would remain as a countywide training, conference, and community outreach facility. A lease between the County and the former owner of the property, MWD, was enacted just prior to the sale of the property to the City, for a term of 50 years.

2.4.7 SUMMARY OF GRADING ACTIVITIES

The grading involved in implementing the proposed Master Plan Addendum generally consists of site preparation for parking lot development/improvements, vehicular access improvements, trail realignment/improvements, building expansion/construction, and grading to correct localized drainage problems. Most of the involved grading would be shallow, fine-grading operations. No landform changes are proposed. Grading is intended to - and anticipated to - largely balance onsite. There is the potential need to import no more than 50-150 cubic yards of fill, which cannot be precisely determined until detailed engineering of the proposed improvements is conducted. Additional details about anticipated grading activities are described below.

It is important to note that grading, in and of itself, is not an environmental impact. Grading can cause environmental impacts, such as landform changes, air pollution during construction, noise during construction, encroachment into habitat, and damage of buried cultural resources. Such related potential environmental impacts are analyzed in the respective subsections of Chapter 3 of this Initial Study.

BIKEWAY AND TRAILS

Grading would be required to install the proposed bikeway. Along a portion of the northern property boundary, cut would be required to align the proposed bikeway as far north as possible to minimize disruption/displacement of equestrian facilities. The cut material would be used to repair existing wear and tear, prepare the surface of the proposed bikeway, and to soften the gradient from the upper level (west) to the lower level (east).

GRADING TO IMPROVE DRAINAGE

There are several spots in the proposed equestrian area with localized drainage problems. These drainage problems are caused by historical and ongoing storm water erosion and the placement of equestrian facilities in low spots. In the lower horse boarding area (#'s 9-15 on Figure 2.3), existing storm water flows are conveyed on the existing north-south access route, which has become eroded over time. In addition, storm water in this area often flows through certain horse boarding facilities, causing temporary ponding of water in corrals. To correct this problem, the proposed HMP Addendum recommends realigning the access route to the east side of the equestrian structures and redirecting storm water flows to the east side of the realigned access route, where appropriate best management practices (BMPs) can be installed to control drainage (e.g., small retention basis, boulders to decrease flow rates, etc.). Redirecting storm water flows would require grading to make minor adjustments in the surface gradient. In addition, fill would be required to level portions of the existing north-south access road that have become eroded. The City's intent is to fill this area with excess material from within the Annex site. However, import of fill may be needed if adequate material is not available onsite.

Grading is also proposed in the adaptive/therapeutic equestrian area (#23 on Figure 2.3) to improve drainage and to prepare the site for new equestrian facilities. The proposed HMP Addendum includes improving an existing drainage corridor along the western edge of this area with BMPs (e.g., small retention basins, boulders to decrease flow rates, etc.). Grading to make minor adjustments of the surface gradient would be required to direct storm flows towards this drainage corridor.

Finally, a nominal amount of grading would be required to repair existing storm drain inlets/structures, and trenching would be required to install drainage pipes that connect to such facilities. Specifically, trenching would be required to install a new drain pipe to connect the storm drain No. 1 system to storm drain No. 3.

BUILDING PADS

Grading would be required to prepare building pads for new and expanded structures. Such site preparation would be required for the proposed horse wrangler mobile home, barns, equestrian clubhouse, educational building expansions, and other structures as needed.

PARKING LOTS AND ACCESS ROADS

Grading would be required to prepare pads for new parking lots. In addition, in areas where asphalt is proposed to be removed, grading would be necessary to resurface the areas with natural material.

Exhibit 2.7 Proposed Mobility Plan

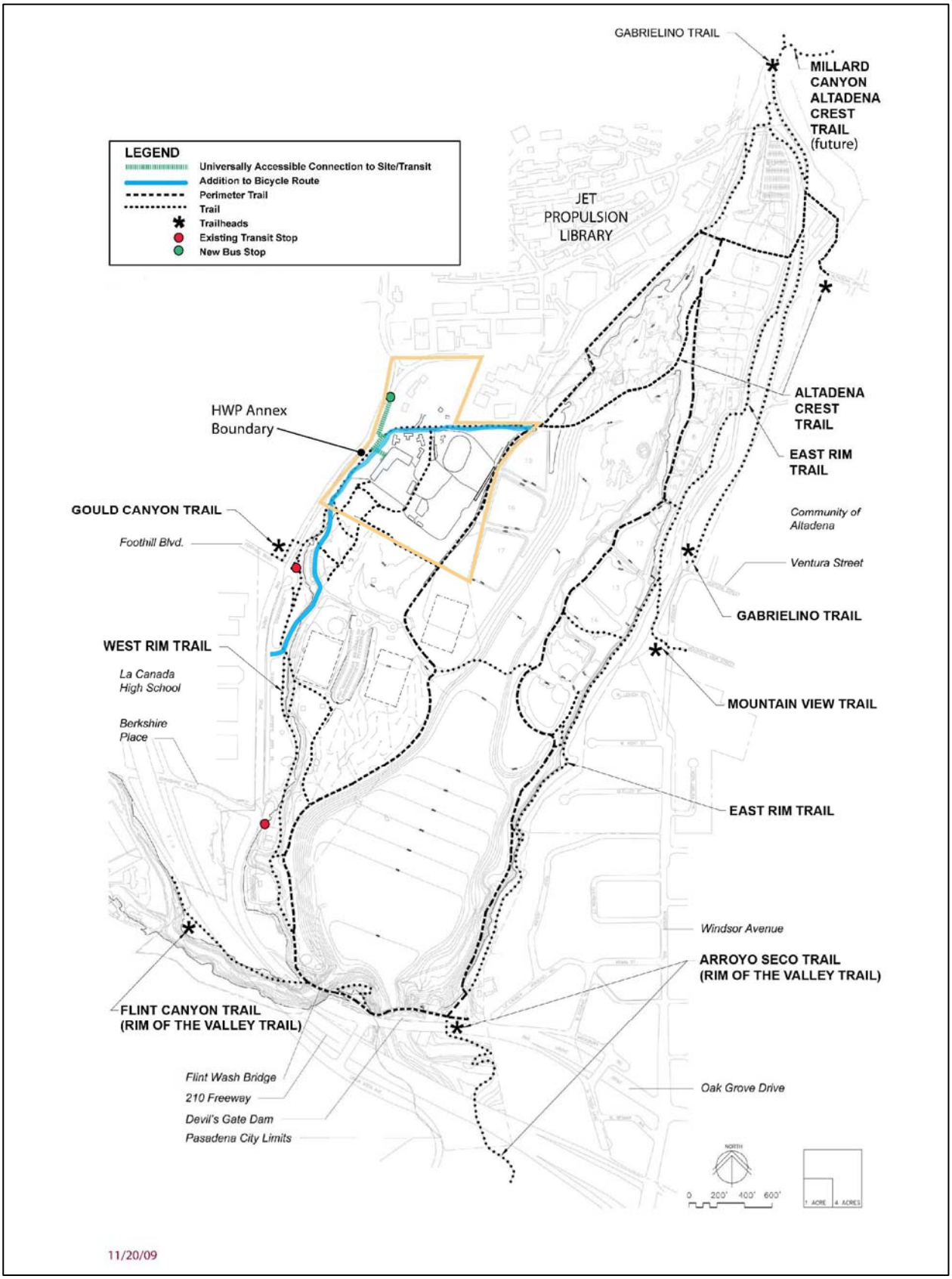
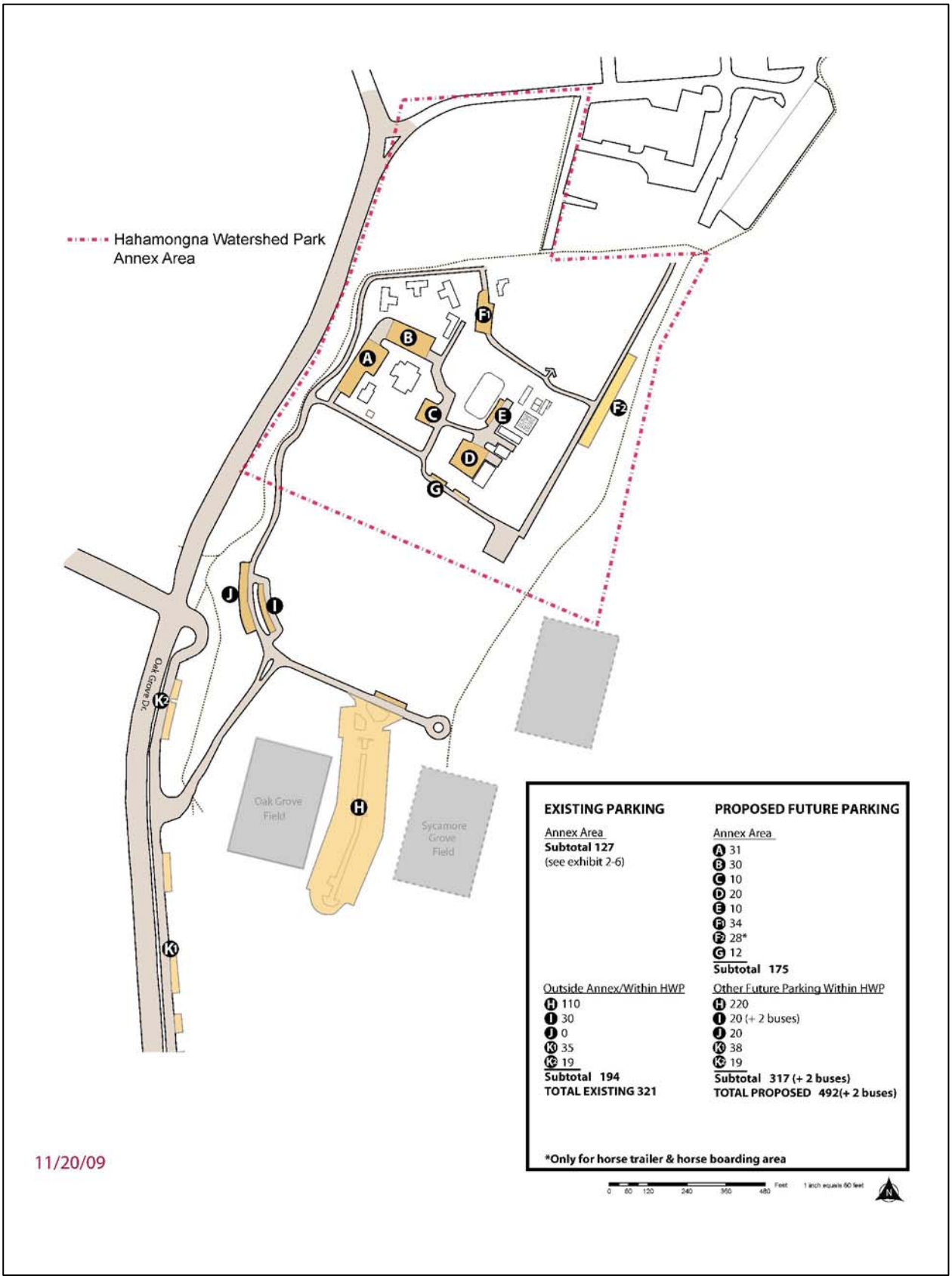


Exhibit 2.8 Proposed Parking Plan



2.5 INTENDED USES OF THE INITIAL STUDY

This Initial Study, along with the Arroyo Seco Master EIR, will be used by the City of Pasadena, the lead agency, when deciding whether to grant the following discretionary approvals:

- Adoption of an Amendment to the Hahamongna Watershed Park Master Plan;
- Undertaking improvement projects specified in and/or to implement the Amended Hahamongna Watershed Park Master Plan;
- Entering into Lease Agreements, Operating Agreements, and/or Management Agreements for all or portions of the proposed facilities;
- Granting subsequent permits/agreements with various entities for use of the proposed facilities; and
- Conditional Use Permit(s) or any other land use-related entitlements required to implement the improvements identified in the Amended Hahamongna Watershed Park Master Plan.

No discretionary approvals from public agencies other than the City of Pasadena are known or expected to be required for the project.

3.0 ENVIRONMENTAL CHECKLIST FORM

This section of the Initial Study uses the City's Environmental Checklist Form and the framework identified in CEQA Guidelines § 15162 to:

1. Determine whether the proposed HMP Addendum activities may cause any additional significant effects which were not analyzed in the Arroyo Seco Master EIR pursuant to Public Resources Code (PRC) § 21157.1 and State CEQA Guidelines § 15177;

2. Determine whether the "Limitations on the Use of a Master EIR" have been exceeded pursuant to PRC § 21157.6 and State CEQA Guidelines § 15179; and

3. Identify the mitigation measures from the Master EIR that are applicable to the HMP Addendum.

In conducting this analysis, the potential environmental impacts of the proposed HMP Addendum project are classified into one of the following categories:

- *New Significant Environmental Effect Caused by a Change in the Project or Circumstances*: This category consists of significant environmental impacts that would result from the proposed action that were not identified in the existing Master EIR. (See CEQA Guidelines §§ 15162(a)(1) and 15162(a)(2).)

- *Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances*: This category consists of significant environmental impacts identified in the existing Master EIR that would be substantially worsened as a result of the proposed action. Impacts in this category would require subsequent CEQA documentation. (See CEQA Guidelines §§ 15162(a)(1) and 15162(a)(2).)

- *New or Substantially More Severe Significant Impacts Shown by New Information*: This category consists of new environmental impacts (i.e., impacts not identified in the existing Master EIR) or substantially more severe significant environmental impacts caused by new information that has arisen since the Master EIR was certified. Impacts in this category would require subsequent CEQA documentation. (See CEQA Guidelines § 15162(a)(3).)

- *Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent*: This category consists of significant environmental impacts identified in the Master EIR that were considered unavoidable at the time the EIR was certified that are now avoidable through mitigation measures or project alternatives; but the project proponent declines to adopt such measures or alternatives. Impacts in this category would require subsequent CEQA documentation. (See CEQA Guidelines § 15162(a)(3).)

- *No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR*: This category consists of potentially significant environmental impacts that would result from the proposed action that are similar to those identified in the existing Master EIR and can either be reduced to a less than significant level by applying a mitigation measure(s) included in the

Master EIR or would cause no additional significant impacts beyond those considered in the Master EIR after a mitigation measure(s) included in the Master EIR is applied. Impacts in this category do not meet the conditions described in Public Resources Code § 21166 and/or CEQA Guidelines § 15162 and, as such, would not require subsequent CEQA documentation.

- *Less than Significant Impact*: This category consists of environmental impacts that would result from the proposed action that the Lead Agency determines are not significant. Impacts in this category do not meet the conditions described in Public Resources Code § 21166 and/or CEQA Guidelines § 15162 and, as such, would not require subsequent CEQA documentation.

- *No Impact/No Additional Impact*: This category consists of environmental impacts that would result from the proposed action that are the same as those identified in the existing Master EIR and environmental topics that would not be affected by the proposed action. Impacts in this category do not meet the conditions described in Public Resources Code § 21166 and/or CEQA Guidelines § 15162 and, as such, would not require subsequent CEQA documentation.

This section of the Initial Study answers each question of the City's Environmental Checklist Form and concludes which of the above categories the resulting impacts fall within, as indicated by a checkbox that corresponds to the following table:

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact
☐	☐	☐	☐	☐	☐	☐

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

3.1 AESTHETICS. Would the project:

a. Have a substantial adverse effect on a scenic vista?

☐	☐	☐	☐	☐	☒	☐

The HWP Addendum site lies at the northern portion of the Arroyo Seco Master Plan (ASMP) area, which offers views of the San Gabriel Mountains and portions of the Arroyo Seco below. The JPL facility north of the Annex site is plainly visible from most locations within the site. However, the Master Plan area contains no designated scenic vistas, and the Annex site itself is visually separated from the Foothill Freeway (I-210) corridor (a recommended Scenic Highway) by the existing portion of Hahamongna Watershed Park and existing oak and sycamore tree canopy. No site improvements are proposed that would rise above the tree canopy, affecting vistas. Moreover, the Arroyo Seco Master EIR determined that the HWP element of the Master Plan would not cause significant effects on scenic vistas (Arroyo Seco Master EIR, p. 3.1-9). Accordingly, because the proposed Addendum plans no structural or landform changes to the site that would change this determination, it would cause no additional significant impact on the environment.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

☐	☐	☐	☐	☒	☐	☐

The HMP Addendum calls for rehabilitating and reusing a number of the existing structures on the project site and, potentially, replacing the Equestrian Center Clubhouse. As discussed in the Arroyo Seco Master EIR, such renovations could damage scenic resources present on site, particularly during project construction. However, Measures Aesthetic-1 and 2 from the Master EIR require strict control of staging areas, cleanliness and screening of construction areas, and Master EIR Measures Aesthetic-3, 4, 6 and 7 limit exterior light and glare effects, and require adherence to the Arroyo Seco Design Guidelines (ASDG, adopted 2003), (Arroyo Seco Master EIR, p. 3.1-14). The ASDG calls for specific building and landscape design, intended to minimize visual resource impacts. With these mitigation measures and guidelines in place, any remaining impacts to scenic resources would be less than significant.

The proposed HMP Addendum would not damage scenic resources visible from a California-designated scenic highway. The only designated state scenic highway in the City of Pasadena is the Angeles Crest Highway (State Highway 2), located north of Arroyo Seco Canyon in the extreme northwest portion of the City, approximately 1.6 miles from the site. The Annex site may be within the Angeles Crest Highway viewshed; however, this view is already affected by the industrial JPL buildings and La Cañada High School. The proposed project would not add new buildings or change the landscape significantly; rather, the project includes extensive site rehabilitation and

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

revegetation conforming to the Arroyo Seco Master Plan. Consequently, the HMP Addendum would result in no additional impacts to views from a designated state scenic highway.

Additionally, as mentioned in 3.1(a) above, the HMP Addendum would not result in adverse changes to scenic resources visible from the Foothill Freeway, which is identified as "Eligible" in the State Scenic Highway Program. The Foothill Freeway was also identified in the 1987 Environmental Quality Element of the City's General Plan as a Los Angeles County Recommended Scenic Highway. However, the Arroyo Seco Master EIR determined that buildout of the HWP element of the Master Plan would have no long-term effects on the views afforded by this corridor (Arroyo Seco Master EIR, p. 3.1-9). The HMP Addendum does not involve any new structures or changes in the landscape that would be substantially visible from the freeway; moreover, as noted previously, the rehabilitated structures would be required to conform to the ASDG as well. Therefore, the project will have no additional significant impact on the environment.

c. Substantially degrade the existing visual character or quality of the site and its surroundings?

☐	☐	☐	☐	☒	☐	☐

The proposed HMP Addendum would not degrade the existing visual character of the site and its surroundings; rather, the project would improve the site's aesthetics by restoring existing buildings and renovating the existing landscape with additional native plant material in harmony with the natural setting. Moreover, as mentioned above, all retrofitted or new construction would be required to conform to the ASDG and Arroyo Seco Master EIR Mitigation Measures 6 and 7, which would reduce any remaining visual quality impacts to less than significant levels.

However, short-term visual impacts may occur during project construction (equipment staging, construction debris piles, new material stockpiling, excess construction material litter, etc). The Arroyo Seco Master EIR anticipated such impacts and requires Mitigation Measures 1 and 2 as described below, which would reduce construction impacts to less than significant levels. Accordingly, the project will also have no additional significant impact on the environment.

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

☐	☐	☐	☐	☒	☐	☐

The project will not create a new, substantial light or glare source, because two express project objectives call for limiting exterior lighting to lessen impacts on nocturnal wildlife and to preserve "dark skies" (Goal 1). Additionally, all new lighting would be required to conform to the ASDG as well as to specific Arroyo Seco Master EIR mitigation measures (Aesthetic 3 and 4), which would reduce light and glare impacts to less than significant levels. Accordingly, the project will have no additional significant impact on the environment.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

Applicable Mitigation Measures from the Arroyo Seco Master Plan Master EIR:

☒ Measure Aesthetic – 1: The City of Pasadena shall require construction contractors to strictly control the staging of construction equipment and the cleanliness of construction equipment stored or driven beyond the limits of the construction work area as a means of minimizing temporal degradation of the visual character of surrounding areas and the associated impact to aesthetics. Prior to completion of final plans and specifications, the City of Pasadena shall review the plans and specifications to ensure that all construction vehicles and equipment shall be parked in designated staging areas when not in use. Vehicles shall be kept clean and free of mud and dust before leaving the project site (see Measure Air-5). Completion of this measure shall be monitored and enforced by the City of Pasadena Department of Public Works.

☒ Measure Aesthetic – 2: The City of Pasadena shall require construction contractors to provide temporary screening from the present public view site, around construction work areas, for all improvements that grading and temporary closures for trails during construction and enhancement, as a means of minimizing the temporal effects to the visual character of the surrounding area and the associated impacts to aesthetics.

☒ Measure Aesthetic – 3: The City of Pasadena shall specify the lighting type and placement within the Arroyo Seco to ensure that the effects of security lighting are limited to designated recreational use areas and appurtenant facilities as a means of minimizing night lighting and the associated impacts to aesthetics. Prior to completion of final plans and specifications, the City of Pasadena shall review the plans and specifications to ensure that all light fixtures will use glare-control visors, arc tube suppression caps, and will use a photometric design that maintains 70 percent of the light intensity in the lower half of the light beam. Completion of this measure shall be monitored and enforced by the City of Pasadena Department of Public Works.

☒ Measure Aesthetic – 4: The City of Pasadena shall specify the placement and angle of lighting fixtures within the Arroyo Seco to ensure the protection of night views from public vantage points and areas designated for use as native habitats. Specifically, the City shall require that light be designed to conform essentially to the existing condition, as a means of minimizing increases in night lighting and the associated impacts to aesthetics. Prior to completion of final plans and specifications, the city of Pasadena shall review the plans and specifications to ensure that appropriate light fixture aiming angles are maintained, light standards shall not be more than 70 feet in height. Completion of this measure shall be monitored and enforced by the City of Pasadena Department of Public Works.

☒ Measure Aesthetic – 6: The City of Pasadena shall require that all new structures in the Upper Arroyo Seco and the Lower Arroyo Seco to be finished in unobtrusive colors, as a

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

means of minimizing potential effects to the visual characteristics of the site and surrounding area in the Upper Arroyo Seco and Lower Arroyo Seco, and the associated impacts to aesthetics. Prior to completion of final plans and specifications, the City of Pasadena shall review the plans and specifications to ensure that new structures are painted with earth tone colors to ensure that the buildings blend in with their surroundings to the extent possible. Completion of this measure shall be monitored and enforced by the City of Pasadena Planning and Permitting Department.

☒ Measure Aesthetic – 7: The City of Pasadena shall require that all structured [*sic*] improvements recommended as components to the Arroyo Seco Master Plan conform to the Design Guideline [*sic*] established pursuant to the plan, as a means of minimizing potential effects to the visual characteristics of the site and surrounding areas and the associated impacts to aesthetics. Prior to completion of final plans and specifications for all structural improvements, the City shall submit the plans and specifications to the Design Commission for a determination as to their conformance with adopted Design Guidelines. Completion of this measure shall be monitored and enforced by the City of Pasadena Planning and Permitting Department.

3.2 AGRICULTURAL RESOURCES.

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

☐	☐	☐	☐	☐	☐	☒

The Initial Study prepared for the Arroyo Seco Master EIR found all potential impacts to agricultural resources to be not significant and were therefore not analyzed in the Master EIR. The zoning for the Annex site does not contain any farmland designations, nor are any of the surrounding uses zoned or engaged in agricultural activities, nor does the site contain any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, the project will have no additional impact on the environment.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?

☐	☐	☐	☐	☐	☐	☒

There are no Williamson Act contracts within the City of Pasadena. Therefore, the project will have no additional impact on the environment.

c. *Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?*

☐	☐	☐	☐	☐	☐	☒

The zoning for the Annex site does not contain any farmland designations, nor are any of the surrounding uses zoned or engaged in agricultural activities, nor does the site contain any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, the project will have no additional impact on the environment.

3.3 AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a. Conflict with or obstruct implementation of the applicable air quality plan?

☐	☐	☐	☐	☐	☐	☒

The City of Pasadena is within the South Coast Air Basin (SCAB), which is bounded by the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east, and the Pacific Ocean to the south and west. The air quality in the SCAB is managed by the South Coast Air Quality Management District (SCAQMD).

The SCAB has a history of recorded air quality violations and is an area where both state and federal ambient air quality standards are exceeded. Because of the violations of the California Ambient Air Quality Standards (CAAQS), the California Clean Air Act requires triennial preparation of an Air Quality Management Plan (AQMP). The AQMP analyzes air quality on a regional level and identifies region-wide attenuation methods to achieve the air quality standards. These region-wide attenuation methods include regulations for stationary-source polluters; facilitation of new transportation technologies, such as low-emission vehicles; and capital improvements, such as park-and-ride facilities and public transit improvements.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

The most recently adopted plan is the 2007 AQMP. This plan is the South Coast Air Basin's portion of the State Implementation Plan (SIP) and is designed to achieve the 5 percent annual reduction goal of the California Clean Air Act.

The AQMP accommodates population growth and transportation projections based on the predictions made by the Southern California Association of Governments (SCAG). Thus, projects that are consistent with employment and population forecasts are consistent with the AQMP.

In addition to the region-wide AQMP, the City of Pasadena participates in a sub-regional air quality plan – the West San Gabriel Valley Air Quality Plan. This plan, prepared in 1992, is intended to be a guide for the 16 participating cities, and identifies methods of improving air quality while accommodating expected growth.

The proposed HMP Addendum is consistent with the Zoning and General Plan Land Use designations for the site. As a result, the HMP Addendum is consistent with the growth expectations for the region. The proposed HMP Addendum is, therefore, consistent with the AQMP and the West San Gabriel Valley Air Quality Plan, and would have no associated impacts.

b. Violate any air quality standard or contribute to an existing or projected air quality violation? AND/OR

☐	☐	☐	☐	☒	☐	☐

c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

☐	☐	☐	☐	☒	☐	☐

Due to its geographical location and the prevailing offshore daytime winds, Pasadena receives smog from downtown Los Angeles and other areas in the Los Angeles basin. The prevailing winds, from the southwest, carry smog from wide areas of Los Angeles and adjacent cities, to the San Fernando Valley and to Pasadena in the San Gabriel Valley where it is trapped against the foothills. For these reasons the potential for adverse air quality in Pasadena is high.

The City of Pasadena is within the South Coast Air Basin (SCAB), which is an airshed that regularly exceeds ambient air quality standards (AAQS) – i.e., a non-attainment area. The SCAB is designated a non-attainment area for respirable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), and ozone (O_3). The SCAB is currently designated an attainment area for the remaining criteria pollutants, which include carbon monoxide (CO), nitrogen oxides (NOx), and sulfur dioxide (SO_2).

Implementation of the proposed HMP Addendum would generate air pollutants from both construction and operation activities. Construction of the improvements identified in the HMP

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

Addendum would involve minor amounts of demolition, grading, and trenching, as well as building addition/construction and landscaping. These construction activities would generate air pollutants from equipment exhaust and earth disturbance. However, even during the worst day of construction, air pollutant emissions would be less than significant.

On the worst day of construction, it is anticipated that 2-3 pieces of diesel-powered construction equipment would be used, such as a rubber-tired dozer, a loader, and/or a backhoe, and that no more than one acre of land would be disturbed (i.e., graded) simultaneously. The worst day construction tailpipe emissions were calculated for the project based on the emission factors used in the URBEMIS 2007 Model (version 9.2.4) and assuming all three pieces of equipment would be operating simultaneously for the entire 8-hour day. The fugitive dust emissions were then added to the tailpipe emission, assuming that one acre of land would be disturbed on the worst day of construction. The resulting estimated construction emissions are show in Table 3.3.1.

Table 3.3.1
Estimated Construction Emissions (lbs/day)

	ROG	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$
Project Construction Equipment	3.25	26.47	14.57	<0.01	1.41	1.3
Earth Movement Fugitive Dust*	--	--	--	--	10	2.1
Total Construction Emissions	3.25	26.47	14.57	<0.01	10.41	3.4
SCAQMD Regional Thresholds	75	100	550	150	150	55
SCAQMD LSTs	n/a	148	1,540	n/a	12	7
Significant?	No	No	No	No	No	No

Source: Based on emissions factors from the URBEMIS 2007 Model (version 9.2.4)
** Assumes 1-acre of grading occurring onsite on the worst day*

As shown in Table 3.3.1, construction on the Annex site would be well below the SCAQMD's regional significance thresholds and localized significance thresholds – even when considering the most conservative construction scenarios. Therefore, the construction associated with the HMP Addendum would not cause or substantially contribute to an existing or projected air quality violation.

Of note, the Arroyo Seco Master EIR identified significant construction-phase air pollutant emissions that could not be mitigated to a less than significant level. More specifically, during the worst-case day of construction in the entire Arroyo Seco Master Plan area, NOx and PM_{10} emissions were estimated to exceed the SCAQMD regional thresholds of significance after mitigation[1]. As a result, the City adopted a Statement of Overriding Conditions and deemed short-term construction-related impacts "acceptable" (State CEQA Guidelines § 15093(a)). It should be noted that the MEIR's determination that short-term construction-related impacts are significant and unavoidable

[1] See Arroyo Seco Master Plan Master EIR, Table 3.2.5-1, which identifies that, after mitigation, worst-day construction emissions of NOx (107 lbs/day) exceed the SCAQMD threshold of 100 lbs/day; and after mitigation, worst-day construction emissions of PM_{10} (317 lbs/day) exceed the SCAQMD threshold of 150 lbs/day.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

is based upon several projects being constructed simultaneously throughout the entire planning area, many of which involve substantially more intense construction activities than the proposed HMP Addendum. As such, if the HMP Addendum is approved, the worst-case construction air quality impacts identified in the Arroyo Seco Master EIR would remain essentially the same, as the worst day of construction assumed in the MEIR would not become worse if the HMP Addendum is adopted. Measures Air-1 through 11 from the Arroyo Seco Master EIR (see below) would be followed on the Annex site. With the implementation of these measures, the proposed HMP Addendum would cause no additional significant impact on the environment pursuant to CEQA § 21166 related to construction air pollution.

During operation, the HMP Addendum would generate air pollutants from vehicles accessing the site, landscaping equipment exhaust, natural gas combustion, and other area sources. The URBEMIS 2007 Model (version 9.2.4) was used to estimate the air pollutant emissions that would be generated by operation of the facilities on the Annex site. See Table 3.3.2.

Table 3.3.2
Estimated Area and Operational Emissions (lbs/day)

	ROG	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$
Hahamongna Annex Site Area and Operational Emissions	3.97	6.20	46.42	0.05	7.70	1.50
Arroyo Seco Master EIR Operation Emissions*	26	22	203	--	1	--
Total Area and Operational Emissions	29.97	28.20	249.42	0.05	8.7	1.5
SCAQMD Regional Thresholds	55	55	550	150	150	55
Significant?	No	No	No	No	No	No

Source: URBEMIS 2007 Model (version 9.2.4), See model output in Appendix A.
**See Arroyo Seco Master Plan Master EIR Table 3.2.4-3, which does not quantify SO_2 and $PM_{2.5}$ emissions.*

As show in Table 3.3.2, emissions generated on the Annex site would be well below the SCAQMD thresholds of significance. As additionally shown in Table 3.3.2, when the Annex site's emissions are combined with the operational emissions of the entire Arroyo Seco Master Plan area, total (cumulative) emissions would still be well below the SCAQMD's thresholds. Therefore, the HMP Addendum's operational and area emissions would not cause or substantially contribute to an existing or projected air quality violation, and impacts are considered less than significant. It should be further noted that, while the City intends for the facility to be a model for sustainability and green technology, as a conservative estimate, the UBEMIS model assumed a conventional-level of energy assumption would occur onsite.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

Greenhouse Gas (GHG) Emissions

"Greenhouse gases" (so called because of their role in trapping heat near the surface of the earth) emitted by human activity are implicated in global climate change, commonly referred to as "global warming." These greenhouse gases contribute to an increase in the temperature of the earth's atmosphere by transparency to short wavelength visible sunlight, but near opacity to outgoing terrestrial long wavelength heat radiation. The principal greenhouse gases (GHGs) include carbon dioxide (CO_2), methane, and nitrous oxide. Collectively GHGs are measured as carbon dioxide equivalent (CO_2e).

Fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of GHG emissions, accounting for approximately half of GHG emissions globally. Industrial and commercial sources are the second largest contributors of GHG emissions with about one-fourth of total emissions.

California has passed several bills and the Governor has signed at least three executive orders regarding greenhouse gases. GHG statues and executive orders (EO) include Assembly Bill (AB) 32, Senate Bill (SB) 1368, Executive Order (EO) S-03-05, EO S-20-06 and EO S-01-07. AB 32, the California Global Warming Solutions Act of 2006, is one of the most significant pieces of environmental legislation that California has adopted. Most notably AB 32 mandates that by 2020, California's GHG emissions be reduced to 1990 levels.

The SCQAMD has adopted a "Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold". This document establishes a draft GHG Significance Threshold for projects where the SCAQMD is the lead agency. While the SCAQMD is not the lead agency for the proposed project, the SCAQMD's threshold is utilized in this CEQA document as a reference for comparative purposes. The SCAQMD's draft GHG Significance Threshold establishes a 5-tier threshold flowchart, with Tier 3 identifying screening thresholds of 10,000 metric tons per year (MT/yr) of CO_2e for industrial projects and 3,000 MT/yr of CO_2e for commercial and residential projects. If a project exceeds these thresholds, the project should then be evaluated against Tier 4, titled "Performance Standards". While the SCAQMD has not yet identified the performance standards for Tier 4, this tier indicates that the GHG impacts of projects attempting to reduce GHG emissions will likely be considered less than significant.

GHG emissions for implementation of the HMP Addendum were estimated using the URBEMIS2007 model (see Appendix A). The proposed project is estimated to generate 732.13 MT/yr of CO_2 plus an inconsequential about of methane and nitrous oxide. While the SCAQMD has not identified screening thresholds that correspond to the types of land uses included in the HMP Addendum, the Annex site's GHG emissions are well below the lowest (residential and commercial) screening thresholds. In addition, the proposed facility is intended to be a model for sustainability and green technology. As such, the GHG impacts of the HMP Addendum would be considered less than significant pursuant to Tier 4 of the SCQAMD's threshold flowchart.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

Therefore, the proposed HMP Addendum's contribution to global climate change caused by GHG emissions is not considerable.

Applicable Mitigation Measures from the Arroyo Seco Master Plan Master EIR:

☒ Measure Air –1: The City of Pasadena shall require wetting of soils for all grading activities undertaken to implement the specified project components that are expected to affect areas of greater than 1 acre in size as a means of reducing PM_{10} emissions to the maximum extent practicable. Prior to advertising for construction bids for the Upper Arroyo Seco improvements, the Central Arroyo Seco improvements, or the Lower Arroyo Seco improvements, the City of Pasadena Department of Public Works shall ensure that the plans and specifications include the requirement for the construction contractor to ensure that soils are moistened prior to grading and soil moisture content is maintained at a minimum of 12 percent for all grading activities. The construction contractor shall demonstrate compliance with this measure through the submittal of monthly monitoring reports to the City of Pasadena Department of Public Works.

☒ Measure Air –2: The City of Pasadena shall require wetting of soils for all grading activities undertaken to implement the specified project components that are expected to affect areas of greater than 1 acre in size as a means of reducing PM_{10} emissions to the maximum extent practicable. Prior to advertising for construction bids for the Upper Arroyo Seco improvements, the Central Arroyo Seco improvements, or the Lower Arroyo Seco improvements, the City of Pasadena Department of Public Works shall ensure that the plans and specifications include the requirement for the construction contractor to ensure that surfaces undergoing active grading and all other exposed surfaces be watered at least twice a day under calm conditions. Surfaces shall be watered as often as needed on days that are windy (when wind speed is less than 25 miles per hour) or during very dry weather to maintain a surface crust and prevent the release of visible emissions from the construction site. The construction contractor shall demonstrate compliance with this measure through the submittal of monthly monitoring reports to the City of Pasadena Department of Public Works.

☒ Measure Air –3: The City of Pasadena shall require soil treatment to stabilize soils for all exposed cuts or all slopes as a means for reducing PM_{10} to the maximum amount practicable. Prior to advertising for construction bids for the Upper Arroyo Seco improvements, the Central Arroyo Seco improvements, or the Lower Arroyo Seco improvements, the City of Pasadena Department of Public Works shall ensure that the plans and specifications include the requirement for the construction contractor to ensure that any area that would be exposed for extended periods would be treated with a non-toxic soil conditioner to stabilize soil or would be temporarily planted with vegetation.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

☒ Measure Air –4: The City of Pasadena shall require soil treatment to stabilize soils for all exposed cuts or all slopes as a means for reducing PM_{10} to the maximum amount practicable. Prior to advertising for construction bids for the Upper Arroyo Seco improvements, the Central Arroyo Seco improvements, or the Lower Arroyo Seco improvements, the City of Pasadena Department of Public Works shall ensure that the plans and specifications include the requirement for the construction contractor to ensure that non-toxic chemical stabilizers are applied within five working days of ceasing grading or water or dust suppressants are applied in sufficient quantity to maintain a stabilized surface. The construction contractor shall demonstrate compliance with this measure through the submittal of monthly monitoring reports to the City of Pasadena Department of Public Works.

☒ Measure Air –5: The City of Pasadena shall require construction contractors to wash equipment that would travel on public roads prior to leaving construction sites where equipment would be exposed to mud as a means of reducing PM_{10} emissions to the maximum extent possible. Prior to advertising for construction bids for the Upper Arroyo Seco improvements, the Central Arroyo Seco improvements, or the Lower Arroyo Seco improvements, the City of Pasadena Department of Public Works shall ensure that the plans and specifications include the requirement for the construction contractor to ensure that mud covered tires and undercarriages of trucks are washed prior to leaving construction sites. The construction contractor shall demonstrate compliance with this measure through the submittal of monthly monitoring reports to the City of Pasadena Department of Public Works.

☒ Measure Air –6: The City of Pasadena shall require construction contractors to maintain adjacent public roads free of mud and debris from the construction site on a daily basis, as a means of reducing PM_{10} emissions to the maximum extent practicable. Prior to advertising for construction bids for the Upper Arroyo Seco improvements, the Central Arroyo Seco improvements, or the Lower Arroyo Seco improvements, the City of Pasadena Department of Public Works shall ensure that the plans and specifications include the requirement for the construction contractor to provide for street sweeping, as needed, on adjacent roadways to remove dirt dropped by construction vehicles or mud that would otherwise be carried off by trucks departing project sites. The construction contractor shall demonstrate compliance with this measure through the submittal of monthly monitoring reports to the City of Pasadena Department of Public Works.

☒ Measure Air –7: The City of Pasadena shall require that construction contractors cover all trucks hauling dirt on public roads as a means of reducing PM_{10} emissions to the maximum extent practicable. Prior to advertising for construction bids for the Upper Arroyo Seco improvements, the Central Arroyo Seco improvements, or the Lower Arroyo Seco improvements, the City of Pasadena Department of Public Works shall ensure that the plans and specifications include the requirement for the construction contractor to ensure that loads of dirt are securely covered with a tight fitting tarp on any truck leaving or entering the

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

construction sites to bring fill dirt to the site or to dispose of excavated soil. The construction contractor shall demonstrate compliance with this measure through the submittal of monthly monitoring reports to the City of Pasadena Department of Public Works.

☒ Measure Air –8: The City of Pasadena shall require that grading activities cease during periods when winds exceed 25 miles per hour, as a means of reducing PM_{10} emissions to the maximum extent practicable. Prior to advertising for construction bids for the Upper Arroyo Seco improvements, the Central Arroyo Seco improvements, or the Lower Arroyo Seco improvements, the City of Pasadena Department of Public Works shall ensure that the plans and specifications include the requirement for the construction contractor to ensure that grading is ceased during periods when winds exceed 25 miles per hour. The construction contractor shall demonstrate compliance with this measure through the submittal of monthly monitoring reports to the City of Pasadena Department of Public Works.

☒ Measure Air –9: The City of Pasadena shall require that the construction contractor ensure that all cut and fill slopes are permanently protected from erosion as a means of reducing PM_{10} emissions to the maximum extent practicable. Prior to advertising for construction bids for the Upper Arroyo Seco improvements, the Central Arroyo Seco improvements, or the Lower Arroyo Seco improvements, the City of Pasadena Department of Public Works shall ensure that the plans and specifications include the requirement for the construction contractor to provide for permanent sealing of all graded areas at the earliest practicable time after soil disturbance. The construction contractor shall demonstrate compliance with this measure through the submittal of monthly monitoring reports to the City of Pasadena Department of Public Works.

☒ Measure Air –10: The City of Pasadena shall require the construction contractor to ensure that all construction equipment is maintained in peak working order, as a means of reducing NOx emissions to the maximum extent practicable. Prior to advertising for construction bids for the Upper Arroyo Seco improvements, the Central Arroyo Seco improvements, or the Lower Arroyo Seco improvements, the City of Pasadena Department of Public Works shall ensure that the plans and specifications include the requirement for the construction contractor to ensure that construction equipment is maintained in peak operating condition so as to reduce operation emissions. Specifications shall require the construction contractor to certify monthly to the City of Pasadena Department of Public Works that construction equipment is being maintained in peak operating condition.

☒ Measure Air –11: The City of Pasadena shall require of the construction contractor that all construction equipment not expected to be used for a period in excess of 15 minutes be turned off as a means of reducing NOx emissions to the maximum extent practicable. Prior to advertising for construction bids for the Upper Arroyo Seco improvements, the Central Arroyo Seco improvements, or the Lower Arroyo Seco improvements, the City of Pasadena

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

Department of Public Works shall ensure that the plans and specifications require the construction contractor to shut off engines when not expected to be in use in excess of 15 minutes.

d. Expose sensitive receptors to substantial pollutant concentrations?

☐	☐	☐	☐	☐	☒	☐

Sensitive receptors in the vicinity of the Annex site include students at La Cañada High School and active recreation participants in the Hahamongna Watershed Park. While these sensitive receptors exist in the vicinity, the HMP Addendum would not generate substantial pollutant concentrations. As discussed above in section 3.3(b) and (c), neither the construction nor operational air pollutants generated onsite would exceed the SCAQMD thresholds of significance. Notably, construction on the Annex site would not generate air pollutants in excess of the LSTs, which are screening tools for unhealthful air pollutant concentrations. Therefore, the proposed HMP Addendum would not significantly impact any sensitive receptors.

e. Create objectionable odors affecting a substantial number of people?

☐	☐	☐	☐	☐	☒	☐

The proposed HMP Addendum would not establish any new odor-generating activities on the Annex site. However, the HMP Addendum would allow for the continued equestrian use of the site, which generates odors from equine waste. The equestrian facilities onsite, however, are well removed from any sensitive odor receptors. In addition, the proposed HMP Addendum would reorganize the equestrian uses onsite and would establish a centralized horse waste area, which could reduce the existing odor impacts. Therefore, the proposed HMP Addendum would not cause any significant odor impacts.

3.4 BIOLOGICAL RESOURCES. Would the project:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

☐	☐	☐	☐	☒	☐	☐

The Arroyo Seco Master EIR evaluated biological resources for the Hahamongna Watershed Park environs and determined that no substantial adverse effects could occur to federal or state-listed rare, threatened or endangered plant or animal species, because none were observed in the project study area (Arroyo Seco Master EIR, pp. 3.3-6 – 3.3-37). One California "sensitive" plant species,

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

the Plummer's Mariposa Lily, was identified adjacent to the project site, at an unspecified location along the east side of the JPL entry road (Id., p. 3.3-16). At the time of the Master EIR preparation, the proposed HWP improvements were not anticipated to affect this population (Id., p. 3.3-37). The HWP Addendum construction and operation activities, however, might affect this population adversely, because the site is adjacent to a known location. Also, as further discussed below, suitable habitat exists for other listed species, including amphibians such as the Arroyo toad, California red-legged frog, mountain yellow-legged frog, western spadefoot toad, as well as several sensitive bird species (Id., pp. 3.3-33, 34). To reduce any foreseeable impacts to listed or sensitive species to less than significant levels, the Master EIR included Mitigation Measure Biological-1, requiring directed site surveys and protection of any listed or sensitive species discovered as a result. Accordingly, the project will have no additional significant impact on the environment.

b. *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

☐	☐	☐	☐	☒	☐	☐

The Arroyo Seco Master EIR indicated that significant impacts could result to the habitat of both federal and state-listed plant and animal species, because potentially-suitable habitat of several such species exists on the HWP site and environs, including Coast Live Oak Woodland, Southern Willow Scrub, Mule Fat Scrub, Riversidean Sage (and Alluvial Sage) Scrub, and Coastal Sage Scrub (Master EIR, pp. 3.3-8 – 3.3-10). The only native habitat on the Hahamongna Annex site, however, is Coast Live Oak Woodland, which is primarily located along the southern boundary of the site (see Exhibit 3.1). This Oak Woodland has been largely disturbed by decades of equestrian uses in the vicinity. The remainder of the Annex site is largely improved with the U.S. Forest Service Station and equestrian facilities.

The proposed construction on the Annex site would primarily renovate existing developed areas and is not proposed to intrude upon existing native vegetation. Additionally, the proposed HMP Addendum would enhance habitat value onsite by:

- Revegetating the oak woodland onsite and restricting equestrian uses in this area;
- Establishing a meadow area within the oak woodland;
- Establishing/restoring a sycamore woodland on the eastern border of the site; and
- Renovation of landscaped areas with native plants.

Exhibit 3.1 Plant Communities within the Annex

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

Further, the proposed environmental education programs and plant nursery would increase awareness of habitat value among the HWP's user groups. However, short-term construction activities and ongoing recreation activities have the potential to result in adverse impacts to habitat on and adjacent to the site. Master EIR Mitigation Measures Biological-1, Biological-2, and Biological-3 require directed surveys and habitat protection, such as fencing, monitoring, and wetland replacement, as appropriate. With these measures already in place, and applied to the Annex area, remaining impacts would be less than significant. Accordingly, the project will have no additional significant impact on the environment.

c. Have a substantial adverse effect of federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

☐	☐	☐	☐	☒	☐	☐

The Arroyo Seco Master EIR indicated that significant adverse impacts could result from HWP construction and operation, including filling, dredging, bridge construction, and/or stream channel modification (Arroyo Seco Master EIR, p. 3.3-37). While the proposed HMP Addendum area does not involve construction activities within the riparian areas of the HWP, and consequently does not involve direct modification of federally-protected wetlands, construction activities and facility operations could foreseeably affect water runoff and quality. These effects are discussed in greater detail under Hydrology and Water Quality, below. To reduce any unforeseen impacts to nearby wetlands, Master EIR Mitigation Measures Biological 1 and Biological 2 require creating buffers, and avoiding or replacing affected wetlands should specific construction plans necessitate wetland encroachment. Accordingly, remaining impacts would be less than significant, and no additional significant impact on the environment would occur.

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

☐	☐	☐	☐	☐	☐	☒

The Arroyo Seco Master EIR indicated that no significant interference with fish or wildlife species movement or nursery sites would occur as a result of the HWP element of the Arroyo Seco Master Plan, largely because the project proposed low-intensity uses and significant habitat restoration. The HMP Addendum would renovate "developed area" and "landscaped vegetation" similar to those areas described in the Master Plan (Arroyo Seco Master EIR, p. 3.3-10) and would preserve the on-site oak woodland. Notably, the HWP Master Plan Addendum, Goal 1, "Preserve, Restore and Enhance the Native Habitats," sets forth nine specific objectives that would support wildlife movement and nursery sites; these objectives are further clarified in section 2.4.3, Natural Open Space, which calls for oak and sycamore woodland restoration, fence removal and protection from

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

equestrian uses. With these objectives in place, any impacts to wildlife movement or reproduction would be less than significant, and no additional impact on the environment would occur.

In August and September of 2009, a wildfire known as the "Station Fire" burned 161,189 acres[2] of land in and around the Angeles National Forest. This fire burned within 4,000 feet (0.75 miles) of the Annex site. Due to the resulting loss of vegetation in the nearby Angeles National Forest, interested parties have expressed concerns that the proposed HMP Addendum could impact wildlife that may be seeking temporary refuge on the Annex site. Specifically, commenters expressed concern for the removal of trees that could support displaced wildlife.

As discussed below in response to question (e), the proposed HMP Addendum recommends the phased removal/replacement of non-native trees on the Annex site for habitat restoration, removing individual trees over time to allow for certain proposed improvements, and removing unhealthy, diseased, or hazardous trees.

While the proposed HMP Addendum would result in the removal and replacement of trees, the following factors reduce the potential for impacts on wildlife displaced by the Station Fire:

1. Most of the burned area consisted of chaparral shrubs. As noted in the U.S. Forest Service's *Wildlife and Fish Technical Specialist Report*[3] for the Station Fire, "Dominant vegetation types in the burned area consist primarily of chaparral communities, including lower montane mixed chaparral, ceanothus chaparral, scrub oak chaparral, chamise chaparral, upper montane mixed chaparral, desert transition chaparral, and soft scrub mixed chaparral." The Forest Service further specified that 113,866 (72%) of the 158,443 acres of habitat that were burned was chaparral/shrub.[4] Thus, most of the wildlife displaced are shrub dependent and would not be seeking refuge in trees.

2. Due to the distance from the fire to the project site (approximately 4,000 feet), there are numerous trees between the Annex site and the burn zone that provide equivalent or superior resources for wildlife than the trees on the Annex site.

3. Some trees survived the fire and, thus, provide resources for wildlife.

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[2] Source: United States Department of Agriculture-Forest Service, *Station Fire Burned-Area Report (Reference FHS 2509.13)*, September 23, 2009. Report contained in Appendix E of this document. See also: http://www.fs.fed.us/r5/angeles/station/map.shtml.

[3] Source: United States Department of Agriculture-Forest Service, *Wildlife and Fish Technical Specialist's Report, Burned Area Emergency Rehabilitation for the Station Fire*, September 2009. Report contained in Appendix E of this document. See also: http://www.fs.fed.us/r5/angeles/station/map.shtml.

[4] Source: United States Department of Agriculture-Forest Service, *Botany Technical Specialist's Report, Burned Area Emergency Rehabilitation for the Station Fire*, September 2009. Report contained in Appendix E of this document. See also: http://www.fs.fed.us/r5/angeles/station/map.shtml.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

4. Many of the chaparral species in the burn area are species that have adapted to periodic wildfires. Thus, these species, along with the chaparral community, are expected to recover rapidly.

5. The proposed HMP Addendum is a planning document that recommends future improvements on the Annex site, which are expected to occur over time as funding becomes available and as dictated by need. As such, due to the long-range nature of the proposed Master Plan Addendum, vegetation in the burn zone will have recovered before most of the vegetation-impacting improvements on the Annex site are implemented.

6. Removal/replacement of non-native trees would be phased (i.e., occur over time as improvement projects are implemented), thus maintaining an appropriate tree canopy on the Annex site.

7. Approximately 800 trees exist on the Annex site, of which a total of only approximately 8% would be removed and/or replaced.

In addition to these factors, none of the vegetation that would be impacted as a result of the proposed HMP Addendum supports any special-status species (see part [a], above). Impacts on common wildlife species are considered less than significant environmental impacts pursuant to CEQA. Additionally, improvements undertaken on the Annex site would be required to comply with all regulations protecting wildlife, including the Migratory Bird Treaty Act and Sections 3503-3517 of the California Fish and Game Code. Given the factors listed above, the lack of special-status species habitat, and the required compliance with regulations protecting wildlife, the proposed HMP Addendum would not result in any significant impacts on wildlife that has been displaced by the Station Fire.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

☐	☐	☐	☐	☐	☒	☐

The proposed HMP Addendum would not conflict with any local policies or ordinances protecting biological resources. The only such ordinance in the City of Pasadena is Ordinance No. 6896 "City Trees and Tree Protection Ordinance" (Municipal Code § 8.52 et seq). Pursuant to PMC § 8.52.020, all trees on the Annex site are considered "Public Trees" and subject to the provisions of this ordinance.

The proposed HMP Addendum includes the following recommendations/components that would/could result in the removal of trees:

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Yes				No		
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- Phased removal/replacement of trees that are not native to the Arroyo Seco and/or the region for habitat restoration. Based on the City's estimates, there are approximately 800 trees on the Annex site and approximately 92% of those trees are native species. Thus, approximately 8% of the existing trees (approximately 70 trees) would be removed/replaced for habitat restoration. Recognizing the benefits that any mature tree provides, removal/replacement of non-native trees would occur in phases (i.e., as improvement projects are implemented) to maintain an appropriate tree canopy on the Annex site.

- Removal of trees that are unhealthy, diseased, and/or hazardous.

- Removal of trees displaced by the proposed bikeway along the northern property line (see Chapter 4 and Table 4.2 for details).

- Possible displacement of trees by other recommended improvements, as dictated by the final design of such improvements. See Chapter 4 and Table 4.2 for details regarding the trees along the proposed bikeway and other potential trail improvements. While no improvements (other than those listed above) are currently known to displace any trees, it is possible that the actual design of such improvements could demonstrate the need to remove individual trees.

In accordance with the City Trees and Tree Protection Ordinance, prior to the issuance of a grading permit, building permit, or tree removal the City's Urban Forestry Advisory Committee (UFAC) is required to review and provide recommendations on any tree removals on the Annex site. After considering UFAC's recommendations and providing notice as required by PMC 8.52.150, the City Manager would decide whether to authorize the proposed removal of Public Trees.

In addition to tree removal, minor encroachment into root zones is likely to occur with project construction; however, such actions are also covered by the Ordinance and its accompanying Tree Protection Guidelines. Complying with the procedures for removing Public Trees required by the City Trees and Tree Protection Ordinance, and following the Ordinance's required Tree Protection Guidelines ensures that the proposed HMP Addendum would not cause any significant tree impacts.

It should be further noted that a major component of the proposed HMP Addendum is habitat restoration, including revegetating the existing oak woodland onsite and establishing/restoring a sycamore woodland near the site's eastern border. These restoration efforts, along with the landscaping proposed in and around the Environmental Education Center and Equestrian Center, would improve tree habitat on the Annex site.

Additionally, based on a settlement agreement between the City of Pasadena and the Spirit of the Sage Council[5] that applies to the existing portions of the Hahamongna Watershed Park, the City is required to leave all dead or dying trees "in situ for ecological purposes" except in the cases where

[5] Settlement Agreement of February 9, 2004, between the City of Pasadena and Spirit of the Sage Council" on file with the Public Works Department and the City Attorney's Office.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
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the "dead or dying limbs and trees…pose threats to persons or structures as determined in the City's sole discretion." While this settlement agreement does not apply to the Annex site, the proposed HMP Addendum would not affect this requirement for the balance of the Hahamongna Watershed Park.

f. Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan?

☐	☐	☐	☐	☐	☐	☒

The Arroyo Seco Master EIR indicated that no impacts related to adopted conservation plans, natural community conservation plans, or other approved habitat conservation plans would occur, because there are no such defined plan areas within the City. Thus, no conflicts are expected, and no additional impact on the environment.

Applicable Mitigation Measures from the Arroyo Seco Master Plan Master EIR:

☒ Measure Biological-1: The following mitigation program has been developed and shall be implemented to ensure no net loss of federally- and state-listed and sensitive species due to impact to potentially suit-able habitat.

- Prior to project component implementation, surveys would be conducted for listed and sensitive plants potentially occurring on site, to confirm that they are not present within potentially suitable habitat.
- If listed or sensitive plants are observed to occur in areas that would be impacted by implementation of project elements, the plants would be avoided. Fencing will be put around the plants including buffer area to ensure plants are not impacted. The buffer area will be determined in consultation with the USFWS and CDFG. Monitoring will occur be-fore, during, and after component implementation to ensure avoidance of the plants.

☒ Measure Biological-2: Under federal and state regulations, the applicant would be required to mitigate the unavoidable loss of wetlands and riparian habitats such that no net loss in extent or value of wetland habitats result. The location and type of mitigation to be performed would be subject to de-termination by the CDFG, U.S. Army Corps of Engineers, and the USFWS. Refinement of design to avoid impacts to wetlands and waters of the United States may be required to re-duce, to the degree possible, the acreage affected. The most appropriate mitigation of unavoidable impacts in most cases is creation of on site wetland communities with similar composition and functional value to those of the impacted wetlands. This is known as "on site/in kind" mitigation. Other mitigation strategies include

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Yes				No		
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on site/out of kind, off site/in kind, and off site/out of kind. Wetland areas shall be replaced on a minimal acre per acre basis and include the following elements:

- Collection of propagules (seeds, stem, and root cuttings) from existing vegetation. These shall be grown under nursery conditions until grading and site preparation for mitigated wetlands is completed.
- Stockpiling of top 6 to 12 inches of wetlands soils from impacted areas when feasible.
- Revegetation of wetland hydrology through excavation, redirection of runoff, or other appropriate measures.
- Redistribution of wetland soils into new or expanded channels.
- Planting and maintenance of vegetation until it is established. Plantings ideally should consist of the same species in slightly higher ratios (to allow for mortality) to those presently found on site.
- Maintenance of a buffer zone of native vegetation surrounding retained or created wetlands (minimum of 100 feet on both sides of the incised channel is recommended).
- Monitoring and removal of exotic, invasive species.

☒ Measure Biological-3: Prior to implementation of the Hahamongna Watershed Park Master Plan, directed surveys for arroyo toad shall be conducted according to USFWS protocol. If arroyo toad is deter-mined to be present, any grading activities that may occur below the ordinary high water mark shall take place during the non-breeding season. Additionally, a biological monitor who holds a valid USFWS permit for Arroyo southwestern toad shall be present during grading activities and, if necessary, relocation of Arroyo southwestern toad would be conducted.

3.5 CULTURAL RESOURCES. Would the project:

a. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?

☐	☐	☐	☐	☐	☒	☐

The Arroyo Seco Master EIR evaluated cultural resources for the Hahamongna Watershed Park environs, including conducting an archaeological records search and site reconnaissance (Arroyo Seco Master EIR, p. 3.4-1), and described in detail the federal, state and local regulatory framework for evaluating and protecting cultural resources. Specifically, CEQA Guidelines Section 15064.5 explains when such resources must be considered historic, and grants a local agency considerable latitude in assigning historic status to un-designated resources.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

The Master EIR identified two listed resources in the HWP area on the JPL property, and noted that the Devil's Gate Dam and Reservoir are recognized as local historic resources, determined to be eligible for state listing. None of these designated resources would be affected by the proposed HMP Addendum.

The HMP Addendum includes renovating the existing (former) U.S. Forest Service (USFS) buildings in the northwest portion of the Annex for use as a new environmental education and conference center. These structures were constructed in the early 1950s, more than 50 years ago. However, these buildings are utilitarian structures constructed of concrete masonry block that do not possess any unique architectural features or historic significance. As such, renovation and remodeling of these structures would not cause a substantial change in the significance of a historic resource. In addition, all renovations must conform to the Arroyo Seco Design Guidelines. As described in section 3.1, Aesthetics, the Guidelines also call for architectural design that is integrated into the site, and of a scale and character appropriate to the Arroyo Seco. Compliance with these Guidelines, would that ensure any building renovations would maintain the character of the Arroyo Seco setting.

There are also several retaining walls constructed of arroyo stone that date from the USFS use of the Annex site. These walls are proposed to be retained on site. No additional impact to their historic characteristics is anticipated. Accordingly, the project will have no additional significant impact on the environment.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

☐	☐	☐	☐	☒	☐	☐

The archeological report prepared for the Arroyo Seco Master EIR indicated that hillsides and native soils in the HWP area have a "high sensitivity" for such resources, notably remnants of the Native American population known as the Gabrieliño, or Tongva (Arroyo Seco Master EIR, p. 3.4-17). Gabrieliño village sites have been associated with the La Cañada-Flintridge, Pasadena, San Marino, and Altadena areas, although little evidence of these villages has been documented. Although no extensive grading operations are proposed for the Hahamongna Annex site, project construction may still affect unknown Gabrieliño or other undiscovered resources during finish grading operations to restore parking lot surfaces or constructing retaining walls.

To avoid significant impacts to these resources, Master EIR Mitigation Measure Cultural-3 requires the presence of an archaeologist during grading, who would be authorized to halt construction if cultural resources were revealed. With this measure in place, and applied to the Annex area, remaining impacts to archeological resources would be less than significant. Accordingly, the project will have no additional significant impact on the environment.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

☐	☐	☐	☐	☒	☐	☐

The Arroyo Seco Master EIR incorporated a 1993 city-wide review of paleontological resources, which indicated that such resources were likely to be discovered during construction of the HWP, because several elements (a parking garage, foundations for buildings, etc.) would require excavating within underlying bedrock (Arroyo Seco Master EIR, p. 3.4-20). None of the proposed construction on the Annex site is anticipated to require such excavation; most site grading would be shallow, fine-grading operations to restore parking lot surfaces or to create foundations for retaining walls. However, if deep excavation becomes necessary, incorporation of the Master EIR Mitigation Measure Cultural-1 would ensure that paleontological resources were protected. With this measure in place, and applied to the Annex area, remaining impacts to paleontological resources would be less than significant. Accordingly, the project will have no additional significant impact on the environment.

d. Disturb any human remains, including those interred outside of formal ceremonies?

☐	☐	☐	☐	☒	☐	☐

As described in part (b) above, the HWP area may have been used in the past by the Gabrieliño Native American population. Although the Annex site is not known to have been used as a burial site, and has been used for institutional and recreational purposes for years, new site grading and construction may still reveal human remains. If such remains are encountered during project construction, California Health and Safety Code § 7050.5 requires construction to stop until the County Coroner has made the necessary findings as to the origin and disposition of the remains, complying in turn with Public Resources Code § 5097.98. Compliance with these regulations would ensure the proposed project would not result in significant impacts due to disturbing human remains. Moreover, the Master EIR Mitigation Measure Cultural-5 would also apply to the project, which requires a pre-construction briefing for all heavy equipment operators who would be grading in the Arroyo Seco, and by extension, the Annex site. With these regulations and measures in place, and applied to the Annex area, remaining impacts to paleontological resources would be less than significant. Accordingly, the project will have no additional significant impact on the environment.

<u>Applicable Mitigation Measures from the Arroyo Seco Master Plan Master EIR:</u>

☒ Measure Cultural-1: The City of Pasadena shall minimize impacts to paleontological resources by requiring monitoring of excavations in parent material and bedrock and data recovery of any encountered resources. The potential to disturb underlying bedrock and parent material is anticipated for a limited number of improvements in HWP and CAMP elements of the Arroyo Seco Master Plan:

Hahamongna Watershed Park

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

- Flint Wash bridge and north bridge
- 4 public restrooms

Lower Arroyo Seco

- 2 public restrooms
- Camel's hump slope stabilization

The Vertebrate Paleontology Section of the County of Los Angeles Natural History Museum recommends that a qualified paleontologist should properly monitor any significant subsurface excavation that has the potential to affect underlying parent material on bedrock, in the project area so that the remains may be recovered quickly. Where the qualified vertebrate paleontologist identifies the potential for the grading plan to result in impacts on sediments with high potential to contain significant non-renewable paleontological resources, a program for recovery of the resources shall be designed and implemented:

- Monitoring of excavation in areas likely to contain paleontological resources by a qualified vertebrate paleontological monitor. The monitor should be equipped to salvage fossils, as they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil vertebrates.
- Preparation of recovered specimens to a point of identification, including washing of sediments to recover small fossil vertebrates.
- Identification and curation of specimens into a museum repository with retrievable storage.
- Preparation of a report of findings with an appended, itemized inventory of the specimens. The report and inventory, when submitted to the appropriate local agency, signifies the completion of the program to mitigate impacts to paleontological resources.

Completion of this measure shall be monitored and enforced by the City of Pasadena Department of Public Works.

☒ Measure Cultural-3: The City of Pasadena shall minimize potential impacts to currently unknown cultural resources in native soils by requiring an archeologist to be present during grading in native soils. Grading in native soils is anticipated for specified components for each element of the Arroyo Seco Master Plan:

Hahamongna Watershed Park

- 16 surface parking areas
- 4 public restrooms

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

- Johnson Field expansion[6]
- New trail segments

Central Arroyo Seco

- New pedestrian pathways

Lower Arroyo Seco

- 2 surface parking areas
- 2 public restrooms
- New trail segments
- New pedestrian pathways
- Placement of boulders of sufficient size to compress subsurface deposits

Prior to the initiation of grading activities in native soils, the City of Pasadena Department of Public Works shall ensure that the project specifications require a qualified archeologist to be present during grading activities within native soils. The archeologist shall be authorized to halt construction, if necessary, in the immediate area where buried cultural remains are encountered. Prior to the resumption of grading activities in the immediate vicinity of the cultural remains, the City of Pasadena Department of Public Works shall provide the archeologist with the necessary resources to identify and implement a program for appropriate disposition (as specified by Section 15064.5 (e) of the State CEQA Guidelines). Completion of this measure shall be monitored and enforced by the City of Pasadena Department of Public Works.

☒ Measure Cultural-4: The City of Pasadena shall minimize potential impacts to currently unknown Native American sites by requiring a Native American monitor to be present during grading in native soils. Grading in native soils is anticipated for specified components for the HWP and LAMP elements of the Arroyo Seco Master Plan:

Hahamongna Watershed Park

- 16 surface parking areas
- 4 public restrooms
- Johnson Field Expansion

[6] Note that the project description does not include any work toward re-instituting the use of Johnson Field as a recreational field. Rather, all of the mitigation measures herein are repeated verbatim as adopted by the City Council on April 14, 2003. Pursuant to CEQA case law, the City cannot modify those mitigation measures through this IS. The substance of the mitigation measures will be applied as relevant to the improvements identified in the project description.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

Lower Arroyo Seco

- 2 surface parking areas
- 2 public restrooms

Prior to the initiation of grading activities in native soils, the City of Pasadena Department of Public Works shall ensure that the project specifications require a qualified Native American monitor to be present during grading activities within native soils. The Native American monitor shall be authorized to halt construction, if necessary, in the immediate area where buried cultural remains are encountered. Prior to the resumption of grading activities in the immediate vicinity of the cultural remains, the City of Pasadena Department of Public Works shall provide the Native American monitor with the necessary resources to identify and implement a program for appropriate disposition (as specified by Section 15064.5(e) of the State CEQA Guidelines). Completion of this measure shall be monitored and enforced by the City of Pasadena Department of Public Works.

☒ Measure Cultural-5: The City of Pasadena shall minimize the potential for unauthorized disturbance of human remains by conducting a pre-construction briefing with all heavy equipment operators who would potentially be grading in the Arroyo Seco. Grading in native soils is anticipated for specified components for the HWP and CAMP elements of the Arroyo Seco Master Plan:

Hahamongna Watershed Park

- 16 surface parking areas
- 4 public restrooms
- Johnson Field expansion

Lower Arroyo Seco

- 2 surface parking areas
- 2 public restrooms
- New trail segments

During grading activities in native soils, the project specifications shall require that a pre-construction briefing be undertaken to notify the construction foreman and all personnel involved in grading activities of the requirement to notify the coroner of the country within 24 hours of the discovery of the remains. Upon discovery of human remains, there shall be no further excavation or disturbance of the site or any nearby or reasonably nearby area reasonably suspected to overlie adjacent human remains until:

- The coroner of the county in which the remains are discovered has been informed and has determined that no investigation of the cause of death is required, and

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

- If the remains are of Native American origin, the descendants from the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.

Completion of this measure shall be monitored and enforced by the City of Pasadena Department of Public Works.

3.6 ENERGY. Would the proposal:

a. Conflict with adopted energy conservation plans? AND/OR

☐	☐	☐	☐	☐	☒	☐

b. Use non-renewable resources in a wasteful and inefficient manner?

☐	☐	☐	☐	☐	☒	☐

The proposed facility is intended to be a model for green and sustainable technology. All new structures would be constructed in accordance with Leadership in Energy and Environmental Design (LEED) standards; and many of the existing structures onsite would be rehabilitated in accordance with LEED standards. Thus, the proposed facilities would not conflict with energy conservation plans and would not use non-renewable resources in a wasteful or inefficient manner. Therefore, the proposed HMP Addendum would not cause any significant environmental impacts related to energy.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

3.7 GEOLOGY AND SOILS. Would the project:

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

☐	☐	☐	☐	☐	☐	☒

As shown on Plate P-1 of the Safety Element of the City's General Plan[7], and as discussed in the Arroyo Seco Master EIR, the project site is not within any potential fault rupture zones. The closest fault zone identified in the Safety Element is an active strand of the Tujunga Fault, which lies approximately ¼-mile north of the Annex site. The closest Alquist-Priolo Earthquake Fault Zone is the Raymond Hill Fault Zone, which is located more than six miles south of the project site. Therefore, the proposed project would not expose people or structures to potential substantial adverse effects caused by the rupture of a known fault and the project would cause no related impacts.

ii. Strong seismic ground shaking?

☐	☐	☐	☐	☐	☒	☐

Since the City of Pasadena is within a larger area traversed by active fault systems, including the San Andreas and Newport-Inglewood Faults, any major earthquake along these systems will cause seismic ground shaking in Pasadena. Much of the City is on sandy, stony or gravelly loam formed on the alluvial fan adjacent to the San Gabriel Mountains. This soil is more porous and loosely compacted than bedrock and, thus, subject to greater impacts from seismic ground shaking than bedrock. However, the risk of earthquake damage is minimized because structures are required to be built according to the Uniform Building Code. Of note, structures for human habitation must be designed to meet or exceed California Uniform Building Code (UBC) standards for Seismic Zone 4.

The HMP Addendum calls for the rehabilitation and reuse a number of the existing structures on the project site and, potentially, the replacement of the site's Equestrian Center Clubhouse. All rehabilitation and new construction is required to meet UBC standards; and the reuse of the structures onsite will require a new Certificate of Occupancy from the City's Building Division. To that end, one intent of the proposed rehabilitation is to bring all structures proposed for reuse into compliance with the Building Code. Prior to issuing of a Certificate of Occupancy, the Building

[7] City of Pasadena. *Safety Element of the General Plan.* August 2002.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

Division is required to review tenant improvement plans and inspect the rehabilitated structures for compliance with all Building and Safety Codes, including the structural engineering standards that are intended to address seismic safety. Conforming to these required standards, as required by the Pasadena Municipal Code (PMC), ensures the proposed project would not result in significant impacts due to strong seismic ground shaking.

iii. Seismic-related ground failure, including liquefaction as delineated on the most recent Seismic Hazards Zones Map issued by the State Geologist for the area or based on other substantial evidence of known areas of liquefaction?

☐	☐	☐	☐	☐	☒	☐

As discussed in the Arroyo Seco Master EIR, the Hahamongna Annex site lies on the boundary of and partially within a "Liquefaction Hazard Zone" identified on Plate P-1 of the City's Safety Element. This Hazard Zone corresponds directly with the "Liquefaction" area identified on the California Division of Mines and Geology's Seismic Hazard Zones, Pasadena Quadrangle[8] map. The Liquefaction Hazard Zone designates "areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements…"[9]

The boundaries of the Liquefaction Hazard Zone in this area correspond to the boundaries of the Devil's Gate Reservoir. This indicates that the Liquefaction Hazard Zone was mapped in consideration of potentially high groundwater conditions in the project area associated with the Reservoir, rather than due to historic occurrences of liquefaction.

Groundwater well monitoring conducted by Pasadena Water & Power (PWP) indicates that groundwater levels at the project site are greater than 50 feet below the surface. PWP's most recent groundwater collection and sample logs (October and November, 2008), which are included as Appendix B of this document, report that groundwater from the three monitoring wells on or in the immediate vicinity of the site (wells MW-5, MW-10, and MW-21) was encountered at depths of 54.56 - 88.05 ft below the surface. The Southern California Earthquake Center's *Guidelines for Analyzing and Mitigating Liquefaction in California*, states that liquefaction assessments are not required when the highest groundwater level is at least 50 feet below ground level[10].

Due to (1) the presence of the site partially within but along the boundary of the mapped Liquefaction Hazard Area associated with Devil's Gate Reservoir; (2) the depth of groundwater

[8] California, State of. Department of Conservation, Division of Mines and Geology. *State of California Seismic Hazard Zones, Pasadena Quadrangle, Official Map.* March 25, 1999.
[9] Ibid.
[10] Southern California Earthquake Center. *Recommended Procedures for Implementation of DMG Special Publication 117, Guidelines for Analyzing and Mitigating Liquefaction Hazards in California.* March 1999. See Section 4.0 *Preliminary Screening for Liquefaction.*

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

being greater than 50 ft at the project site; and (3) the fact the structures onsite have not experienced liquefaction damage in over 50 years of existence, the reuse of the structures onsite is not expected to expose people to potential substantial adverse effects caused by liquefaction/seismic-related ground failure, and the project's impacts are considered less than significant.

iv. Landslides as delineated on the most recent Seismic Hazards Zones Map issued by the State Geologist for the area or based on other substantial evidence of known areas of landslides?

☐	☐	☐	☐	☐	☐	☒

As shown on Plate P-1 of the City's Safety Element, the project site is not within a Landslide Hazard Zone; and the Arroyo Seco Master EIR did not identify the potential for landslides as a significant impact related to geological hazards. The proposed project would not expose people or structures to landslides hazards and the project would cause no landslide-related impacts.

b. Result in substantial soil erosion or the loss of topsoil?

☐	☐	☐	☐	☐	☒	☐

The natural water erosion potential of soils in Pasadena is low, unless these soils are disturbed during the wet season. Both the Ramona and Hanford soils associations, which underlay much of the City, have high permeability, low surface runoff and slight erosion hazard due to the gravelly surface layer and low topographic relief away from the steeper foothill areas of the San Gabriel Mountains. Furthermore, the erosion potential of the subject site is limited due to the site's flat topography.

In addition, the potential for erosion during construction on the site is limited since implementation of the proposed Master Plan would not lead to a substantial amount of grading. Nearly all of the grading involved in implementing the proposed Master Plan consists of site preparation for parking lot development/improvements, vehicular access improvements, trail realignment/improvements, and building expansion/construction. Despite the limited amount of grading included in the proposed Master Plan, loose soils could be exposed during grading and other construction activities; and such loose soils could be subject to water and wind erosion.

In accordance with the National Pollutant Discharge Elimination System (NPDES) (Section 402 of the Clean Water Act) water erosion during construction will be minimized by applying Best Management Practices (BMPs), which could include limiting construction to dry weather, covering exposed excavated dirt during periods of rain, and protecting excavated areas from flooding with temporary berms. Likewise, wind erosion would be minimized by applying Best Available Control Technologies (BACT) during construction in accordance with SCAQMD Rule 403. BACTs to be utilized onsite may include watering during construction, application of soil binders, and preventing track-out onto adjacent streets. Compliance with these existing requirements ensures that

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

implementation of the proposed Master Plan Addendum would not cause any significant impacts related to soil erosion or the loss of topsoil.

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

☐	☐	☐	☐	☐	☒	☐

As discussed above in subsections 3.7(a) (iii) and (iv), the project site is not expected to be subject to liquefaction or landslide hazards. Furthermore, the site is largely flat, and not located on a hillside, slope, bluff, or any other potentially unstable geologic unit. Therefore, the Master Plan Addendum is not expected to result in any significant impacts related to unstable geologic units or soils.

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

☐	☐	☐	☐	☐	☒	☐

According to the City's Safety Element, the project site is underlain by alluvial material from the San Gabriel Mountains. This soil consists primarily of sand and gravel and is in the low to moderate range for expansion potential. As such, no significant impacts from expansive soil are expected onsite.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

☐	☐	☐	☐	☐	☐	☒

The proposed Master Plan does not involve the establishment of septic tanks or alternative wastewater disposal systems. Conversely, the Master Plan Addendum calls for relocating (and potentially replacing) the existing mobile home in the Youth Camp and Equestrian Operations Area so that the unit can be connected to the City's sanitary sewer and the existing septic tank abandoned. Since sewers are available and would be utilized for the disposal of wastewater, soil suitability for septic tanks or alternative wastewater disposal systems is not applicable in this case, and the proposed project would have no associated impacts.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

3.8 HAZARDS AND HAZARDOUS MATERIALS. Would the project:

a. Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?

☐	☐	☐	☐	☐	☒	☐

The HMP Addendum does not involve uses that store or utilize hazardous substances, other than the pesticides, fertilizers, and cleaning agents required for normal maintenance of the facility. Such materials would be primarily stored within the maintenance and storage sheds that currently exist on the Annex site; and the storage and use of pesticides, fertilizers, and cleaning agents would be conducted in accordance with all applicable regulations and manufacturer's specifications. Of note, the proposed facility is intended to be a model for sustainability and green technology. As such, much of the landscaping, in particular the plant labs and demonstration gardens, would not utilize the level of pesticides and fertilizers required for normal landscaping or greenhouses. Additionally, the proposed HMP Addendum requires equestrian tenants to collaborate with the proposed environmental education center to recycle horse waste for small garden composting within the Annex, the greater HWP, and other city park projects, which would reduce the need for chemical fertilizers. Due to the small amounts of pesticides, fertilizers, and cleaning agents that would be used onsite, the existence of maintenance sheds to store such materials, and the sustainability and green technology intentions of the facility, the proposed HMP Addendum would not result in significant impacts from the transport, use, or disposal of hazardous materials.

Converting the former U.S. Forest Service facility into an Environmental Education Center will require repairing/remodeling the existing concrete block structures onsite. Like many such buildings built in the 1950's, these structures may contain asbestos, poly vinyl chloride carpets, mold, and paint with lead. During construction, workers may be exposed to these materials.

Construction worker health and safety is ensured through multiple programs and regulations at both the federal and state levels. At the federal level, the Occupational Safety and Health Act requires employers to "furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees". Title 29, Chapter 17 of the Code of Federal Regulations (CFR) established the federal Occupational Safety and Health Administration (OSHA). Within this chapter, Sections 1529 (29 CFR 1529) and 1926.62 (29 CFR 1529) specifically establish safety procedures for construction workers handling asbestos and lead. At the state level, the Department of Industrial Relations and its Division of Occupational Safety and Health (Cal/OSHA) oversee construction worker health and safety. In particular, the California Code of Regulations (CCR), Title 8, Chapter 4, Subchapter 4 identifies the State's *Construction Safety Orders*. Sections 1529 and 1532.1 specifically establish safety procedures for construction workers handling asbestos and lead.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

Given the existing regulations and programs in place at both the federal and state level, the proposed HMP Addendum would not cause a significant hazard to construction workers repairing/remodeling the existing structures onsite.

Likewise, the proposed HMP Addendum would not cause a significant hazard to patrons and employees of the Environmental Education Center. The primary concern for the hazardous building materials that may exist in the former U.S. Forest Service buildings is during construction when such materials are disturbed and the particles could become airborne and ingested or inhaled. Nonetheless, the proposed repair/rehabilitation of the former U.S. Forest Service buildings would remove all necessary hazardous building materials from the structures onsite. In addition, the proposed repair/rehabilitation would improve the structures' ventilation, which would result in improved indoor air quality.

b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

☐	☐	☐	☐	☐	☒	☐

No aboveground storage tanks, underground storage tanks, natural gas transmission lines, or other hazardous material storage facilities/conduits would be installed on the Annex site. Therefore, the HMP Addendum would not cause a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions, which could release hazardous material.

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

☐	☐	☐	☐	☐	☒	☐

La Cañada High School lies just west of the Annex site, across Oak Grove Drive. However, the uses on the Annex site would not emit hazardous materials, and, as discussed above in sections 3.8(a) and 3.8(b), the only hazardous materials that would be utilized or stored onsite would be pesticides, fertilizers, and cleaning agents required for normal maintenance of the facility. None of the pesticides, fertilizers, or cleaning agents anticipated to be used onsite would adversely affect the students or faculty at La Cañada High School, as such materials have been used on the Annex site in the past and similar materials are used to maintain the High School campus. Therefore, the proposed HMP Addendum would not cause any significant impacts related to hazardous emissions or handling of hazardous materials, substances, or waste within one-quarter mile of a school.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

☐	☐	☐	☐	☒	☐	☐

A review of the California Hazardous Waste and Substances Sites List published by the California Environmental Protection Agency (CAL/EPA), Department of Toxic Substances Control (DTSC)[11] revealed one (1) reported hazardous material item connected with site. This item is identified as the "Oak Grove Ranger Station" (Ref. No. T0603700208), which appears on the California State Waterboard's Leaking Underground Fuel Tank (LUFT) list. Per the DTCS's Envirostor database[12], in August of 1990 a gasoline tank leak was reported that had the potential to impact the soil. By December of 1990, the spill had been contained, the site cleaned, and the case closed. No other hazardous material items are listed in connection with the site.

In addition to the information available from the DTSC, the U.S. Forest Service conducted soil sampling of the maintenance area of the Oak Grove Ranger Station in October, 2003. (See the corresponding Soil Sampling Report in Appendix C of this document.) The sampled soils were analyzed for total petroleum hydrocarbons, pesticides, herbicides, and metals. None of the soil samples contained any chemicals at or above the respective action levels.

Given the status of the Annex site on the California Hazardous Waste and Substances Sites List and the results of the soil sampling that occurred onsite, the proposed HMP Addendum would not result in significant impacts related to hazardous material contamination resulting from uses on the Annex site.

The Annex site, however, lies immediately south and down gradient from JPL, which is a Superfund Site pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and has been listed on the National Priority List (NPL) since 1992. The Arroyo Seco Master EIR (pgs. 3.6-6, 7, and 11) provides the following discussion of the hazardous material conditions connected to JPL and their relation to the HWP:

> During its operational history, various chemicals and chemical waste materials were generated at the [JPL] site, including solvents, solid and liquid rocket propellants, and laboratory wastes. In the 1940s and 1950s, many buildings at JPL maintained seepage pits to dispose of liquid and solid wastes collected from drains and sinks within the buildings. The pits were designed to allow liquid wastes to seep into the surrounding soil. The results of a remedial soil and groundwater investigation conducted by the California Environmental Protection Agency (EPA) in 1990 revealed the presence of volatile organic compounds (VOC) in the soil and groundwater at the site in levels

[11] California Department of Toxic Substances Control. *Envirostor* web application www.envirostor.dtsc.ca.gov/public/. Accessed 6 April, 2009.
[12] Ibid.

exceeding federal and state drinking water standards at depths up to 200 feet below ground surface (bgs). Subsequent site investigations have identified a VOC plume beneath approximately 45 acres in the central portion of the site, ranging from about 50 feet bgs to the water table (approximately 200 bgs). In response to a request by the EPA, JPL initiated a long-term quarterly groundwater monitoring program plan in August 1996. Additionally, soil vapor extraction methods are planned to remediate the contaminated soil on site.[13]

Since the inception of the quarterly monitoring plan, the following compounds have been detected in concentrations above their respective state or federal regulatory limits: carbon tetrachloride, trichloroethene (TCE), tetrachloroethene (PCE), Perchlorate, 1,2-DCA, 1,4-Dioxane, Total Chromium, Hexavalent Chromium, and Lead (metals). The results of the April 2001 quarterly monitoring program revealed that carbon tetrachloride, TCE, PCE, and Perchlorate were the only remaining compounds detected at concentrations above their respective limits ([Master EIR] Appendix E). A groundwater treatment facility, located in the northeast portion of the Hahamongna Watershed Park, treats contaminated groundwater pumped from three wells.

In addition, JPL is a permitted hazardous waste generator and solid waste disposal facility. JPL has 19 registered underground storage tanks (USTs) ranging in capacity from 1,000 gallons to 20,000 gallons. There are two leaking underground storage tank (LUST) locations within the JPL facility; both were discovered during tank closures in 1990 and 1995, respectively. These unauthorized releases of petroleum hydrocarbons (gasoline and diesel) were confined to soil and are not a factor in assessing groundwater quality.

… Groundwater in the Hahamongna Watershed Park has been contaminated by chlorinated solvents originating from the JPL facility. Any grading activity below 1040.5 feet above msl elevation within Hahamongna Watershed Park has the potential to expose contaminated soils, thus requiring the consideration of mitigation measures. Subsurface construction activity that has the potential to contact groundwater could expose construction workers or the general public to hazardous materials, thus requiring the consideration of mitigation measures.

In response to the potential contamination of soils and groundwater below 1040.5 feet above msl resulting from the release of hazards materials at JPL, the Arroyo Seco Master EIR includes Measure Hazards-3. While the elevation of the Annex site ranges from 1,100 to 1,045 feet above msl (i.e., above 1040.5 above msl), it is possible that trenching or other grading activities onsite would extend

[13] National Aeronautics and Space Administration Jet Propulsion Laboratory, 24 April 2001. *Proposed Plan to Select a Remedy to Clean Up Soils at the National Aeronautics and Space Administration Jet Propulsion Laboratory, Pasadena, California.*

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

below 1040.5 feet above msl. As such, implementation of the HMP Addendum would be required to comply with Master EIR Measure Hazards-3, as identified below.

Applicable Mitigation Measures from the Arroyo Seco Master Plan Master EIR:

☒ Measure Hazards-3: Potential exposure of construction workers to contaminants in soils or groundwater during grading and construction in areas of Hahamongna Watershed Park below 1040.5 feet msl shall be minimized through the requirement to test for contaminants and establish and implement a remediation plan as part of the proposed grading. Groundwater sampling surveys for contaminants in concentrations above accepted state and federal regulatory levels shall be conducted by the City prior to the commencement of construction activities that would be expected to contact groundwater. If contaminated soils or groundwater are found to be present in the proposed construction areas, the City shall complete remediation or treatment prior to the institution of grading. The City shall be responsible for notifying all construction contractors undertaking activities below the 1040.5 feel msl of the potential for exposure to contaminated soils and groundwater and require adherence to all applicable federal, state, and local standards.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

☐	☐	☐	☐	☐	☐	☒

The project site is not within an airport land use plan or within two miles of a public airport or public use airport. The nearest public use airport is the Bob Hope Airport in Burbank, which is located more than 10 miles from Pasadena. Therefore, the proposed HMP Addendum would not result in a safety hazard for people residing or working in the vicinity of an airport and would have no associated impacts.

f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

☐	☐	☐	☐	☐	☐	☒

The project site is not within the vicinity of a private airstrip. Therefore, the proposed project would not result in a safety hazard for people residing or working in the vicinity of a private airstrip and would have no associated impacts.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

☐	☐	☐	☐	☒	☐	☐

The City of Pasadena maintains a citywide emergency response plan, which goes into effect at the onset of a major disaster (e.g., a major earthquake). The Pasadena Fire Department maintains the disaster plan. In case of a disaster, the Fire Department is responsible for implementing the plan, and the Pasadena Police Department devises evacuation routes based on the specific circumstance of the emergency. The City has pre-planned evacuation routes for dam inundation areas associated with Devil's Gate Dam, Eaton Wash, and the Jones Reservoir.

Implementation of the HMP Addendum would not place any permanent or temporary physical barriers on any existing public streets. Conversely, the site's internal circulation would be improved with new all-weather surface material and additional access routes. In addition, to improve emergency access and maneuverability on the Annex site, the HMP Addendum calls for the elimination of the main gate at the current primary entrance to the public equestrian area.

To ensure implementation of the proposed HMP Addendum would not negatively impact emergency response or evacuation plans, the mitigation measure from the Arroyo Seco Master EIR identified below will be followed. With the incorporation of this measure, the proposed HMP Addendum would clearly have not conflict with emergency response or evacuation plans.

Applicable Mitigation Measures from the Arroyo Seco Master Plan Master EIR:

☒ Measure Public Services – 4: Emergency response and evacuation plans shall be established for the Hahamongna Watershed Park, Central Arroyo Seco, and Lower Arroyo Seco Master Plan areas in accordance with the City of Pasadena Fire Department, Police Department, and Department of Public Works and Transportation.

h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

☐	☐	☐	☐	☒	☐	☐

The proposed HMP Addendum would lead to the reuse of the U.S. Forest Service Station as an environmental education center, the continued use of the site by equestrians, and the use of the site for passive recreation. As shown on Plate P-2 of the City's Safety Element, portions of the Annex site are within the High and Very High Fire Hazard Zones. As such, the structures and uses onsite are currently subject to wildfire hazards.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

Rehabilitation of the Annex site would reduce the fire hazards on the site. The rehabilitation recommended in the proposed HMP Addendum includes replacing roofs, painting, and other improvements to bring the structures into compliance with fire codes. In addition, implementing the proposed HMP Addendum would organize the site's improvements, eliminate debris and other unmaintained flammable material onsite, and provide for vegetation/fuel management.

To ensure, implementation of the proposed HMP Addendum would not negatively impact fire protection, the mitigation measure from the Arroyo Seco Master EIR identified below would be followed. With the incorporation of this measure, the proposed HMP Addendum would clearly have no significant impacts related to wildfire hazards.

Applicable Mitigation Measures from the Arroyo Seco Master Plan Master EIR:

☒ Measure Public Services – 3: All construction and improvements shall be done in accordance with existing fire code and regulations, including the design and construction of fuel modification zones.

3.9 HYDROLOGY AND WATER QUALITY. Would the project:

a. Violate any water quality standards or waste discharge requirements?

☐	☐	☐	☐	☒	☐	☐

Section 303 of the federal Clean Water Act requires states to develop water quality standards to protect the beneficial uses of receiving waters. In accordance with California's Porter/Cologne Act, the Regional Water Quality Control Boards (RWQCBs) of the State Water Resources Control Board (SWRCB) are required to develop water quality objectives that ensure their region meets the requirements of Section 303 of the Clean Water Act.

Pasadena is within the greater Los Angeles River watershed and, thus, within the jurisdiction of the Los Angeles RWQCB. The Los Angeles RWQCB adopted water quality objectives in its Stormwater Quality Management Plan (SQMP). This SQMP is designed to ensure stormwater achieves compliance with receiving water limitations. Thus, stormwater generated by a development that complies with the SQMP does not exceed the limitations of receiving waters and, thus, does not exceed water quality standards.

Compliance with the SQMP is ensured by Section 402 of the Clean Water Act, which is known as the National Pollution Discharge Elimination System (NPDES). Under this section, municipalities are required to obtain permits for the water pollution generated by stormwater in their jurisdiction. These permits are known as Municipal Separate Storm Sewer Systems (MS4) permits. Los Angeles County and 85 incorporated Cities therein, including the City of Pasadena, obtained an MS4 (Permit

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

01-182) from the Los Angeles RWQCB, most recently in 2001. Under this MS4, each permitted municipality is required to implement the SQMP.

In accordance with the County-wide MS4 permit, all new developments must comply with the SQMP. In addition, as required by the MS4 permit, the City of Pasadena has adopted a Standard Urban Stormwater Mitigation Plan (SUSMP) ordinance to ensure new developments comply with SQMP. This ordinance requires most new developments to submit a plan to the City that demonstrates how the project will comply with the City's SUSMP.

The proposed HMP Addendum largely consists of the reuse of the existing U.S. Forest Service Station and the continued equestrian use of the Annex site. The reuse of the U.S. Forest Service Station as an environmental education facility would not cause a noticeable change in runoff water pollution. Runoff from this portion of the Annex site would continue to collect sediment, vehicle oils/grease, remnant metals, trash, and other typical nonpoint-source pollutants. Implementation of the proposed HMP Addendum would increase the activity onsite and, as a result, could increase the amount of pollutants interacting with stormwater runoff. However, this potential increase in stormwater pollution would be offset by the inclusion of bioswales and other water quality improvements in the HMP Addendum.

Runoff in the equestrian facility portion of the site currently collects water pollutants, including equine waste (e.g., nutrients, biological pollutants, etc.) and sediment. Improvement of runoff water quality from the equestrian facilities onsite is primary intent of the HMP Addendum. As such, the proposed HMP Addendum includes a variety of improvements that would reduce the pollutant load in runoff from the equestrian area, including:

- Installing natural stormwater drainage courses within and along the edge of the equestrian center and at critical areas within the Annex site, with the goal of eliminating and treating any runoff from this area before it enters the Arroyo Seco;
- Establishing drainage courses that will prevent the use of paths and access routes as the primary corridors for concentrating drainage flows;
- Incorporating design features, such as vegetated swales and permeable surfaces in parking lots, to reduce the volume of runoff, allow ground water percolation, and improve water quality/pretreat runoff before entering storm drains or the Arroyo Seco;
- Stabilizing erosion prone areas with vegetation and/or repair/improve any non-functioning systems to eliminate the severe erosion caused by concentrated flow in such areas; and
- Establishing a centralized and communal horse waste disposal area that will replace the multiple existing horse waste containers, some of which are currently failing.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

In addition to these physical improvements, the HMP Addendum includes developing an outreach program and educational material for various user groups to teach about the impacts of animal wastes on Arroyo water quality and to assist with animal waste hot spots on trails prior to and during the storm season.

In addition to the water quality benefits of the HMP Addendum, Measures Hydro-1 and Hydro-2 from the Arroyo Seco Master EIR (see below) would be implemented on the Annex site. With the implementation of the water quality improvements included in the HMP Addendum and the incorporation of Measures Hydro-1 and Hydro-2 from the Arroyo Seco Master EIR, the proposed HMP Addendum would have no significant adverse impacts related to violations of water quality standards or waste discharge objectives.

Applicable Mitigation Measures from the Arroyo Seco Master Plan Master EIR:

☒ Measure Hydro –1: A construction storm water pollution prevention plan (SWPPP) shall be prepared prior to construction as part of the final project plan. This plan shall be implemented during and after construction. Standard Urban Stormwater Mitigation Plan (SUSMP) requirements shall be followed and included in project Best Management Practices (BMPs), both for structural and non-structural measures. Parking lots to be constructed within the floodplain may use pervious surfaces to increase infiltration; and provide a runoff filtration system. Wetland ponds at the flow outlets or vegetative swales bordering the parking areas may be integrated as part of parking lot design to achieve the water quality improvement objectives. On-site retention systems may be constructed at the low flow concentration locations or any on-site retention of trash, oil/grease, and other waste shall be removed prior to major storm events to avoid inundation and conveyance to the downstream channel. Frequent site maintenance shall be conducted to ensure that project BMPs are functioning as intended.

☒ Measure Hydro –2: BMPs for oil/grease control at the existing parking areas and trash management shall be implemented throughout the walking areas to mitigate water quality impacts.

b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

☐	☐	☐	☐	☐	☒	☐

The Hahamongna Annex site lies above the western rim of Devil's Gate Reservoir, which retains stormwater and allows percolation into the Raymond Groundwater Basin (Raymond Basin). The Raymond Basin is a water source for Pasadena Water & Power (PWP), which also serves imported

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

water. PWP maintains settling basins along the east side of Devil's Gate Reservoir and the existing HWP Master Plan identifies three future spreading basins to be developed along the west side of the Reservoir, just east of the Annex site.

While the Annex site is adjacent to a groundwater recharge area, the HMP Addendum would not adversely affect groundwater recharge. Implementation of the HMP Addendum would not increase the amount of impervious surface on the Annex site. Conversely, the HMP Addendum calls for replacing existing asphalt, as needed, with permeable paving material, which would improve the permeability of the Annex site. Therefore, the proposed HMP Addendum would not significantly impact groundwater recharge.

Since the uses on the Annex site would use water supplied by PWP, the HMP Addendum would indirectly contribute to PWP's withdraw of groundwater from the Raymond Basin. The Raymond Basin is an adjudicated water basin with water rights administered by a Watermaster. The proposed project would not increase water demand in a manner that would cause PWP to draw water from the Raymond Basin in excess of their adjudicated water rights. Therefore, the water demand of the proposed HMP Addendum would not be a considerable contribution to depletion of groundwater in the Raymond Basin. See also Section 3.17.d for a discussion of the project's potential to impact water supply.

c. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on-or off-site? AND/OR*

☐	☐	☐	☐	☐	☒	☐

d. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site? AND/OR*

☐	☐	☐	☐	☐	☒	☐

e. *Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

☐	☐	☐	☐	☐	☒	☐

The proposed HMP Addendum does not involve the alteration of a stream or river. However, the HMP Addendum does include drainage improvements that would alter local drainage patterns. These improvements, which are summarized in section 2.4.4, are intended to control runoff, eliminate localized ponding of stormwater, and improve water quality. Examples include establishing bioswales and regrading to direct stormwater flows away from unstabilized soil to

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

bioswales and other conveyances. Due to the nature and intent of these drainage improvements, the proposed HMP Addendum would not alter the drainage pattern of the site or area in a manner that would cause significant erosion, siltation, or flooding impacts. Likewise, for the same reasons, the HMP Addendum would not cause an exceedance of the capacity of drainage systems and would not provide substantial additional sources of polluted runoff. See also section 3.9(a) for a discussion of polluted runoff.

f. Otherwise substantially degrade water quality?

☐	☐	☐	☐	☐	☒	☐

As discussed above in section 3.9(a), the proposed uses of the Hahamongna Annex site would not substantially degrade water quality. Conversely, the proposed HMP Addendum includes drainage and water quality improvements.

The construction included in the proposed HMP Addendum, however, also has the potential to generate water pollutants, including sediment, trash, construction materials, and equipment fluids. To alleviate construction-related water pollution, Measure Hydro-1 of the Arroyo Seco Master EIR, as detailed above in section 3.9(a), requires the implementation of a Storm Water Pollution Prevention Plan (SWPPP). In addition, the County-wide MS4 permit (NPDES stormwater permit) requires construction sites to implement best management practices (BMPs) to reduce the potential for construction-induced water pollutant impacts. These BMPs include methods to prevent contaminated construction site stormwater from entering the drainage system and preventing construction-induced contaminates from entering the drainage system. The MS4 identifies the following minimum requirements for construction sites in Los Angeles County:

- Sediments generated on the project site shall be retained using adequate Treatment Control or Structural BMPs;
- Construction-related materials, wastes, spills or residues shall be retained at the project site to avoid discharge to streets, drainage facilities, receiving waters, or adjacent properties by wind or runoff;
- Non-storm water runoff from equipment and vehicle washing and any other activity shall be contained at the project site; and
- Erosion from slopes and channels shall be controlled by implementing an effective combination of BMPs (as approved in Regional Board Resolution No. 99-03), such as the limiting of grading scheduled during the wet season; inspecting graded areas during rain events; planting and maintenance of vegetation on slopes; and covering erosion susceptible slopes.

Through compliance with NPDES permit requirements and with the implementation of Measure Hydro-1, impacts are less than significant.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or dam inundation area as shown in the City of Pasadena adopted Safety Element of the General Plan or other flood or inundation delineation map? AND/OR

☐	☐	☐	☐	☐	☐	☒

h. Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?

☐	☐	☐	☐	☐	☐	☒

No portions of the City of Pasadena are within a 100-year floodplain identified by the Federal Emergency Management Agency (FEMA). As shown on FEMA map Community Number 065050, the entire City is in Zone D, for which no floodplain management regulations are required. Therefore, the proposed project would not place housing or structures within the flow of the 100-year flood, and the project would have no related impacts.

i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

☐	☐	☐	☐	☐	☒	☐

The Hahamongna Annex site lies atop the western rim of Devil's Gate Reservoir. The Devil's Gate Reservoir is formed by Devil's Gate Dam, which lies approximately 3,000 feet downstream from the Annex site. The entire Annex site lies above the Dam's "Floor of Spillway" elevation of 1040.5 ft. above msl; however, the eastern perimeter and southeast corner the site lie below the Dam's "Top of Spillway Headworks" elevation of 1,067 ft. above msl. During the most extreme storm events, the spillway at 1,067 ft. above msl is utilized as an outlet structure.

All of the habitable structures included in the HMP Addendum lie above the Top of Spillway Headworks elevation of 1,067 ft. above msl, including all of the former U.S. Forest Service Structures (barracks, mess hall, administration building, maintenance sheds, and ranger's residence) and the equestrian clubhouse. As such, the proposed HMP Addendum would not expose people or structures to significant impacts related to flooding involving a dam.

It should be further noted that the majority of the Hahamongna Watershed Park along the western rim of the Reservoir lies below the Dam's Top of Spillway Headworks elevation. The Master EIR (pg. 3.7-14) provides the following analysis of impacts related to encroaching into the Devil's Gate Reservoir floodplain:

> The [Arroyo Seco Master] plan involves future construction within the floodplain and adjacent to the floodplain based on the 100-year floodplain boundaries

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

delineated in the previous studies for Arroyo 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.

The potential encroachment impacts of the HMP Addendum are equal to those identified in the Master EIR. As such, the proposed HMP Addendum would cause no additional significant impact on the environment related to encroachment into the Devil's Gate Reservoir floodplain.

j. Inundation by seiche, tsunami, or mudflow?

☐	☐	☐	☐	☐	☐	☒

The potential for inundation by seiche, tsunami, or mudflow were found to be not significant in the Arroyo Seco Master EIR. The City of Pasadena is not located near enough to any inland bodies of water or the Pacific Ocean to be inundated by either a seiche or tsunami. Additionally, the Annex site is not located on or down-gradient from a slope that is prone to mudflow.

3.10 LAND USE AND PLANNING. Would the project:

a. Physically divide an existing community?

☐	☐	☐	☐	☐	☐	☒

The proposed HMP Addendum would establish a use plan for the Hahamongna Annex site. The Annex site is not within or between neighborhoods, but is rather surrounded by JPL to the north, the Oak Grove area of HWP to the south, Devils Gate Reservoir to the east, and La Cañada High School across Oak Grove Drive to the west. In addition, implementation of the HMP Addendum would not restrict vehicular, pedestrian, or bicycle circulation. Conversely, by including bicycle and pedestrian improvements, the HMP Addendum would improve mobility on the Annex site and throughout the entire HWP. Therefore, the HMP Addendum would not physically divide an existing community and would cause no related impacts.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

☐	☐	☐	☐	☐	☐	☒

The entire HWP area, including the Annex site, is designated "Open Space" by the City of Pasadena's General Plan. Likewise, the entire HWP, including the Annex site, is zoned as open space (OS) with the exception of two parcels zoned as Planned Development Districts (PD-16)[14]. Per Section 17.26.020(A) of the City's Zoning Code, "[t]he OS district is applied to sites with open space, parks, and recreational facilities of a landscaped, open character having a minimum contiguous site area of two acres." Section 17.26.030 of the Code specifies that all uses in the OS zone require Conditional Use Permits (CUP). This section further identifies the conditionally allowed uses in the OS zone, which consist of: caretakers quarters; residential accessory uses and structures; clubs, lodges, and private meeting halls; commercial recreation; cultural institutions; electronic game centers; park and recreation facilities; and stadiums and arenas. All of the proposed uses on the Hahamongna Annex site meet the intent of the OS zone and are conditionally allowed uses in the OS zone.

In addition to the City's General Plan and zoning designations, land use on the Annex site is governed by a permanent "Open Space Easement", which was a condition of the sale of the property to the City in 2005 pursuant to the California Surplus Lands Act. This Open Space Easement mandates that the property be used solely for open space or park and recreational purposes. The proposed HMP Addendum is consistent with the open space land use designations/easements for the site. Therefore, the proposed HMP Addendum would not conflict with any applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect.

c. Conflict with any applicable habitat conservation plan (HCP) or natural community conservation plan (NCCP)?

☐	☐	☐	☐	☐	☐	☒

There are no adopted Habitat Conservation or Natural Community Conservation Plans within the City of Pasadena. There are also no approved local, regional or state habitat conservation plans.

[14]During the planning stages, a suggestion was made to convert the zoning of the PD-16-zoned parcel on the Annex site to OS. Changing the PD-16 to OS within the Annex site would eliminate the split-zoning of the site and make the zoning designation consistent with most of the surrounding area. However, to do so without a corresponding adjustment to the JPL parking lot portion of the PD-16 area would jeopardize the use by JPL of the west parking lot in Hahamongna, due to the remainder of the PD not meeting the two-acre size requirement for the PD zoning designation. The suggestion, however, remains appropriate for consideration upon the expiration of the JPL lease.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

3.11 MINERAL RESOURCES. Would the project:

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

☐	☐	☐	☐	☐	☒	☐

b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

☐	☐	☐	☐	☐	☒	☐

No active mining operations exist in the City of Pasadena. There are two areas in Pasadena that may contain mineral resources. These two areas are Eaton Wash, which, was formerly mined for sand and gravel, and Devils Gate Reservoir, which was formerly mined for cement concrete aggregate.

The Annex site lies above the western rim of the Devils Gate Reservoir, but would not result in a loss of concrete aggregate. Implementation of the HMP Addendum does not involve substantial excavation activities or the export of earth materials. Additionally, the proposed HMP Addendum would not preclude the future extraction of concrete aggregate from the Devils Gate Reservoir. Therefore, the proposed HMP Addendum would not cause any significant impacts due to the loss of availability of a mineral resource.

3.12 NOISE. Will the project result in:

a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

☐	☐	☐	☐	☐	☒	☐

Implementation of the proposed HMP Addendum would lead to the reuse of the U.S. Forest Service Station as an environmental education center, the continued use of the site by equestrians, and the use of the site for passive recreation. The proposed and continued uses would generate noise from the congregation of people, outdoor educational and passive recreational activities, equestrian activities, maintenance operations, and vehicle trips/operations. However, the Hahamongna Annex site is not directly adjacent to any sensitive noise receptors.

The roughly "L" shaped Hahamongna Annex site is surrounded by JPL to the north, the Oak Grove area of HWP to the south, Devils Gate Reservoir to the east, and La Cañada High School across Oak Grove Drive to the west. Of these use, only the classrooms and educational facilities at

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

La Cañada High School are sensitive noise receptors. However, the High School is separated from the project site by Oak Grove Drive and both the school and the proposed activity areas of the Annex site are setback from Oak Grove Drive. The educational facilities at the High School are more than 300 feet from the proposed active portions of the Annex site. In addition, the noise sensitive uses at the High School occur indoors. Due to the distance between the proposed active use areas of the Annex site and the noise dampening provided by the school's structure, the noise generated by the proposed uses on the Annex site would not significantly impact La Cañada High School.

In addition to noise generated onsite, the proposed HMP Addendum would increase traffic volumes on supporting roadways, which could increase roadway noise. As identified below in Section 3.17, the trips generated by the proposed HMP Addendum would cause only a minimal increase in street traffic volumes. (Calculated traffic volume increases are: a 1.5% increase on Highland Drive east of Berkshire Avenue and a 0.9% increase on Linda Vista Avenue east of Highland Drive.) For comparison, a doubling of traffic is typically necessary to cause a 3 decibel (dB) increase in noise levels, which is the considered the smallest noise increase audible to the normal adult. Due to the minimal increase in street traffic volumes caused by the HMP Addendum, traffic noise impacts are less than significant.

b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

☐	☐	☐	☐	☐	☒	☐

None of the uses proposed for the Hahamongna Annex site are expected to generate vibrations. Similarly, construction of the improvements included in the HMP Addendum is not expected to generate noticeable vibrations. Construction activities onsite are not anticipated to include pile driving, jack-hammering, or mass grading, which are the construction activities typically associated with vibrations. Therefore, the HMP Addendum would not cause any significant vibration impacts.

c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

☐	☐	☐	☐	☐	☒	☐

See response to 3.12(a). Neither the proposed activities onsite nor the street traffic volumes caused by the implementation of the HMP Addendum would substantially increase ambient noise levels. Therefore, the HMP Addendum's impacts on ambient noise levels are less than significant.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

☐	☐	☐	☐	☒	☐	☐

Implementation of the HMP Addendum would generate short-term noise during construction. Construction activities expected to occur onsite include building additions, building rehabilitation, roofing, general carpentry, parking lot resurfacing, access drive paving, and minor amounts of grading and trenching.

Construction activities on the Annex site are required to comply with PMC § 9.36.080, which limits the noise levels generated by construction equipment. In accordance with this regulation, construction equipment cannot be operated at a noise level in excess of 85 decibels (dBA), as measured within a radius of 100 feet from such equipment. In addition, construction would be required to comply with PMC § 10.52, which limits truck routes. Per this section of the PMC, any construction trucks exceeding 3 tons are largely restricted to traveling on the City's established truck routes (10.52.010).

In addition to the construction noise restrictions required by the PMC, the Arroyo Seco Master EIR includes the mitigation measures below to further minimize construction noise. Compliance with the PMC requirements and the Master EIR mitigation measures would ensure construction activities on the Hahamongna Annex site would not cause any significant noise impacts.

See response to 3.12(a) for temporary or periodic noise generated during operation of the proposed facilities on the Hahamongna Annex site.

Applicable Mitigation Measures from the Arroyo Seco Master Plan Master EIR:

☒ Measure Noise – 1: Construction impacts to ambient noise levels shall be minimized through limits on the times and days when construction shall be allowed. Prior to completion of final plans and specifications for each improvement recommended pursuant to HWP, CAMP [Central Arroyo Master Plan], or LAMP [Lower Arroyo Master Plan] elements of the proposed project that requires concurrent operation by more than one piece of heavy construction equipment, the City of Pasadena Department of Public Works shall ensure that the construction contractor is apprised of the plans and specifications of the requirement to ensure that all grading and construction activities shall be restricted to daily operations between 7:00 a.m. and 7:00 p.m. and that there shall be no work on Sundays or federal holidays. Enforcement shall be the responsibility of the City of Pasadena Police Department.

☒ Measure Noise – 3: Construction impacts to ambient noise levels shall be minimized through requirements to shut down equipment motors when not in use. Prior to completion

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

of final plans and specifications for each improvement recommended pursuant to HWP, CAMP, or LAMP elements of the proposed project that requires concurrent operation by more than one piece of heavy construction equipment, the City of Pasadena Department of Public Works shall ensure that the construction contractor is apprised of the plans and specifications of the requirement to ensure that all construction and grading equipment is turned off when not in use. Enforcement shall be the responsibility of the City of Pasadena Department of Public Works, who shall undertake inspections on a random basis, at least at weekly intervals.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

☐	☐	☐	☐	☐	☐	☒

There are no airports or airport land-use plans in the City of Pasadena. The closest airport is the Bob Hope Airport, which is located more than 10 miles from Pasadena in the City of Burbank. Therefore, the proposed project would not expose people to excessive airport related noise and would have no associated impacts.

f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

☐	☐	☐	☐	☐	☐	☒

There are no private use airports within or near the City of Pasadena.

3.13 POPULATION AND HOUSING. Would the project:

a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

☐	☐	☐	☐	☐	☐	☒

No residential units are included in the HMP Addendum, other than a park ranger/facilities manager residence. The Annex site is designated for open space uses, and implementation of the HMP Addendum would not displace housing. Furthermore, improvements included in the HMP Addendum would not affect existing housing or create demand for additional housing. Therefore, the project would not induce population growth and would have no related impacts.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

☐	☐	☐	☐	☐	☐	☒

Implementation of the HMP Addendum would not displace any housing and would have no related impacts.

c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

☐	☐	☐	☐	☐	☐	☒

Implementation of the HMP Addendum would not displace any people and would have no related impacts.

3.14 PUBLIC SERVICES. Will the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a. *Fire Protection?*

☐	☐	☐	☐	☒	☐	☐

The proposed HMP Addendum would lead to the reuse of the U.S. Forest Service Station as an environmental education center, the continued use of the site by equestrians, and the use of the site for passive recreation. The proposed HMP Addendum, however, does not include constructing multiple new structures. Rather, the proposed HMP Addendum calls for rehabilitation and adaptive reuse of the site's existing structures where feasible. The only new structures recommended by the proposed HMP Addendum are a new public restroom and possibly replacing the existing equestrian clubhouse and equestrian camp mobile home unit, if those structures cannot be rehabilitated.

Rehabilitation of the existing structures onsite would aid in fire protection. The rehabilitation recommended in the proposed HMP Addendum includes replacing roofs, painting, and other improvements to bring the structures into compliance with fire codes. In addition, implementing the proposed HMP Addendum would organize the site's improvements, eliminate debris and other unmaintained flammable material onsite, and provide for vegetation/fuel management. As such, the HMP Addendum is not expected to result in the need for new or additional facilities for the Pasadena Fire Department.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

To ensure implementation of the proposed HMP Addendum would not negatively impact fire protection, the mitigation measures from the Arroyo Seco Master EIR identified below would be followed. With the incorporation of these measures, the proposed HMP Addendum would clearly have no significant impact on fire protection.

Applicable Mitigation Measures from the Arroyo Seco Master Plan Master EIR:

☒ Measure Public Services – 1: The short-term construction impacts related to the developments and improvements delineated in the proposed project are self-mitigating. However, temporary emergency response and evacuation plans shall be established in concert with construction schedules and be provided to fire, police, and park security services.

☒ Measure Public Services – 3: All construction and improvements shall be done in accordance with existing fire code and regulations, including the design and construction of fuel modification zones.

☒ Measure Public Services – 4: Emergency response and evacuation plans shall be established for the Hahamongna Watershed Park, Central Arroyo Seco, and Lower Arroyo Seco Master Plan areas in accordance with the City of Pasadena Fire Department, Police Department, and Department of Public Works and Transportation.

☒ Measure Public Services – 5: Ingress, egress, bridges, and roadways constructed or improved as implemented by the proposed project shall be designed in compliance with Pasadena Fire Department access requirements.

b. Libraries?

☐	☐	☐	☐	☐	☐	☒

The HMP Addendum does not involve any development that would increase the number of libraries users and, therefore, is expected to have no impact thereto.

c. Parks?

☐	☐	☐	☐	☐	☐	☒

The proposed HMP Addendum would not increase the demand for parks. Conversely, the HMP Addendum would improve park facilities in the City of Pasadena. Therefore, the proposed HMP Addendum would not result in the need for new or additional parks and would have no related impacts. See also Section 3.15, below.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

d. Police Protection?

☐	☐	☐	☐	☒	☐	☐

The proposed HMP Addendum would lead to the reuse of the U.S. Forest Service Station as an environmental education center, the continued use of the site by equestrians, and the use of the site for passive recreation. This increase in usage of the Hahamongna Annex site would result in an increased demand on the Pasadena Police Department. The Arroyo Seco Master EIR identifies potential significant impacts on police protection due to an increase in the number of Hahamongna Watershed Park attendees and includes the mitigation measure below to reduce impacts to a less than significant level. With the incorporation of this mitigation measure, the proposed HMP Addendum would not significantly impact police protection. Furthermore, it should be noted that the proposed HMP Addendum would not result in the need for new or additional police facilities.

Applicable Mitigation Measures from the Arroyo Seco Master Plan Master EIR:

☒ Measure Public Services – 2: Additional sworn and non-sworn officers shall be acquired to provide protection services commensurate with the increase in park attendees.

e. Schools?

☐	☐	☐	☐	☐	☐	☒

The proposed HMP Addendum would not increase the population of the City of Pasadena and, as such, would not increase school enrollment. Therefore, the project will have no impact on schools.

f. Other public facilities?

☐	☐	☐	☐	☐	☒	☐

The proposed HMP Addendum would increase the need for park maintenance, which is provided by the City's Department of Public Works/Parks and Natural Resources Division. However, the Hahamongna Annex site contains the facilities needed to maintain the site, including storage buildings, sheds, and garages. Therefore, impacts on park maintenance facilities are less than significant.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

3.15 RECREATION.

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

☐	☐	☐	☐	☐	☐	☒

The proposed HMP Addendum sets the framework for improving the Hahamongna Annex site for recreational and public equestrian uses. The HMP Addendum would expand the HWP by 30 acres and, once improved, the Hahamongna Annex site would dovetail with the existing park facilities in the HWP, resulting in greater recreational opportunities for Pasadena residents and surrounding communities. In addition, the proposed HMP Addendum includes recommendations for park management and the Annex site would include storage buildings, sheds, and garages, which would be used to maintain the Annex site and the overall HWP. In conclusion, the proposed HMP Addendum would improve recreational facilities and would provide for the continued maintenance of such facilities. As such, the proposed HMP Addendum would have no negative impacts on parks or recreational facilities.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

☐	☐	☐	☐	☐	☒	☐

Implementing the HMP Addendum would enhance existing recreational facilities. The impacts thereof are addressed throughout this document. No expansion of recreational facilities not analyzed in this document would occur.

3.16 TRANSPORTATION/TRAFFIC. Would the project:

a. Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

☐	☐	☐	☐	☐	☒	☐

A Traffic Impact Study (TIS) was prepared for the project by Linscott, Law, and Greenspan Engineers (LLG) in March of 2009. This TIS is included as Appendix D of this document. As identified in the TIS, build-out of the HMP Addendum is expected to generate the following amount of trips:

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

- Weekday: 336 daily trips, including 84 during the a.m. peak hour and 79 during the p.m. peak hour; and

- Weekend: 490 daily trips, including 160 during the mid-day peak hour.

In accordance with the Pasadena Department of Transportation's (PasDOT's) *Transportation Impact Review Current Practice and Guidelines* (PasDOT's Guidelines)[15], the project's TIS evaluated the contribution of these trips to the following two street segment locations:

1. Highland Drive east of Berkshire Avenue.
2. Linda Vista Avenue east of Highland Drive

As shown in the TIS, the Annex's trips would increase the average daily traffic (ADT) volume on the Highland Drive segment by 0.6% (from 2,465 to 2,481 trips) during the week and by 1.5% (from 1,597 to 1,621 trips) during the weekend. On the Linda Vista Avenue segment, the Annex's trips would increase the ADT volume by 0.5% (from 3,404 to 3,420 trips) and by 0.9% (from 2,779 to 2,803 trips) during the weekend.

Pursuant to the PasDOT's Guidelines, a significant impact occurs when a project increases ADT volumes on a street segment by 5.0% or more. Therefore, build-out of the HMP Addendum would not significantly impact the traffic load and capacity of the street system.

b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways? ( )

☐	☐	☐	☐	☐	☒	☐

The Los Angeles County Metropolitan Transportation Authority (MTA) adopted their most recent Congestion Management Program (CMP) in 2004. This CMP identifies level of service (LOS) E or better as acceptable for the designated CMP highway and road system. The CMP further states, "a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C [volume to capacity ratio] = 0.02), causing LOS F (V/C > 1.00). If the facility is already at LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C = 0.02)."

In addition to CMP thresholds, the City's *Transportation Impact Review Current Practice and Guidelines* states that a project's impact is significant if it causes any of the V/C changes shown in Table 3.16.1.

[15] Pasadena, City of, Department of Transportation. *Transportation Impact Review Current Practice and Guidelines*. August 2005.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

Table 3.16.1
City of Pasadena
Intersection Impact Significance Thresholds

Current Intersection Capacity Analysis (ICU)	Change Due to Project (Volume to Capacity Ratio [v/c])
A	0.060
B	0.050
C	0.040
D	0.030
E	0.020
F	0.010

Source: City of Pasadena, Transportation Impact Review Current Practice and Guidelines

The HMP Addendum TIS evaluated the project's potential impacts on the following 9 intersections:

1. Gould Avenue/Foothill Boulevard
2. Crown Avenue - I-210 Freeway Northbound (NB) Off-Ramp/Foothill Boulevard
3. I-210 Freeway Southbound (SB) On/Off Ramps/Berkshire Place
4. I-210 Freeway NB On/Off Ramps/Berkshire Place
5. Oak Grove Drive/Foothill Boulevard
6. Oak Grove Drive/Berkshire Place
7. Linda Vista Avenue/Oak Grove Drive
8. Highland Drive-Linda Vista Avenue/Highland Drive
9. Windsor Avenue/Oak Grove Drive-Woodbury Road.

The proposed Master Plan did not meet the criteria that require investigations of CMP intersections or CMP freeway locations[16] and, as such, none of the investigated intersections are CMP intersections.

To determine the proposed Master Plan Amendment's impacts on these intersections, the LOS of the nine investigated intersections were evaluated under the following scenarios for both weekdays and weekends:

- Existing Conditions—Year 2009;
- Future Pre-Project Conditions—Year 2014 plus ambient growth plus cumulative projects; and

[16] The CMP Traffic Impact Assessment TIA Guidelines require CMP intersection monitoring locations to be examined if the proposed project will add 50 or more trips during either the AM or PM weekday peak periods, and freeway monitoring locations to be examined if the proposed project will add 150 or more trips (in either direction) during either the AM or PM weekday peak periods. The proposed project would neither add 50 or more trips during the AM or PM peak hours at any CMP monitoring intersections, nor 150 or more trips (in either direction), during either the AM or PM weekday peak hours to any freeway segments.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

- HMP Addendum Build-Out Conditions—Year 2014 plus ambient growth plus cumulative projects plus project.

Table 3.16.2 identifies the LOS and V/C ratios for these scenarios, and identifies the change in V/C that would be caused by build-out of the proposed HMP Addendum. As shown in this table, build-out of the HMP Addendum would not cause any of the City's LOS significance thresholds to be exceeded. Therefore, the HMP Addendum would not cause any significant LOS impacts.

Table 3.16.2
Volume to Capacity Ratios and Level of Service Analysis

	Intersection	Existing Conditions		Pre-Project Conditions (2014)		HMP Addendum Build-Out Conditions		V/C Change	Significant Impact?
		V/C	LOS	V/C	LOS	V/C	LOS		
1	Gould Avenue/ Foothill Boulevard								
	Weekday AM	0.632	B	0.672	B	0.678	B	0.006	No
	Weekday PM	0.674	B	0.720	C	0.732	C	0.012	No
	Weekend Mid-day	0.589	A	0.635	B	0.644	B	0.009	No
2	Crown Avenue - I-210 NB Off-Ramp/ Foothill Boulevard								
	Weekday AM	0.618	B	0.660	B	0.671	B	0.011	No
	Weekday PM	0.616	B	0.674	B	0.683	B	0.009	No
	Weekend Mid-day	0.457	A	0.509	A	0.520	A	0.011	No
3	I-210 SB On/Off Ramps/ Berkshire Place								
	Weekday AM	0.561	A	0.595	A	0.597	A	0.002	No
	Weekday PM	0.431	A	0.459	A	0.469	A	0.010	No
	Weekend Mid-day	0.242	A	0.256	A	0.266	A	0.010	No
4	I-210 NB On/Off Ramps/ Berkshire Place								
	Weekday AM	0.746	C	0.795	C	0.805	D	0.010	No
	Weekday PM	0.521	A	0.554	A	0.554	A	0.000	No
	Weekend Mid-day	0.235	A	0.271	A	0.292	A	0.021	No
5	Oak Grove Drive/ Foothill Boulevard								
	Weekday AM	0.672	B	0.717	C	0.733	C	0.016	No
	Weekday PM	0.693	B	0.763	C	0.788	C	0.025	No
	Weekend Mid-day	0.356	A	0.404	A	0.427	A	0.023	No
6	Oak Grove Drive/ Berkshire Place								
	Weekday AM	0.706	C	0.753	C	0.760	C	0.007	No
	Weekday PM	0.644	B	0.689	B	0.701	C	0.012	No
	Weekend Mid-day	0.287	A	0.325	A	0.345	A	0.020	No
7	Linda Vista Avenue/ Oak Grove Drive								
	Weekday AM	0.307	A	0.323	A	0.325	A	0.002	No
	Weekday PM	0.253	A	0.280	A	0.285	A	0.005	No
	Weekend Mid-day	0.197	A	0.224	A	0.231	A	0.007	No

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

Table 3.16.2
Volume to Capacity Ratios and Level of Service Analysis

		Existing Conditions		Pre-Project Conditions (2014)		HMP Addendum Build-Out Conditions			
8	Highland Drive-Linda Vista Avenue/ Highland Drive								
	Weekday AM	0.283	A	0.297	A	0.300	A	0.003	No
	Weekday PM	0.226	A	0.246	A	0.249	A	0.003	No
	Weekend Mid-day	0.190	A	0.209	A	0.216	A	0.007	No
9	Windsor Avenue/ Oak Grove Drive-Woodbury Road								
	Weekday AM	0.753	C	0.803	D	0.806	D	0.003	No
	Weekday PM	0.639	B	0.705	C	0.708	C	0.003	No
	Weekend Mid-day	0.447	A	0.504	A	0.510	A	0.006	No

Source: LLG. Traffic Impact Study, HWP Annex Project

c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

☐	☐	☐	☐	☐	☐	☒

The Hahamongna Annex site is not within an airport land use plan or within two miles of a public airport or public use airport. Consequently, the proposed project would not affect any airport facilities and would not cause a change in the directional patterns of aircraft. Therefore, the proposed project would have no impact on air traffic patterns.

d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

☐	☐	☐	☐	☐	☒	☐

The Hahamongna Annex site currently includes an internal roadway network that takes access from the Oak Grove Drive/Foothill Boulevard intersection. The proposed HMP Addendum would utilize this existing internal roadway network for vehicular circulation and would supplement the existing roadways with new/improved drive aisles to access the various proposed park components. There are no hazardous design features or incompatible uses included in the proposed circulation plan. Therefore, the proposed Master Plan Amendment would not cause any significant impacts related to traffic hazards.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

e. Result in inadequate emergency access?

☐	☐	☐	☐	☒	☐	☐

The HMP Addendum would not result in the elimination of a through-route or the narrowing of any roadways. Under the proposed Plan, the Annex site would continue to utilize the existing site entrance at the intersection of Oak Grove Drive and Foothill Boulevard, and the site's internal circulation would be improved with new all-weather surface material and additional access routes. In addition, to improve emergency access and maneuverability on the Annex site, the HMP Addendum calls for the elimination of the main gate at the current primary entrance to the public equestrian area. To ensure implementation of the proposed HMP Addendum would not negatively impact emergency access, the mitigation measures from the Arroyo Seco Master EIR identified below will be followed. With the incorporation of these measures, the proposed HMP Addendum would clearly have no significant negative impact on emergency access.

Applicable Mitigation Measures from the Arroyo Seco Master Plan Master EIR:

☒ Measure Public Services – 1: The short-term construction impacts related to the developments and improvements delineated in the proposed project are self-mitigating. However, temporary emergency response and evacuation plans shall be established in concert with construction schedules and be provided to fire, police, and park security services.

☒ Measure Public Services – 4: Emergency response and evacuation plans shall be established for the Hahamongna Watershed Park, Central Arroyo Seco, and Lower Arroyo Seco Master Plan areas in accordance with the City of Pasadena Fire Department, Police Department, and Department of Public Works and Transportation.

☒ Measure Public Services – 5: Ingress, egress, bridges, and roadways constructed or improved as implemented by the proposed project shall be designed in compliance with Pasadena Fire Department access requirements.

f. Result in inadequate parking capacity?

☐	☐	☐	☐	☐	☒	☐

The Plan's TIS evaluated the parking demand of build-out of the proposed HMP Addendum. The total parking demand at the Annex site was determined based on the sum of the existing parking demand plus the predicted increase in parking demand that would be caused by build-out of the proposed HMP Addendum. The TIS concludes:

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

- The maximum weekday parking demand on the Annex site during normal operation is anticipated to be 132 spaces—existing parking demand of 25 spaces plus an increased parking demand of 107 spaces upon build-out of the HMP Addendum;

- The maximum weekend parking demand on the Annex site during normal operation is anticipated to 140 spaces—existing parking demand of 25 spaces plus an increased parking demand of 115 spaces upon build-out of the HMP Addendum; and

- The maximum weekend parking demand on the Annex site during a special event is anticipated to be 237 spaces.

As shown in Exhibit 2.8, a total supply of 127 parking spaces is currently provided at the Annex site. The majority of these spaces are currently not accessible to existing HWP users, as they lie within the gated area previously occupied by the US Forest Service. Further, general observations conducted at the site indicate that portions of the available parking areas (i.e., those parking areas provided outside of the gated areas) are currently under-utilized during typical weekdays and weekend days.

As further shown in Exhibit 2.8, the HMP Addendum proposes a total supply of 175 spaces on the Annex site, not including the City-owned JPL west parking lot just northeast of the Annex site, which includes 214 spaces. Based on a comparison of the proposed parking supply (i.e., 175 spaces) and the forecast total parking demand, it is concluded that the proposed parking supply within the Annex site would accommodate the peak parking demand during normal operation on both weekdays and weekend days. However, the proposed parking supply (i.e., 175 spaces) would not accommodate the anticipated parking demand during special events at the Annex site.

Special events at the Annex site, such as equestrian competitions, currently occur throughout the year on both weekdays and weekends. Under the proposed Amended Master Plan, special events would continue to be allowed on the Annex site upon attainment of a permit from the City of Pasadena. As specified in the HMP Addendum, special event permits would be issued on an event-by-event basis, and parking for such events would be monitored pursuant to the following HMP Addendum Recommendation:

> Events and programs planned at the annex area shall be monitored by the city's park permitting process such that the anticipated parking demand generated by any event or simultaneous activities held at the annex facilities would not exceed the proposed parking supply unless sufficient off-site parking is identified and secured; OR unless the event/program planned demonstrates a management plan for their event that will be aimed at decreasing the number of vehicular trips generated by increasing the use of alternative transportation modes (transit, rail, walking, bicycling, carpooling etc.)

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

As specified in this Recommendation, permits for special events would not be issued unless the event coordinator/applicant has identified and secured sufficient off-site parking. Sufficient off-site parking may include, but is not limited to, available parking in other portions of the HWP, as well parking lots elsewhere in the City when the appropriate shuttle service is provided. Examples of such lots include existing nearby lots that are outside of the Annex site but within the overall Hahamongna Watershed Park. The off-site HWP lots within a reasonable walking distance of the Annex currently contain 321 spaces and are planed for up to 492 spaces (see Exhibit 2.8).[17] While some of these spaces would be occupied by users of park amenities outside of the Annex, some spaces in these lots is expected to be available for patrons of the Annex site. Due to the special event permit requirements included in the Amended Master Plan, the proposed HMP Addendum would not cause any significant parking impacts.

g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?

☐	☐	☐	☐	☐	☐	☒

The proposed Master Plan Addendum does not conflict with any policies, plans, or programs supporting alternative transportation. Conversely, the proposed HMP Addendum includes alternative transportation improvements, including establishing a bus drop-off and parking area (in addition to two such areas that are currently included in the existing HMP) and constructing a universally-accessible connection to the future public transit stop on Oak Grove Drive.

3.17 UTILITIES AND SERVICE SYSTEMS. Would the project:

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? AND/OR

☐	☐	☐	☐	☐	☒	☐

e. Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

☐	☐	☐	☐	☐	☒	☐

[17] The walking distance considered "reasonable" for parking purposes was 2,800 ft (½ mile) from the proposed Environmental Education Center. As a result, the JPL east lot and the equestrian picnic area were not considered to be within a reasonable walking distance, as they are 4,100 ft and 3,800 ft from the proposed Environmental Education Center, respectively. However, these lots could be specified for use under the current recommendation in the draft HWP Master Plan Addendum, when an Annex reservation applicant would be required to demonstrate a parking plan to use these lots as off-site parking.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

Wastewater service in the project area is provided jointly by the City of Pasadena and the Sanitation Districts of Los Angeles County. The City maintains local sewer lines, which drain into regional sewer lines maintained by the Sanitation District. Wastewater generated in Pasadena is treated at either the Whittier Narrows Water Reclamation Plan (WRP) or the Los Coyotes WRP, which are both operated by the Sanitation District. The Whittier Narrows WRP processes an average flow of 7.6 million gallons/day (mgd) and has a design capacity of approximately 15 mgd, while the Los Coyotes WRP currently processes an average flow of 31.8 mgd with a design capacity of approximately 37.5 mgd.

As indicated in the original HWP Master Plan, the only major sewer system running near HWP is the Oak Grove Drive sewer main. Within the Annex site, all of the restrooms in the former U.S. Forest Service compound are connected by a gravity sewer system. Sewage is then collected at a sewage lift station and pumped through a force main and discharged into the nearby Oak Grove sewer main. In the equestrian area, where Rose Bowl Riders and Tom Sawyer Camp are tenants, the restrooms have septic systems.

Implementation of the proposed HMP Addendum would lead to the following uses/resuses, which would generate wastewater:

- Reuse of the abandoned U.S. Forest Service Station as an environmental education center with conference facilities. This proposed facility includes a main office/education building, three classroom buildings, and a mess hall, all of which are currently, and would continue to be, connected to the sanitary sewer system.

- Reuse of the existing U.S. Forest Service residential unit onsite as a residence for the park ranger/facilities manager. This unit is connected to the sanitary sewer system.

- Continued use of the equestrian clubhouse after extensive rehabilitation or reconstruction. The existing clubhouse is currently served by a septic tank; however, is planned to be connected to the sanitary sewer system. Likewise, if the clubhouse is reconstructed, the new clubhouse would be connected to the sanitary sewer system.

- Continued use of the existing mobile home unit after the unit is relocated and extensively rehabilitated or reconstructed to meet code or replaced. The existing mobile home unit is currently served by a septic tank; however, is planned to be connected to the sanitary sewer system.

- Continued use of the restrooms in the existing metal storage buildings. These restrooms have independent septic tanks that will be decommissioned per City code and the restrooms connected to the existing sanitary sewer system.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

- Construction of a new office with restroom for the Adaptive/Therapeutic Equestrian area. This structure would be connected to the sanitary sewer system.

- Construction of a new public restroom to serve the environmental education center and equestrian facilities. This restroom would be connected to the sanitary sewer system.

As shown in Table 3.17.1, implementation of the proposed HMP Addendum is expected to generate 5,761 gallons per day (gpd) of wastewater. All of the wastewater anticipated to be generated onsite would be domestic sewage. Domestic sewage meets the RWQCB's NPDES requirements for wastewater and can be treated at both the Whittier Narrows and Los Coyotes WRPs. Similarly, the volume of wastewater generated by the proposed HMP Addendum is well within the treatment capacity of the WRPs. Therefore, the proposed HMP Addendum would cause no significant impacts related to wastewater.

Table 3.17.1
Wastewater Generation

Use	Size	Daily Wastewater Generation Rate*	Daily Wastewater Generation (gal)
Environmental Education Center	188 students	20 gal/student	3760
Park Ranger/Facilities Manager Residence	1 unit	200 gal/unit	200
Equestrian Center Clubhouse	1610 ft²	200 gal/1000 ft² **	322
Equestrian Camp Mobile Home	1 unit	200 gal/unit	200
Storage Buildings with Restrooms (2)	3168 ft²	25 gal/1000 ft²	79
Adaptive/Therapeutic Equestrian Office	1000 ft² (estimated)	200 gal/1000 ft²	200
Public Restroom	10 fixtures (estimated)	100 gal/fixture***	1000
Total			5761 gal/day

* Wastewater generation rates sourced from PMC § 4.53.030
** Wastewater generation estimated based on expected intensity of operation
*** Wastewater generation rate for the public restroom is sourced from the City of Los Angeles, *L.A. CEQA Thresholds Guide*, Land Use - "Comfort Station: Public"

b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

☐	☐	☐	☐	☐	☐	☒

As discussed in sections 3.17(a)(e) and 3.17(d) the proposed HMP Addendum would increase the demand for water and wastewater service. However, the resulting increase in water/wastewater service demand is negligible in comparison to the existing service areas of the water and wastewater service purveyors. In addition, the facilities currently maintained by the service purveyors are adequate to serve the proposed increase in demand. Therefore, the proposed project would not require or result in the construction or expansion of new water or wastewater treatment facilities off-site, and the project would have no associated impacts.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

☐	☐	☐	☐	☐	☒	☐

As discussed in sections 2.4.4 and 3.9, the HMP Addendum includes storm water drainage improvements that are intended to control runoff, eliminate localized ponding of stormwater, and improve water quality. Examples include establishing bioswales and regrading to direct stormwater flows away from unstabilized soil to bioswales and other conveyances. The potential environmental effects of these drainage improvements are discussed within this IS. The proposed HMP Addendum would not require or result in the construction or expansion of any other storm water drainage facilities.

d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

☐	☐	☐	☐	☐	☒	☐

PWP currently provides water to the existing uses onsite and would provide water to all the uses anticipated in the HMP Addendum. The proposed HMP Addendum would result in an increase in water consumption over existing conditions (i.e., unoccupied USFS station); however, the site's anticipated water consumption would be similar to the site's consumption when the USFS station was in full operation. Based on the conservative assumption that water demand is 25% greater that wastewater generation, the structures included in the proposed HMP are anticipated to demand approximately 7,201 gpd of potable water. Additional water would be utilized on the site to dampen equestrian areas for dust suppression (an existing use), to water plants in the plant lab, and to establish landscaping. However, given the intention of the facility to be a model for green and sustainable technology, it is anticipated that the plant lab and other landscaping would have a limited water demand and would utilize alternative water sources when available. In addition, the proposed HMP Addendum is anticipated to reduce the amount of water used at the equestrian facility as a result of modernizing the facility and installing water meters.

In addition to supplying the Annex site, PWP provides water service to the City of Pasadena and a limited number of customers in adjacent unincorporated areas. On average, PWP serves 37,094 acre-feet per year (AFY) of potable water[18]. PWP's water sources include:

- Groundwater: PWP obtains approximately 40% of its annual water supply from groundwater in the Raymond Basin. PWP has an adjudicated right to withdraw 12,807 AFY from the Raymond Basin, with additional withdrawl rights provided on a year-to-year basis based on spreading

[18] Based on the average PWP total production over the last 10 years.

surface water diversions in the Arroyo Seco and Eaton Canyon. In total, in the average year, PWP has the right to pump about 16,935 AFY from the Raymond Basin. PWP is currently operating seven wells with a combined capacity of 15,200 AFY[19].

- Local Surface Water: PWP diverts surface water from the Arroyo Seco and Eaton Canyon to spreading basins that recharge the Raymond Basin. Hence, the additional pumping rights from the Basin noted above.

- Imported Water: PWP meets the balance of its customer's water demand (approximately 60% annually) with imported water from the Metropolitan Water District of Southern California (MWD), managed by the state Department of Water Resources (DWR). The MWD's water sources are the Colorado River Aqueduct and the State Water Project (SWP). Total annual MWD supplies range from a high of about 3.3 million acre feet (MAF) to a low of 1.9 MAF acre feet, depending on the year and the scenario (e.g., normal year vs. dry year).

PWP's groundwater and imported water sources have the potential to be reduced in the future. In May of 2008 the Raymond Basin Watermaster indicated that the safe yield of one subarea of the Raymond Basin – the Pasadena subarea – is 35% less than current decreed water rights. If the Watermaster subsequently reduces pumping allocations from the Pasadena subarea by 35%, PWP's total Raymond Basin pumping rights would be reduced from 12,807 AFY to 9,877 AFY (5,423 AF of which would be sourced from the Pasadena subarea).

Current challenges facing MWD's Colorado River supply include risk of continued drought in the Colorado River Basin and pending litigation that may threaten implementation of part or all of the River's Quantification Settlement Agreement (QSA)[20]. Despite the challenges of recent Colorado River Basin hydrology, MWD "does not anticipate adverse water supply impacts resulting from the implementation of [the] shortage guidelines because California's 4.4 million acre-foot apportionment has a higher priority than a portion of Arizona and Nevada's apportionments during shortage conditions."[21] Programs that will help to implement the QSA and meet Colorado River water supply targets, and that are currently in operation, close to completion, or in progress include: the Imperial Irrigation District (IID) and MWD water conservation and transfer program; the Coachella and All-American Canal lining projects; the IID and San Diego County Water Authority (SDCWA) water transfer; the Palo Verde Irrigation District land management and crop rotation program; and the Interim Surplus Guidelines adopted by the U.S. Secretary of the Interior. In addition, MET is participating in the Intentional Created Surplus program to store water in Lake Mead for withdrawal during dry years.

[19] Pasadena, City of. *Urban Water Management Plan.* 2005.
[20] The QSA for the Colorado River (October 2003) is an agreement between MET, the San Diego County Water Authority, the Coachella Valley Water District, the Imperial Irrigation District, the State of California, and the U.S. Department of the Interior for the use of California's allotment of 4.4 MAF per year of Colorado River water.
[21] Metropolitan Water District of Southern California. *2006 Integrated Water Resources Plan Implementation Report.* October 10, 2006.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

SWP supplies have been challenged through environmental litigation concerning the Sacramento-San Joaquin River Delta, which is used to transport SWP water to Southern California. In addition, MWD has acknowledged that conveyance of water through the Delta can present challenges for SWP supplies due to water quality and environmental issues that can affect pumping operations. Risks to this supply also include potential levee failure. Actions being taken by the State Department of Water Resources (DWR) and MWD to avoid or mitigate these risks include:

- Bay-Delta Conservation Plan (BDCP): To address concerns regarding the delta smelt Endangered Species Act (ESA) litigation, which will likely result in the reduction of water deliveries from the SWP, the MWD is one of the parties that are drafting the BDCP. The BDCP will provide state and federal ESA coverage for the SWP operations.

- Central Valley Storage and Transfer Programs: MWD is participating in voluntary Central Valley storage and transfer programs to bank MWD's SWP water supplies. This flexibility will assist MWD in addressing shortages due to drought or court-imposed cutbacks to protect Delta smelt.

- Conjunctive Use Programs: MWD has employed conjunctive use programs that utilize groundwater basins to store water during wet seasons, which provides a buffer supply that MWD can extract during dry periods.

- Water Surplus and Drought Management Plan (WSDM): In 1999, MWD incorporated the water shortage contingency analysis that is required as part of any urban water management plan into a separate, more detailed plan, called the WSDM. The WSDM "identifies the expected sequence of resource management actions that [MWD] will execute during surpluses and shortages to minimize the probability of severe shortages and eliminate the possibility of extreme shortages and shortages allocations."[22]

- Integrated Resources Plan (IRP): MWD's 2004 IRP identifies local water supply initiatives and establishes a buffer supply to mitigate against the risks associated with implementation of local and imported water supply programs.

- MWD continues to see challenges to supply related to the drought. In April of 2009, MWD announced reduced supplies delivered to its member public agencies, and increased rates for that supply with the goal of using the increased rate to fund conservation programs and development of alternative supply sources. The reduced supply is estimated to amount to about a 20 percent reduction in water usage for Southern California.[23] At the same time, DWR's most-recent snow survey of the winter season indicates snowpack water content statewide is 81 percent of normal, and as a result DWR increased the 2009 SWP delivery allocation to 30 percent. While this is an

[22] Metropolitan Water District of Southern California. *2005 Urban Water Management Plan.*
[23] http://www.mwdh2o.com/mwdh2o/pages/news/press_releases/2009-04/water%20allocation.pdf; see also http://www.mwdh2o.com/mwdh2o/pages/board/Bd.pdf

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

improvement from DWR's March allocation of 20 percent, drought conditions continue and DWR strongly urges continued conservation.[24]

In addition to these efforts, MWD programs to alleviate water supply concerns include local water production and water conservation. MWD has spent the past decade increasing the capacity of its reservoirs, and its overall water reserve is several times larger than it was during the 1991-1992 drought. MWD's expects that its planning framework will allow the MWD to adapt to changing conditions and ensure a reliable, diverse water supply to its members agencies that supply water to municipal customers.

In addition to MWD's efforts, the City of Pasadena has undertaken a variety of programs to conserve water. These programs include:

- Water Shortage Plan I: In response to the potential for PWP's groundwater and imported water supplies to be reduced (as described above), in December of 2007 the Pasadena City Council adopted Water Shortage Plan I pursuant to Pasadena Municipal Code § 13.10.040. In doing so, the City Council recognized that projected water supplies may not be sufficient to meet the future ordinary water requirements of PWPs customers. The Water Shortage Plan I directed all persons in Pasadena and all customers of PWP to adhere to nine voluntary water conservation measures.

- Water Waste Prohibition and Water Shortage Plan (WWP/WSP) Ordinance: In April of 2009, Pasadena's City Council adopted this Ordinance, which replaced the City's previously adopted Water Shortage Plan I. The WWP/WSP Ordinance includes a number of permanent water waste prohibitions as well as procedures that would be initiated in the event of a water shortage.

- Comprehensive Water Conservation Plan (CWCP): In April of 2009, Pasadena's City Council adopted a CWCP. As a long-term goal, the CWCP presupposes an initial target of reducing per-capita potable water consumption 10% by 2015 and 20% by 2020. Water conservation strategies included in this Plan include a modified rate structure; recommendations for sustainable water supply ordinances; incentives for and installation of water efficient technology and practices; water use audits; and water use education/outreach efforts.

Due to the (1) measures undertaken by both the MWD and City of Pasadena to conserve water and protect water supplies, and (2) the programs implemented by both MWD and PWP to improve the reliability of water delivery and ensure water supply is not interrupted due to drought or other events, PWP is expected to have sufficient water supplies to serve the Annex site from existing entitlements and resources. Therefore, the impact of the HMP Addendum on water supply is less than significant on an individual level and not considerable on the cumulative level.

[24] http://www.water.ca.gov/news/newsreleases/2009/041509allocationam.doc

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? AND/OR

☐	☐	☐	☐	☒	☐	☐

g. Comply with federal, state, and local statutes and regulations related to solid waste?

☐	☐	☐	☐	☒	☐	☐

The City of Pasadena is served primarily by Scholl Canyon landfill, which is permitted through 2025, and secondarily by Puente Hills landfill, which was repermitted in 2003 for 10 years. Solid waste generated onsite would include construction and demolition materials, municipal solid waste, and equestrian waste. The proposed HMP Addendum includes the following solid waste recommendations:

- All land uses within the annex shall adhere to the City's Green Action Plan.
- All uses within the annex shall demonstrate proof of an effective recycling program.
- Tenants shall coordinate with each other in the collection of solid waste, including horse manure. There shall be a centrally located communal horse waste disposal area, in keeping with best management practices for water quality.
- Tenants shall demonstrate collaboration with the Environmental Education Center and their partners, in recycling horse waste for small garden composting within the Annex, the greater HWP and other city park projects.

In addition, the construction and operation on the Annex site will follow Measures Utilities and Service Systems-2 and 3 identified in the Arroyo Seco Master EIR, as detailed below. Due to the solid waste recommendations included in the proposed HMP Addendum and compliance with Measures Utilities and Service Systems-2 and 3, the proposed HMP Addendum would not cause any significant impacts related to solid waste.

<u>Applicable Mitigation Measures from the Arroyo Seco Master Plan Master EIR:</u>

☒ Measure Utilities and Service Systems-2: Prior to completion of the plans and specifications, the City of Pasadena shall ensure that the plans and specifications clearly state that the construction contractor shall identify to the City of Pasadena Department of Public Works and Transportation and implement programs for minimizing solid waste generated during construction. These programs will include, at a minimum, recycling of asphalt and concrete paving materials, balance of graded soil on site to the maximum extent feasible, and site identification for any off-site cut or fill requirements including potentially significant impacts and mitigation measures.

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

☒ Measure Utilities and Service Systems-3: The City of Pasadena shall implement and maintain solid waste recycling programs within the Arroyo Seco following completion of construction activities to minimize the amount of solid waste generated through passive and active recreation use being diverted to landfills. Wherever trash receptacles are provided through the Arroyo Seco, a recycling receptacle for plastic, aluminum, and metal shall also be provided. Signage encouraging patrons to recycle shall be posted proximate to each recycling receptacle.

3.18 MANDATORY FINDINGS OF SIGNIFICANCE

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

☐	☐	☐	☐	☐	☒	☐

As discussed in sections 3.1 and 3.3 of this document, the proposed HMP Addendum would not cause any new substantial impacts on Aesthetic or Air Quality. Also, as discussed in section 3.4 and 3.9 of this document, the proposed HMP Addendum would not cause substantial impacts on special status species, stream habitat, and wildlife dispersal and migration. Furthermore, the proposed HMP Addendum would not affect the local, regional, or national populations or ranges of any plant or animal species and would not threaten any plant communities. Similarly, as discussed in section 3.5 of this document, the proposed HMP Addendum would not have substantial impacts on historical, archaeological, or paleontological resources and, thus, would not eliminate any important examples of California history or prehistory. Finally, as discussed in Sections 3.9, 3.11, and 3.12 of this document, the proposed HMP Addendum would not cause substantial impacts on water quality, mineral resources or noise. Therefore, the HMP Addendum would not substantially degrade the quality of the environment, including land, air, water, minerals, flora, fauna, noise and objects of historic or aesthetic significance.

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future project)?

☐	☐	☐	☐	☐	☒	☐

The proposed HMP Addendum would not result in impacts that are cumulatively considerable. The project has the potential to contribute to cumulative air quality, biological resource, hydrology, water quality, noise, public services, recreation, traffic, and utility impacts. However, none of these

Does the Project Require Subsequent CEQA Documentation?						
Yes				No		
New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent	No Additional Significant Impact/Less than Significant with Application of Mitigation from Existing MEIR	Less than Significant Impact	No Impact/No Additional Impact

cumulative impacts are significant, except for cumulative air quality conditions (i.e. the SCAB is a non-attainment basin) and the HMP Addendum would not cause any cumulative impacts to become significant. Section 3.17.d of this document specifically discusses the HMP Addendum's contribution to cumulative water supply impacts, which was found to be not considerable. Similarly, section 3.3 of this document specifically discusses the HMP Addendum's contribution to cumulative air quality conditions. As identified in this section, while the contribution of the HMP Addendum's individual construction emissions to the cumulative air quality scenario is not considerable, the Arroyo Seco Master Plan's overall construction emissions are identified as a considerable contribution to the cumulative air quality scenario. As a result, the City adopted a Statement of Overriding Conditions in connection with the Arroyo Seco Master EIR and deemed short-term construction-related impacts "acceptable" (State CEQA Guidelines § 15093(a)). As concluded in section 3.3, the proposed HMP Addendum would cause no additional significant impact on the environment pursuant to CEQA § 21166 related to construction air pollution.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

☐	☐	☐	☐	☐	☒	☐

As discussed in sections 3.3, 3.8, 3.9, 3.12, and 3.16 of this document, the proposed HMP Addendum would not expose persons to the hazards of toxic air emissions, chemical or explosive materials, flooding, noise, or transportation hazards. Section 3.7 of this document explains that although patrons of the proposed facility would be exposed to typical southern California earthquake hazards, modern engineering practices would ensure that geologic and seismic conditions would not directly cause substantial adverse effects on humans. In addition, as discussed in sections 3.1 Aesthetics, 3.10 Land Use and Planning, 3.13 Population and Housing, 3.14 Public Services, 3.15 Recreation, 3.16 Transportation/Traffic, and 3.17 Utilities and Service Systems, the HMP Addendum would not indirectly cause substantial adverse effects on humans. Therefore, the proposed project would not have a Mandatory Finding of Significance due to environmental effects that could cause substantial adverse effects on humans.

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4.0 FOCUSED ANALYSIS OF BIKEWAYS AND TRAILS

The potential bikeway and trail components of the project have garnered substantial public interest. Various general inquiries and public interest was exhibited at several public meetings conducted for the project. In addition, during a meeting between City staff, the City Manager, Friends of the Hahamongna, and the Linda Vista Annandale Association on June 4, 2009, additional detail was requested regarding the physical changes that would result from the potential bikeway and pedestrian/equestrian trail and the northern property boundary.

As a result of public interest and in response to the meeting held on June 4, 2009, this chapter of the Initial Study has been included to provide the public and decision makers with addition details about all of the bikeways and trails considered during the Master Plan Addendum process and their potential environmental impacts.

4.1 CHARACTERISTICS OF THE BIKEWAY AND TRAIL ALONG THE NORTHERN PROPERTY BOUNDARY

As part of the proposed HMP Addendum, the City is considering a bikeway and (potentially) an adjacent but separate equestrian/pedestrian trail. The bikeway and trail would traverse the site from the southwest corner to the northeast corner (see item D on Exhibit 2.5, Exhibit 4.1, and item #1 on Exhibit 4.2). The alignment for this bikeway would follow the site's main access road from the southwest corner of the site to the road's terminus at the entrance to the equestrian facility (referred to hereafter as the "western segment"). The existing natural surface trail along this driveway would be maintained for equestrian and pedestrian use. From the terminus of the existing access road, the bikeway would extend eastward to the northeast corner of the site (referred to hereafter as the "eastern segment"), where it connects to the existing/planned bicycle route identified in the Hahamongna Watershed Park Master Plan. Parallel to and along the south side of the eastern segment of the bikeway, a pedestrian/equestrian trail has been considered.

The western segment of the pedestrian/equestrian trail would utilize the existing natural surface trail that is separated from the main access road as a two-directional, 4-8-ft wide (approximate) surface for equestrian and pedestrian uses. In this segment the proposed bikeway would be located on the main access road.

The eastern segment of the bikeway and trail would be new/reconfigured alignments that are approximately 800 ft in length (see Figure 4.1). In this location, the bikeway would consist of a 10-ft (maximum) wide surface capable of supporting two-directional bicycle travel. The potential trail would be a separate, natural surface, two-directional, equestrian/pedestrian trail that would be approximately 4-8 feet it width.

Due to their meandering alignments, the eastern segments of the bikeway and trail would not encroach into the existing large riding ring (item 21 on Exhibit 2.3,) the oval teaching arena (item 19 on Exhibit 2.3), or the existing jumping area (item 16 on Exhibit 2.3). . The only existing equestrian

facility that would be displaced/relocated by the proposed trail would be the existing barn that is adjacent to the oval teaching arena (item 20 on Exhibit 2.3). It is important to note that there are ample opportunities on the Annex site to relocate or replace this barn, along with other equestrian facilities to maintain/improve the functional value of the site's equestrian facilities.

The eastern segment of the bikeway/trail would also require realigning/replacing 775 linear feet of existing chain link fence along the north side of equestrian facility. This fence would be realigned to separate the proposed bikeway from the equestrian facility and would be replaced with "no-climb" fencing. The replacement fence would extend from the proposed terminus of the main park access road to the northeast corner of the Annex site.

Public comment on the bikeway and trail included a suggestion to remove the separation of bikes from equestrian/pedestrian uses. That suggestion would conflict with the Hahamongna Master Plan, and with numerous public requests and comments to the contrary that were made during the time that the Hahamongna Master Plan was being developed. These public comments are summarized in Section 2 of the HWP Master Plan in the subsection *Summation of Comments from the Hahamongna Watershed Park Community Meetings*. Public comments noted in this subsection include:

- Keep bicycles and horses separate (pg. 2-63);
- Loop/perimeter trail for hikers and horses is essential. No bikes on trails with horses and hikers. Bikes hit horses/hikers. Keep bikes separate (pg. 2-63); and
- Enforce a "no bicycles on horse trails" ordinance in the basin (pg. 2-64).

Consistent with these public comments, both the HWP Master Plan and the Arroyo Seco Design Guidelines specify that bicycle use shall be separate from other trail uses[1]. Specifically, the description of *Bicycle Route* in Section 3 of the HWP Master Plan (pg. 3-47) states, "Bicycles will *not* be allowed on any designated trail or unpaved surfaces within the park nor on the existing JPL bridge crossing." Likewise, bullet "2" of Section 8.3.3 *Bikeways and Bike Paths* of the Arroyo Seco Design Guidelines (pg. 8-7) states, "Bicycle roadways shall be separated from other slower moving nonmotorized routes with a physical barrier."

In summary, removing the bikeway separation from the proposed HMP Addendum would (1) conflict with the *Bicycle Route* description in the HWP Master plan; (2) conflict with the adopted Arroyo Seco Design Guidelines; (3) conflict with multiple public comments received during the preparation of the HWP Master Plan; and (4) raise public safety concerns. Accordingly, that suggestion is rejected.

[1] The HWP Master Plan includes two exceptions to the separation requirement for bikeways from other trail uses – on bridge structures (i.e., the Flint Wash Bridge and potential future Arroyo Seco Perimeter Trail Bridge) and atop of the Devil's Gate Dam structure. The Master Plan allows unseparated bicycle use of these facilities due to the physical constraints of these structures. Regardless, for surface trails (as proposed in the HMP Addendum), the HWP Master Plan and Arroyo Seco Design Guidelines clearly requires separation of bicycle uses.

Exhibit 4.1 Draft Alignments for the Bikeway and Trail Along the Northern Property Boundary

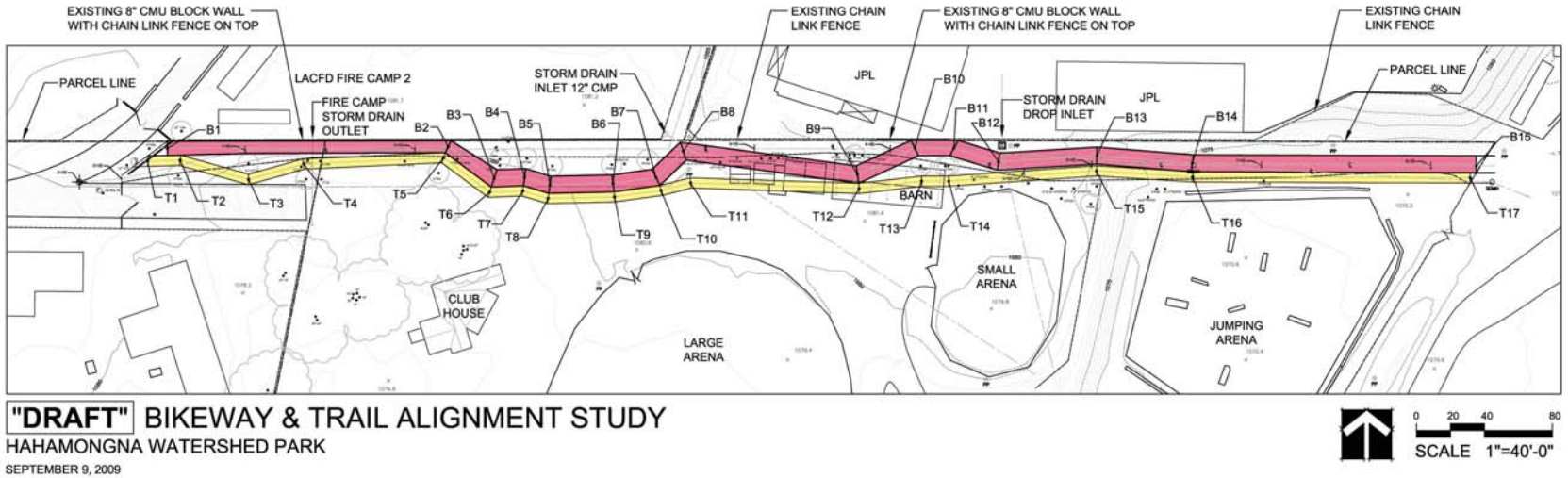

Exhibit 4.2 Bikeways and Trails Considered During the Master Plan Addendum Process

4.2 CHARACTERISTICS OF OTHER EXISTING TRAILS AND PROPOSED TRAIL IMPROVEMENTS

As shown in Figure 4.2, the following pedestrian/equestrian trails currently exist on the Annex site:

- Main access road trail: This existing natural surface trail connects existing trails on the south side of the Annex site to existing trails to the north and east of the Annex site. The western segment trail parallels the site's main access road, traveling from the southwest corner of the Annex site to the road's terminus at the entrance to the existing equestrian facility. The eastern segment of the trail extends from the road's terminus along the northern boundary of the existing equestrian facility to the northeast corner of the site.

- Oak woodland trails: Two natural surface trails extend southward from the southern boundary of the former U.S. Forest Service Camp into the oak woodland area where the trails merge and continue south into other portions of the Hahamongna Watershed Park.

- A short, north-south trending, trail exists at the rear (east) of the metal buildings in the eastern portion of the former U.S. Forest Service Camp. This trail connects the existing main riding with other onsite equestrian facilities to the south.

- Perimeter Trail: The Perimeter Trail, as identified in the existing HWP Master Plan, circumnavigates the entire Hahamongna Watershed Park. The western segment of the Perimeter Trail extends northward from the Flint Wash Bridge, follows the eastern boundary of the Annex site, and ultimately connects to trails on the east side of the JPL campus.

The proposed HMP Addendum recommends maintaining all of these existing trails, except for the eastern segment of the main access road trail, which would either be replaced (see subsection 4.1, above) or eliminated in lieu of other trail improvements on the Annex site.

As shown in Figure 4.2, the proposed HMP Addendum recommends the following new onsite trails/trail improvements:

- Horse boarding/youth camp loop trail: The proposed HMP Addendum recommends improving/formalizing an internal loop trail that circles the proposed horse boarding and youth camp areas. The existing trail along the rear (east) side of the metal sheds that were formerly part of the U.S. Forest Camp would become a segment of this trail. The balance of this trail would traverse though existing open/clear areas within the equestrian portion of the site. No grading or vegetation removal would be required to establish this trail.

- Oak woodland/Perimeter Trail link: The proposed HMP Addendum recommends establishing a trail along the southern boundary of the Annex site that would connect the existing trails in the oak woodland in the southwestern portion of the site to the Perimeter Trail in the southeastern portion of the site. This proposed trail would follow the alignment currently occupied by the site's southern fence, which is recommended for removal. No grading or vegetation removal would be required to establish this trail, other than to fill in holes (e.g., fencepost holes), as needed.

4.3 CHARACTERISTICS OF THE SUGGESTED PERIMETER TRAIL BIKEWAY

The existing HWP Master Plan depicts a "Perimeter Trail" that extends northward from the Flint Wash Bridge, through the eastern edge of the Annex site, and ultimately connects to trails on the east side of the JPL campus. The existing HWP Master Plan designates the Perimeter Trail as a 12-ft wide, non-bicycle, multi-use trail. Due to historical equestrian use of the area, most of the Perimeter Trail has been informally improved (i.e., carved out) over time. The HWP Master Plan calls for formal improvements to segments of this trail and restoring the habitat on both sites of the trail, which has been largely denuded. The HWP Master Plan, however, does not include the improvements that would be necessary to make the Perimeter Trail available for bicycle use.

Rather than installing a bikeway along the northern property boundary, members of the public have suggested amending the HWP Master Plan to accommodate bicycles on or adjacent to the existing/planned Perimeter Trial. To safely accommodate bicycles, a separate bikeway would need to be constructed adjacent to the non-bicycle Perimeter Trail. Like the bikeway included in the proposed HMP Addendum, a bikeway along the Perimeter Trail would need to be a minimum of 10 ft in width in addition to the existing/planned 12-ft trail. This suggested bikeway would be 1,800 ft in length, resulting in at least 18,000 ft^2 of new bikeway surface. In comparison, the separate bikeway included in the proposed HMP Addendum would be 800 ft in length, resulting in 8,000 ft^2 of new bikeway surface[2].

4.4 CHARACTERISTICS OF THE SUGESSTED SUB TRAIL OPTIONS 1 AND 2

Rather than replacing the pedestrian/equestrian trail along the northern boundary of the Equestrian Center (see the discussion of the "eastern segment" in subsection 4.1, above), members of the public have suggested installing stub trails in other portions of the Annex site to provide connections between the Equestrian Center and the Perimeter Trail. Figure 4.2 depicts the suggested sub trail options, which are further described as follows:

- Sub-Trail Option 1: As suggested, Sub Option 1 would be a north-south trail along the eastern boundary of the Environmental Education Center. This trail would extend southward from the southern end of the proposed parking lot adjacent to the Equestrian Center Clubhouse; travel along a group picking area and parking lot; and connect to the existing trails within the oak woodland in the southwest portion of the site. No vegetation removal would be required to establish this trail and only a minor amount of grading would be required to prepare the site for the trail.

- Sub-Trail Option 2: As suggested, Sub Option 2 would originate at the southeast corner of the main area pad, travel southward past the youth camp wranglers residence, turn eastward and travel through horse boarding and habitat restoration areas, and connect to the Perimeter Trail.

[2] In addition to the 800 linear ft of new bikeway, the proposed HMP Addendum includes extending the bikeway on the existing main access road (i.e., the western segment). However, since the existing access road would be utilized, the western segment would not require installing a new surface for the bikeway.

This trail stub would require installing up to 550 linear feet of fencing to provide security for horse boarding areas and other equestrian facilities. In addition to site preparation, this trail would require a minimal to moderate amount of grading to allow the trail to traverse the existing slope on the west side of the boarding area. No vegetation removal would be required to establish this trail.

4.5 ENVIRONMENTAL EVALUATION OF BIKEWAYS AND TRAILS

The table below provides a focused environmental evaluation of the bikeway and trails considered during the Master Plan Addendum process.

Table 4.1 Focused Environmental Evaluation of the Bikeway and Trails Considered During the Master Plan Addendum Process					
Topic	**Bikeway and Trail Along the Northern Property Boundary**	**Suggested Perimeter Trail Bikeway**	**Other Trails Recommended in HMP Addendum**	**Sub-Trail Option 1**	**Sub-Trail Option 2**
Aesthetics	The bikeway and trail would not impact scenic vistas, would not change the views from a scenic roadway corridor, would not degrade the visual character or quality of the site, and would not generate any light or glare that could adversely affect views. The facilities consist of surface-level improvements and landscaping. The height and density of the proposed landscaping would be consistent with the existing onsite vegetation and would not obstruct any views. Likewise, the facilities would be aesthetically consistent with the park-like nature of the Annex site and surrounding area. The only light that is anticipated to be generated by the bikeway and trail would be bicycle headlamps and taillights. Therefore, the proposed bikeway and potential trail would not cause any significant aesthetic impacts.	The Perimeter Trail Bikeway would not impact scenic vistas, would not change the views from a scenic roadway corridor, would not degrade the visual character or quality of the site, and would not generate any light or glare that could adversely affect views. The Perimeter Trail Bikeway would involve surface-level improvements and, potentially, landscaping. The height and density of the landscaping could be designed to be consistent with the surrounding vegetation, which varies from scrub-level plants to tree-canopy vegetation. If landscaped properly, this Alignment would not obstruct any views. Likewise, the Perimeter Trail Bikeway would largely be aesthetically consistent with the park-like nature of the Annex site and surrounding area. The only light that is anticipated to be generated by the proposed Perimeter Trail Bikeway would be bicycle headlamps and taillights. Therefore, the proposed Perimeter Trail Bikeway would not cause any significant aesthetic impacts.	None of the other recommended trails would impact scenic vistas, change the views from a scenic roadway corridor, degrade the visual character or quality of the site, or generate any light or glare that could adversely affect views. These trail improvements consist of formalizing trails in existing vacant and denuded areas.	Sub Option 1 would not impact scenic vistas, would not change the views from a scenic roadway corridor, would not degrade the visual character or quality of the site, and would not generate any light or glare that could adversely affect views. This suggested improvement consists of formalizing a trail in existing vacant and denuded areas.	Sub Option 2 would not impact scenic vistas, would not change the views from a scenic roadway corridor, and would not generate any light or glare that could adversely affect views. This suggested improvement largely consists of formalizing a trail in existing vacant and denuded areas. However, this option requires installing security fencing, which would adversely affect the aesthetic character of the site. Due to the length of the required fencing (550 ft) in relation to the size and nature of the site, the resulting impacts on aesthetic character are considered less

Table 4.1
Focused Environmental Evaluation of the Bikeway and Trails Considered During the Master Plan Addendum Process

Topic	Bikeway and Trail Along the Northern Property Boundary	Suggested Perimeter Trail Bikeway	Other Trails Recommended in HMP Addendum	Sub-Trail Option 1	Sub-Trail Option 2
					than significant.
Agricultural Resources	The zoning for the Annex site does not contain any farmland designations, nor are any of the surrounding uses zoned or engaged in agricultural activities, nor does the site contain any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, the proposed bikeway and potential trail would have no impacts on agricultural resources.	The zoning for the Annex site does not contain any farmland designations, nor are any of the surrounding uses zoned or engaged in agricultural activities, nor does the site contain any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, the Perimeter Trail Bikeway would have no impacts on agricultural resources.	For the reasons noted in the cells to the left, none of the other recommended trail improvements would impact agricultural resources.	For the reasons noted in the cells to the left, Sub Option 1 would not impact agricultural resources.	For the reasons noted in the cells to the left, Sub Option 2 would not impact agricultural resources.
Air Quality	The proposed facilities would not conflict with the Air Quality Management Plan, would not violate an air quality standard, would not considerably contribute to an existing violation of an air quality standard, would not expose sensitive receptors to substantial pollutant concentrations, and would not create any objectionable odors. The only air pollutants that would be generated by the proposed facilities would be during construction. A minor amount of fugitive dust would be generated during grading and a minor amount of criteria pollutants would be emitted by construction equipment (i.e., tailpipe emissions). The volume of pollutants generated	The Perimeter Trail Bikeway would not conflict with the Air Quality Management Plan, would not violate an air quality standard, would not considerably contribute to an existing violation of an air quality standard, would not expose sensitive receptors to substantial pollutant concentrations, and would not create any objectionable odors. The air quality impacts of the Perimeter Trail Bikeway would be largely equal to those of the proposed bikeway and potential trail – construction phase fugitive dust and equipment tailpipe emissions. Like the proposed bikeway and potential trail, the volume of pollutants generated by the Perimeter Trail Bikeway would be	As the other recommended trail improvements consist of formalizing trails on existing vacant and denuded land, they would have no impact on air quality.	As Sub Option 1 consists of formalizing a trail on existing vacant and denuded land, it would have no impact on air quality.	The only component of Sub Option 2 that could generate air pollutants would be the minor amount of grading needed to carve a trail through the slope on the eastern border of the former U.S. Forest Service Camp. Such volume of air pollutants would be at least an order of magnitude less than the SCAQMD's significance

Table 4.1 Focused Environmental Evaluation of the Bikeway and Trails Considered During the Master Plan Addendum Process					
Topic	**Bikeway and Trail Along the Northern Property Boundary**	**Suggested Perimeter Trail Bikeway**	**Other Trails Recommended in HMP Addendum**	**Sub-Trail Option 1**	**Sub-Trail Option 2**
	would be at least an order of magnitude less than the SCAQMD's significance thresholds. The grading required to install the proposed facilities involves cut to align the proposed trail as far north as possible and spreading of this cut material to repair existing wear and tear, prepare the surface of the proposed bikeway, and soften the gradient from the upper level (west) to the lower level (east). If the entire 800-ft long bikeway and trail were graded at once, there would be approximately 0.5 acre of ground disturbance. For comparison, a 1-acre grading project is anticipated to generate 10 lbs/day of PM_{10} and 2.1 lbs/day of $PM_{2.5}$.[3] The fugitive dust emissions generated by even a full acre of simultaneous ground disturbance would be well below the SCAQMD significance thresholds. Therefore, the proposed bikeway and potential trail would not significantly impact air quality. See also Section 3.3.	at least an order of magnitude less than the SCAQMD's significance thresholds. The grading required to install the Perimeter Trail Bikeway would be on the same order as the grading required to install the proposed bikeway. The Perimeter Trail Bikeway would require surface preparation of approximately 0.41-0.91 acres (18,000 ft^2 to 39,600 ft^2)[4] to create the trail bed. For comparison, a 1-acre grading project is anticipated to generate 10 lbs/day of PM_{10} and 2.1 lbs/day of $PM_{2.5}$.[5] Thus, the fugitive dust emissions generated by full acre of simultaneous ground disturbance would be well below the SCAQMD significance thresholds. Therefore, the proposed Greenway would not significantly impact air quality. See also Section 3.3.			thresholds. As such, impacts are less than significant.
Biological Resources	The bikeway and trail alignments lie within mainly developed/disturbed land containing ruderal vegetation, landscaping, and trees. This area	The Perimeter Trail Bikeway lies within mainly disturbed land that has been denuded or contains ruderal vegetation. Parts of this alignment,	As the other recommended trail improvements consist of	As Sub Option 1 consists of formalizing a trail on existing vacant	The only component of Sub Option 2 that could impact biological

[3] Based on the emissions factors utilized by the URBEMIS model.

[4] 10 ft wide bikeway x 1,800 liner feet = 18,000 ft^2; or (10-ft wide bikeway + 12-ft wide equestrian/pedestrian trail) x 1,800 linear feet = 39,600 ft^2

Table 4.1
Focused Environmental Evaluation of the Bikeway and Trails Considered During the Master Plan Addendum Process

Topic	Bikeway and Trail Along the Northern Property Boundary	Suggested Perimeter Trail Bikeway	Other Trails Recommended in HMP Addendum	Sub-Trail Option 1	Sub-Trail Option 2
	does not contain any sensitive habitat, riparian habitat, wetlands, or habitat for special status species. Common species (such as California ground squirrels, coyotes [transient], western fence lizards, various birds, etc.) occur in this area. As is the case throughout the Annex site, any such species that are residents within the alignments could be disrupted during construction. However, construction impacts would be short-term and, after construction, the species would likely reinhabit the area. As such, construction impacts are considered less than significant. See also Section 3.4. Once installed, the use of the bikeway and equestrian/pedestrian trail could cause secondary impacts on wildlife, such as noise disruption and sporadic illumination from bicycle lights. However, such secondary impacts would be minimal and would be substantially less than the existing noise and illumination emitted from the nearby JPL campus and Los Angeles County Fire Camp. Due to the existing activities at these facilities, including vehicles accessing and parking in the respective surface lots, the wildlife in the vicinity has	however, are adjacent to coastal sage scrub habitat. Regardless, the Perimeter Trail Bikeway is not expected to directly impact any sensitive habitat, riparian habitat, wetlands, or habitat for special status species. Common species (such as California ground squirrels, coyotes [transient], western fence lizards, various birds, etc.) occur in this area. As is the case throughout the Annex site, any such species that are residents within the Perimeter Trail Bikeway corridor could be disrupted during construction. However, construction impacts would be short-term and, after construction, the species would likely reinhabit the area. As such, construction impacts are considered less than significant. Once installed, the use of the Perimeter Trail Bikeway could cause secondary impacts on wildlife, such as noise disruption and sporadic illumination from bicycle lights. However, such secondary impacts would be minimal. Unlike the proposed bikeway, the Perimeter Trail Bikeway extends into largely undeveloped portions of the Arroyo. Nonetheless, due to the low intensity and sporadic nature of the noise and	formalizing trails on existing vacant and denuded land, they would have no impact on biological resources.	and denuded land, it would have no impact on biological resources.	resources would be the minor amount of clearing and grubbing needed to carve a trail through the slope on the eastern border of the former U.S. Forest Service Camp. Given (1) the lack of special status species habitat onsite; (2) the disturbed nature of the vegetation in this area; and (3) the limited area of disturbance, impacts on biological resources are considered less than significant. It should be noted that, like the Perimeter Trail Bikeway, a portion of the Sub Option 2 trail would traverse areas identified for habitat restoration.

[5] Based on the emissions factors utilized by the URBEMIS model.

Table 4.1 Focused Environmental Evaluation of the Bikeway and Trails Considered During the Master Plan Addendum Process					
Topic	**Bikeway and Trail Along the Northern Property Boundary**	**Suggested Perimeter Trail Bikeway**	**Other Trails Recommended in HMP Addendum**	**Sub-Trail Option 1**	**Sub-Trail Option 2**
	either adapted to the existing, human-influenced, ambient noise and light levels or has long since been eradicated from the area. Due to the exiting human use of the surrounding parcels, use of the proposed bikeway and equestrian/pedestrian trail would not increase ambient noise or light levels. Therefore, the proposed Greenway would not cause any secondary impacts that would noticeably affect wildlife. Table 4.2, below, identifies the trees in the vicinity of the bikeway and trail alignments that would be removed due to their health, removed for habitat restoration, and/or would be impacted by the bikeway and/or trail alignments. As shown in this table, many of the trees in the vicinity of these alignments are non-native and are thus recommended for phased removal for habitat restoration purposes. Two additional trees are required to be removed due to safety and maintenance issues. In total, 35 trees (33 non-natives) in the vicinity of the bikeway and trail alignments are identified for removal (regardless of trail improvements), and 15 native trees are identified for preservation (14 coast live oaks and 1 California sycamore). After considering the identified removal of 35 trees for	illumination that would be generated by the Perimeter Trail Bikeway, secondary impacts would be considered less than significant. The Perimeter Trail Bikeway is not anticipated to impact any trees. It should be noted that the HWP Master Plan designates the area surrounding the Perimeter Trail for habitat restoration. Installation of a 10-ft wide bikeway along this alignment would decrease the acreage of habitat restoration that could occur in this area by 0.41-acres (18,000 ft^2). While not an impact pursuant to CEQA, the loss of this opportunity for habitat restoration would be an adverse impact to the future habitat of the Hahamongna Watershed Park.			In total, this option would reduce the HMP Addendum's habitat restoration area by approximately 1,200 ft^2 (assuming a 6-ft wide trail over 200 linear feet of habitat restoration area). While not an impact pursuant to CEQA, the loss of this opportunity for habitat restoration would be an adverse impact to the future habitat of the Hahamongna Watershed Park.

Table 4.1 Focused Environmental Evaluation of the Bikeway and Trails Considered During the Master Plan Addendum Process					
Topic	**Bikeway and Trail Along the Northern Property Boundary**	**Suggested Perimeter Trail Bikeway**	**Other Trails Recommended in HMP Addendum**	**Sub-Trail Option 1**	**Sub-Trail Option 2**
	other purposes, the bikeway and trail alignments would not impact any additional trees. Both of the alignments would individually impact a sugar bush specimen, which is not a tree species but is included in Table 4.2 due to its size and quality. See Section 3.4 for a discussion of potential impacts on wildlife displaced by the Station Fire.				
Cultural Resources	The proposed bikeway and potential trail would not impact any historic structures, as none exist along the alignments. However, as is the case throughout the Annex site, grading for the bikeway and trail has the potential to impact previously undiscovered archaeological and paleontological resources. As such, Mitigation Measures Cultural 1, 3, 4, and 5 from the Master EIR would be applied to construction work within the alignments. With the application of these measures, the proposed bikeway and potential trail would not significantly impact any cultural resources.	The Perimeter Trail Bikeway would not impact any historic structures, as none exist along this alignment. However, as is the case throughout the Annex site, grading for the Perimeter Trail Bikeway has the potential to impact previously undiscovered archaeological and paleontological resources. Mitigation Measures Cultural 1, 3, 4, and 5 from the Master EIR could be applied to construction of the Perimeter Trail Bikeway. With the application of these measures, the Perimeter Trail Bikeway would not significantly impact any cultural resources.	As the other recommended trail improvements consist of formalizing trails on existing vacant and denuded land, they would have no impact on cultural resources.	As Sub Option 1 consists of formalizing a trail on existing vacant and denuded land, it would have no impact on cultural resources.	The only component of Sub Option 2 that could impact cultural resources would be the minor amount of grading needed to carve a trail through the slope on the eastern border of the former U.S. Forest Service Camp. With the application of Mitigation Measures Cultural 1, 3, 4, and 5 from the Master EIR, impacts are less than significant.
Energy	The facilities would not conflict with an adopted energy conservation plan	The Perimeter Trail Bikeway would not conflict with an adopted energy	For the reasons noted in the cells to	For the reasons noted in the cells to	For the reasons noted in the cells to

Table 4.1 Focused Environmental Evaluation of the Bikeway and Trails Considered During the Master Plan Addendum Process					
Topic	**Bikeway and Trail Along the Northern Property Boundary**	**Suggested Perimeter Trail Bikeway**	**Other Trails Recommended in HMP Addendum**	**Sub-Trail Option 1**	**Sub-Trail Option 2**
	and would not use non-renewable resources in a wasteful and inefficient manner. Therefore, the proposed bikeway and potential trail would not cause any significant energy impacts.	conservation plan and would not use non-renewable resources in a wasteful and inefficient manner. Therefore, the Perimeter Trail Bikeway would not cause any significant energy impacts.	the left, none of the other recommended trail improvements would cause any significant energy impacts.	the left, Sub Option 1 would not cause any significant energy impacts.	the left, Sub Option 2 would not cause any significant energy impacts.
Geology and Soils	Since the facilities are not habitable structures, the bikeway and trail would not expose people or structures to significant seismic-related impacts, unstable soils or geologic units, or expansive soils. Likewise, the facilities would not cause any significant erosion impacts and would not result in any septic-related impacts. See Section 3.7.	Since the Perimeter Trail Bikeway does not involve constructing any habitable structures, the Perimeter Trail Bikeway would not expose people or structures to significant seismic-related impacts, unstable soils or geologic units, or expansive soils. Likewise, the Perimeter Trail Bikeway would not cause any significant erosion impacts and would not result in any septic-related impacts. See Section 3.7.	As the other recommended trail improvements consist of formalizing trails on existing vacant and denuded land, they would cause no geology or soil impacts.	As Sub Option 1 consists of formalizing a trail on existing vacant and denuded land, it would cause no geology or soil impacts.	The only grading required for this trail stub would be the minor amount of needed to carve a trail through the slope on the eastern border of the former U.S. Forest Service Camp. For the reasons noted in Section 3.7 an in the cells to the left (columns 2 and 3), Sub Option 2 would not cause any significant geology or soil impacts.
Hazards and Hazardous Materials	The facilities do not involve the use, transport, or storage of hazardous materials and are not located on a known hazardous material site. The JPL-induced groundwater contamination discussed in Section 2.8(d) exists in groundwater below	The Perimeter Trail Bikeway does not involve the use, transport, or storage of hazardous materials and is not located on a known hazardous material site. The JPL-induced groundwater contamination discussed in Section 2.8(d) exists in	As the other recommended trail improvements consist of formalizing trails on existing vacant and denuded land, they	As Sub Option 1 consists of formalizing a trail on existing vacant and denuded land, it would cause no hazards or	The only grading required for this trail stub would be the minor amount needed to carve a trail through the slope on the eastern

Table 4.1 Focused Environmental Evaluation of the Bikeway and Trails Considered During the Master Plan Addendum Process					
Topic	**Bikeway and Trail Along the Northern Property Boundary**	**Suggested Perimeter Trail Bikeway**	**Other Trails Recommended in HMP Addendum**	**Sub-Trail Option 1**	**Sub-Trail Option 2**
	1,040.5 ft above msl. The bikeway and trail alignments are located on terrain that is well above 1,040.5 ft in elevation (approximately 1,070 ft amsl). As such, construction of the proposed bikeway and potential trail is not expected to encounter contaminated groundwater. As is the case throughout the Annex site, the bikeway and trail are within fire hazard areas (see Plate P-2 of the City's Safety Element). Application of Master EIR Mitigation Measure Public Services-3 would reduce potential wildfire impacts to a less than significant level. See Section 2.8(h). The proposed bikeway and potential trail would have no hazard impacts related to airports/airstrips and would not, itself, cause any adverse impacts on emergency access.	groundwater below 1,040.5 ft above msl. Portions of the Perimeter Trail Bikeway lie below 1,040.5 ft in elevation. As such, construction of the Perimeter Trail Bikeway would be required to comply with Master EIR Mitigation Measure Hazards 3. With the incorporation of this measure, the Perimeter Trail Bikeway would not result in any significant hazardous material-related impacts. As is the case throughout the Annex site, the Perimeter Trail Bikeway corridor is within fire hazard areas (see Plate P-2 of the City's Safety Element). Application of Master EIR Mitigation Measure Public Services-3 would reduce potential wildfire impacts to a less than significant level. See Section 2.8(h). The Perimeter Trail Bikeway corridor would have no hazard impacts related to airports/airstrips and would not, itself, cause any adverse impacts on emergency access.	would cause no hazards or hazardous material impacts.	hazardous material impacts.	border of the former U.S. Forest Service Camp. This grading would occur above 1,040.5 ft in elevation (approximately 1,065 ft amsl). As such, and due to the nature of this suggested improvement, Sub Option 2 would cause no hazards or hazardous material impacts.
Hydrology and Water Quality	The facilities would not (1) violate any water quality standards or waste discharge requirements; (2) deplete groundwater or interfere with groundwater recharge; (3) substantially alter drainage patterns; (4) cause an exceedance of the	The Perimeter Trail Bikeway would not (1) violate any water quality standards or waste discharge requirements; (2) deplete groundwater or interfere with groundwater recharge; (3) substantially alter drainage patterns;	As the other recommended trail improvements consist of formalizing trails on existing vacant and denuded land, they	As Sub Option 1 consists of formalizing a trail on existing vacant and denuded land, it would have no impact on	The only component of Sub Option 2 that could impact hydrology or water quality is the minor amount of grading needed

Table 4.1 Focused Environmental Evaluation of the Bikeway and Trails Considered During the Master Plan Addendum Process					
Topic	**Bikeway and Trail Along the Northern Property Boundary**	**Suggested Perimeter Trail Bikeway**	**Other Trails Recommended in HMP Addendum**	**Sub-Trail Option 1**	**Sub-Trail Option 2**
	stormwater drainage system; (5) place housing or structures within a 100-year flood hazard area; (6) expose people or structures to flooding; or (7) be inundated by seiche, tsunami, or mudflow. In a localized manner, the bikeway component would decrease the permeability of the corridor, causing stormwater to sheet flow to either side of the bikeway. In accordance with Master EIR Measure Hydro-1, BMPs would be installed to control drainage from the proposed bikeway. Likewise, to control erosion and sedimentation during construction, Measure Hydro-1 would be applied to ensure the appropriate BMPs are implemented during construction. Therefore, the proposed bikeway and potential trail would not cause any significant drainage, hydrology, or water quality impacts.	(4) cause an exceedance of the stormwater drainage system; (5) place housing or structures within a 100-year flood hazard area; (6) expose people or structures to flooding; or (7) be inundated by seiche, tsunami, or mudflow. While the Perimeter Trail Bikeway would not place housing or structures within a 100-year flood hazard area, portions of the this alignment lie below the Devils Gate Dam's "Floor of Spillway" elevation of 1040.5 ft. above msl. As such, it is reasonably foreseeable that segments of the Perimeter Trail Bikeway would be occasionally inundated when the Dam is retaining water. Nonetheless, since a trail would not impede flood flows and does not involve any habitable structures, the potential flooding of segments of the Perimeter Trail Bikeway is considered a less than significant impact. Like the proposed bikeway, in a localized manner, the Perimeter Trail Bikeway would decrease the permeability of the corridor, causing stormwater to sheet flow to either side of the bikeway. In accordance with Master EIR Measure Hydro-1, BMPs would be installed to control drainage from the bikeway. Likewise,	would have no impact on hydrology or water quality.	hydrology or water quality.	to carve a trail through the slope on the eastern border of the former U.S. Forest Service Camp. However, with the application of Master EIR Measure Hydro-1, the appropriate BMPs would be implemented, reducing any impacts to a less than significant level.

Table 4.1
Focused Environmental Evaluation of the Bikeway and Trails Considered During the Master Plan Addendum Process

Topic	Bikeway and Trail Along the Northern Property Boundary	Suggested Perimeter Trail Bikeway	Other Trails Recommended in HMP Addendum	Sub-Trail Option 1	Sub-Trail Option 2
		to control erosion and sedimentation during construction, Measure Hydro-1 would be applied to ensure the appropriate BMPs are implemented during construction. Therefore, the Perimeter Trail Bikeway would not cause any significant drainage, hydrology, or water quality impacts.			
Land Use and Planning	The bikeway and trail would not physically divide a community, would not conflict with any applicable land use plans, policies, or regulations adopted for the purpose of avoiding an environmental effect, and would not conflict with an adopted habitat conservation plan or natural community conservation plan. As part of the HMP Addendum, the facilities would require an Amendment to the existing HWP Master Plan to establish a use plan for the Annex site. However, the proposed Amendment is consistent with all of the Goals and Objectives of the HWP Master Plan.	The Perimeter Trail Bikeway would not physically divide a community and would not conflict with an adopted habitat conservation plan or natural community conservation plan. The Perimeter Trail Bikeway is inconsistent with the HWP Master Plan. The only way the Perimeter Trail Bikeway could be constructed is if the HWP Master Plan were amended to redesignate an 1,800-linear-ft segment of the westside Perimeter Trail for joint use that includes bicycles.[6] (The current HWP Master Plan directs bicycles off of the involved segment of the Perimeter Trail and onto existing paved access roads.) To accommodate bicycles, the Perimeter	For the reasons noted in the cell to the far left (column 2), none of the other recommended trail improvements would cause any significant land use or planning impacts.	For the reasons noted in the cell to the far left (column 2), Sub Option 1 would not cause any significant land use or planning impacts.	For the reasons noted in the cell to the far left (column 2), Sub Option 2 would not cause any significant land use or planning impacts.

[6] The proposed HMP Addendum would require an Amendment to the HWP Master Plan to incorporate the HMP Addendum as a new component of the Master Plan. The proposed HMP Addendum, however, does not involve revising the content of the existing HWP Master Plan in any way. Rather the HMP Addendum simply consists of adding to the existing Mater Plan. Conversely, the Perimeter Trail Bikeway would require amending the existing text and graphics of the HWP Master Plan. Nonetheless, from a processing standpoint, amending the HWP Master Plan to allow for the Perimeter Trail Bike could be included as a component of the overall HWP Master Plan Amendment required for the HMP Addendum.

Table 4.1 Focused Environmental Evaluation of the Bikeway and Trails Considered During the Master Plan Addendum Process					
Topic	**Bikeway and Trail Along the Northern Property Boundary**	**Suggested Perimeter Trail Bikeway**	**Other Trails Recommended in HMP Addendum**	**Sub-Trail Option 1**	**Sub-Trail Option 2**
		Trail's designated width would need to be widened by a minimum of 10 ft, expanding the trail from approximately 12 ft to a minimum of approximately 22 feet. Expanding the trails width would restrict the ability of the City to implement *HWP Master Plan Goal 1: Preserve, restore, and enhance the native habitats*. Section 3.3 part 6 of the HWP Master Plan designates the land adjacent to the westside Perimeter Trail for habitat restoration. Installing a 10-ft wide bikeway along this alignment would decrease the acreage of habitat restoration that could occur in this area by 0.41-acres (18,000 ft^2). As such, the Perimeter Trail Bikeway is not consist with Goal 1 (and all of the related Objectives) of the HWP Master Plan, which is a goal of land use plan adopted for the purpose of mitigating an environmental effect (habitat loss in the Upper Arroyo), and therefore may have a potentially significant land use and planning impact. Further CEQA review would be required if the Perimeter Trail Bikeway were preferred.			
Mineral Resources	The proposed bikeway and potential trail would not result in the loss of availability of a known mineral resource or a locally-important mineral resource.	The Perimeter Trail Bikeway would not result in the loss of availability of a known mineral resource or a locally-important mineral resource.	The other recommended trail improvements would not result in the loss of	Sub Option 1 would not result in the loss of availability of a known mineral	Sub Option 2 would not result in the loss of availability of a known mineral

Table 4.1 Focused Environmental Evaluation of the Bikeway and Trails Considered During the Master Plan Addendum Process					
Topic	**Bikeway and Trail Along the Northern Property Boundary**	**Suggested Perimeter Trail Bikeway**	**Other Trails Recommended in HMP Addendum**	**Sub-Trail Option 1**	**Sub-Trail Option 2**
			availability of a known mineral resource or a locally-important mineral resource.	resource or a locally-important mineral resource.	resource or a locally-important mineral resource.
Noise	The proposed bikeway and potential trail would not (1) expose persons to noise levels in excess of established standards; (2) expose persons to or generate excessive groundborne vibration or noise; (3) result in a permanent increase in ambient noise levels; or (4) expose people to excessive airport/airstrip noise. The only noises anticipated to be generated by the facilities are human use of the trails (i.e., voices, foot traffic, bicycle traffic, etc.) and construction noise during trail installation. Noise generated by trail use noise would be negligible to inaudible to the surrounding uses. Construction noise would likely be loudest during grading, which would require the use of 1-3 pieces of equipment. As is the case throughout the Annex site, noise generated by construction activities would be reduced in accordance with PMC §§ 9.36.080 and 10.52. In addition, Mater EIR Mitigation Measures Noise-1 and	The Perimeter Trail Bikeway would not (1) expose persons to noise levels in excess of established standards; (2) expose persons to or generate excessive groundborne vibration or noise; (3) result in a permanent increase in ambient noise levels; or (4) expose people to excessive airport/airstrip noise. The only noises anticipated to be generated by the Perimeter Trail Bikeway are human use of the trails (i.e., voices, foot traffic, bicycle traffic, etc.) and construction noise during trail installation. Noise generated by trail use noise would be negligible to inaudible to the surrounding uses. Construction noise would likely be loudest during grading, which would require the use of 1-3 pieces of equipment. As is the case throughout the Annex site, noise generated by construction activities would be reduced in accordance with PMC §§ 9.36.080 and 10.52. In addition, Mater EIR Mitigation Measures Noise-1 and	For the reasons noted in the cells to the left (columns 2 and 3), none of the other recommended trail improvements would cause any significant noise impacts.	For the reasons noted in the cells to the left (columns 2 and 3), Sub Option 1 would not cause any significant noise impacts.	For the reasons noted in the cells to the left (columns 2 and 3), Sub Option 2 would not cause any significant noise impacts.

Table 4.1 Focused Environmental Evaluation of the Bikeway and Trails Considered During the Master Plan Addendum Process					
Topic	**Bikeway and Trail Along the Northern Property Boundary**	**Suggested Perimeter Trail Bikeway**	**Other Trails Recommended in HMP Addendum**	**Sub-Trail Option 1**	**Sub-Trail Option 2**
	Noise-3 would be implemented. Compliance with the PMC requirements and the Master EIR mitigation measures would ensure construction of the proposed bikeway and potential trail would not cause any significant noise impacts. See also Section 3.12.	Noise-3 would apply. Compliance with the PMC requirements and the Master EIR mitigation measures would ensure construction of the Perimeter Trail Bikeway would not cause any significant noise impacts. See also Section 3.12.			
Population and Housing	The proposed bikeway and potential trail would not induce population growth, would not displace housing, and would not displace residents.	The Perimeter Trail Bikeway would not induce population growth, would not displace housing, and would not displace residents.	The other recommended trail improvements would not induce population growth, would not displace housing, and would not displace residents.	Sub Option 1 would not induce population growth, would not displace housing, and would not displace residents.	Sub Option 2 would not induce population growth, would not displace housing, and would not displace residents.
Public Services	The proposed bikeway and potential trail would have no measurable impact on fire protection, police protection, libraries, or schools; and the facilities would have a beneficial impact on parks.	The Perimeter Trail Bikeway would have no measurable impact on fire protection, police protection, libraries, or schools; and the Perimeter Trail Bikeway would have a beneficial impact on parks.	The other recommended trail improvements would have no measurable impact on fire protection, police protection, libraries, or schools; and the facilities would have a beneficial impact on parks.	Sub Option 1 would have no measurable impact on fire protection, police protection, libraries, or schools; and the facilities would have a beneficial impact on parks.	Sub Option 2 would have no measurable impact on fire protection, police protection, libraries, or schools; and the facilities would have a beneficial impact on parks.
Recreation	The facilities would have no negative impact on recreation. Conversely, the facilities would provide additional	The Perimeter Trail Bikeway would have no negative impact on recreation. Conversely, the Perimeter	The other recommended trail improvements	Sub Option 1 would have no negative impact on	Sub Option 2 would have no negative impact on

Table 4.1 Focused Environmental Evaluation of the Bikeway and Trails Considered During the Master Plan Addendum Process					
Topic	**Bikeway and Trail Along the Northern Property Boundary**	**Suggested Perimeter Trail Bikeway**	**Other Trails Recommended in HMP Addendum**	**Sub-Trail Option 1**	**Sub-Trail Option 2**
	recreational opportunities for patrons of the Hahamongna Watershed Park.	Trail Bikeway would provide additional recreational opportunities for patrons of the Hahamongna Watershed Park.	would have no negative impact on recreation. Conversely, such improvements would provide additional recreational opportunities for patrons of the Hahamongna Watershed Park.	recreation. Conversely, the improvement would provide additional recreational opportunities for patrons of the Hahamongna Watershed Park.	recreation. Conversely, the improvement would provide additional recreational opportunities for patrons of the Hahamongna Watershed Park.
Transportation and Circulation	The proposed bikeway and potential trail would not (1) cause an increase in traffic; (2) cause an exceedance of an LOS standard; (3) cause a change in air traffic patterns; (4) increase traffic hazards; (5) result in inadequate emergency access; (6) result in inadequate parking capacity; or (7) conflict with adopted policies, plans or programs supporting alternative transportation. The bikeway and trail would be non-vehicle facilities that would promote alternative transportation and provide recreational opportunities.	The Perimeter Trail Bikeway would not (1) cause an increase in traffic; (2) cause an exceedance of an LOS standard; (3) cause a change in air traffic patterns; (4) increase traffic hazards; (5) result in inadequate emergency access; (6) result in inadequate parking capacity; or (7) conflict with adopted policies, plans or programs supporting alternative transportation. The Perimeter Trail Bikeway is a non-vehicle facility that would promote alternative transportation and provide recreational opportunities.	For the reasons noted in the cells to the left (columns 2 and 3), the other recommended trail improvements would have no impact on transportation and circulation.	For the reasons noted in the cells to the left (columns 2 and 3), Sub Option 1 would have no impact on transportation and circulation.	For the reasons noted in the cells to the left (columns 2 and 3), Sub Option 2 would have no impact on transportation and circulation.
Utilities and Service Systems	The proposed bikeway and potential trail would not (1) exceed wastewater treatment requirements; (2) result in inadequate wastewater treatment capacity; (3) result in the need for new water or wastewater treatment	The Perimeter Trail Bikeway would not (1) exceed wastewater treatment requirements; (2) result in inadequate wastewater treatment capacity; (3) result in the need for new water or wastewater treatment facilities; (4)	For the reasons noted in the cells to the left (columns 2 and 3), the other recommended trail improvements	For the reasons noted in the cells to the left (columns 2 and 3), Sub Option 1 would have no impact on utilities	For the reasons noted in the cells to the left (columns 2 and 3), Sub Option 2 would have no impact on utilities

Table 4.1 Focused Environmental Evaluation of the Bikeway and Trails Considered During the Master Plan Addendum Process					
Topic	**Bikeway and Trail Along the Northern Property Boundary**	**Suggested Perimeter Trail Bikeway**	**Other Trails Recommended in HMP Addendum**	**Sub-Trail Option 1**	**Sub-Trail Option 2**
	facilities; (4) result in the need for new or expanded offsite storm water drainage facilities; (5) result in the need for new or expanded water supply entitlements; (6) exceed the permitted capacity of the serving landfill; or (7) conflict with solid waste statutes or regulations. The proposed bikeway and potential trail would not increase the demand for any utilities or service systems.	result in the need for new or expanded offsite storm water drainage facilities; (5) result in the need for new or expanded water supply entitlements; (6) exceed the permitted capacity of the serving landfill; or (7) conflict with solid waste statutes or regulations. The Perimeter Trail Bikeway would not increase the demand for any utilities or service systems.	would have no impact on utilities or service systems.	or service systems.	or service systems.

Table 4.2
Trees Impacted by the Bikeway and Trail Along the Northern Property Boundary

Tree Number	Station	Species		Diameter at Breast Height (DBH in Inches)[1]	Distance from N. Property Line (ft.)	Required to be Removed for Maintenance and Safety Issues?	Recommended Removal for Habitat Restoration?	Impacted[2] by Bikeway Alignment?	Impacted[2] by Trail Alignment?
		Common Name	Scientific Name						
1	0+28	Mediterranean Cypress	*Cupressus sempervirens*	12	14	No	**Yes**	Yes	Yes
2	0+42	Pine	*Pinus sp.*	12	4	No	**Yes**	Yes	Yes
5	1+33	Sweetgum	*Liquidamber styraciflua*	4	15.5	No	**Yes**	No	Yes
7	1+37	Ficus	*Ficus sp.*	3, 3	11.5	No	**Yes**	No	Yes
8	1+45	Sweetgum	*Liquidamber styraciflua*	4	22.5	No	**Yes**	No	No
9	1+45	Coast Live Oak	*Quercus agrifolia*	16	12	**Yes**	No	Yes	Yes
10	1+94	Olive	*Olea europaea*	4, 4, 6, 8	12	No	**Yes**	No	Yes
12	2+24	Sugar Bush	*Rhus ovata* [3]	6	11	No	No	**Yes**	**Yes**
14	2+50	Olive	*Olea europaea*	3, 6, 6	15	No	**Yes**	Yes	Yes
15	2+55	Coast Live Oak	*Quercus agrifolia*	3, 3, 3	0	**Yes**	No	No	No
19	3+23	Olive	*Olea europaea*	4.6. 8	14	No	**Yes**	No	No
21	3+65	Peruvian Pepper	*Schinus molle*	4, 6, 8, 10, 12	12	No	**Yes**	Yes	No
22	3+80	Poplar	*Populus sp.*	4, 5	13	No	**Yes**	Yes	No
23	3+90	Poplar	*Populus sp.*	6	10.5	No	**Yes**	Yes	No
24	4+04	Poplar	*Populus sp.*	5, 6	10.5	No	**Yes**	Yes	No
25	4+09	Pine	*Pinus sp.*	12	10.5	No	**Yes**	Yes	No
26	4+14	Poplar	*Populus sp.*	8	10.5	No	**Yes**	Yes	No
27	4+19	Poplar	*Populus sp.*	6	9.5	No	**Yes**	Yes	No
28	4+25	Pine	*Pinus sp*	14	10.5	No	**Yes**	Yes	No
29	4+48	Pine	*Pinus sp*	10	7.5	No	**Yes**	Yes	No
30	4+56	Ash	*Fraxinus sp.* (not native)	4, 4	8	No	**Yes**	Yes	No
31	4+56	Pine	*Pinus sp*	8	10	No	**Yes**	Yes	No
33	4+63	Pine	*Pinus sp*	8	8	No	**Yes**	Yes	No
34	4+71	Pine	*Pinus sp*	8	10	No	**Yes**	Yes	No
38	5+20	Pine	*Pinus sp.*	8	26.5	No	**Yes**	No	Yes
39	5+29	Peruvian Pepper	*Schinus molle*	8, 10	23	No	**Yes**	No	Yes
40	5+35	Pine	*Pinus sp.*	10	27	No	**Yes**	No	Yes
41	5+45	Peruvian Pepper	*Schinus molle*	10	27	No	**Yes**	No	Yes
42	5+61	Peruvian Pepper	*Schinus molle*	10	25	No	**Yes**	No	Yes

Table 4.2
Trees Impacted by the Bikeway and Trail Along the Northern Property Boundary

Tree Number	Station	Species		Diameter at Breast Height (DBH in Inches)[1]	Distance from N. Property Line (ft.)	Required to be Removed for Maintenance and Safety Issues?	Recommended Removal for Habitat Restoration?	Impacted[2] by Bikeway Alignment?	Impacted[2] by Trail Alignment?
		Common Name	Scientific Name						
43	5+76	Peruvian Pepper	*Schinus molle*	6, 6, 6, 10	28	No	**Yes**	No	Yes
44	5+82	Pine	*Pinus sp.*	12	34	No	**Yes**	No	No
45	5+89	Peruvian Pepper	*Schinus molle*	4, 6, 8	28	No	**Yes**	No	No
48	6+30	Peruvian Pepper	*Schinus molle*	6, 6, 6	33	No	**Yes**	No	No
49	6+35	Pine	*Pinus sp*	4	28	No	**Yes**	No	Yes
50	6+40	Peruvian Pepper	*Schinus molle*	8, 12	28	No	**Yes**	No	Yes
51	7+01	Poplar	*Populus sp.*	4	24	No	**Yes**	Yes	Yes

[1]All DBH shown are estimates; multiple DBH indicates multiple trunks
[2]Per the City of Pasadena Department of Public Works Urban Forestry standards, the term "impact" in this case means the trunk is within the alignment or within six feet of the alignment.
[3]While not a tree species, due to its size and quality this specimen is included in this table.

5.0 DETERMINATION

The following determinations are made on the basis of the evaluation contained in this document:

☑ The proposed HMP Addendum would NOT result in any additional significant effects or the need for new additional mitigation measures or alternatives that are not already discussed in the Arroyo Seco Master EIR. Therefore, the proposed HMP Addendum will not cause any additional significant effects which were not analyzed in the Arroyo Seco Master EIR pursuant to Public Resources Code (PRC) § 21157.1 and State CEQA Guidelines § 15177.

☑ All feasible and appropriate mitigation measures and alternatives set forth in the Arroyo Seco Master EIR have been applied, verbatim as adopted by Council on April 14, 2003, to the project or otherwise made conditions of approval of the project.

☑ No substantial changes have occurred with respect to the circumstances under which the Arroyo Seco Master EIR was certified and there is no new available information which was not known and could not have been known at the time the Arroyo Seco Master EIR was certified. Therefore, none of the "Limitations on the Use of a Master EIR" have been exceeded pursuant to PRC § 21157.6 and State CEQA Guidelines § 15179.

Given the above determinations, the proposed HMP Addendum is "subject to only limited environmental review"[1] and "no new environmental document…shall be required"[2] for the proposed HMP Addendum.

Prepared By: Rosa Laveaga Date: 11.20.09

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Reviewed By: Date: 11-20-09

Theresa Fuentes
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City of Pasadena
Office of the City Attorney/Prosecutor

[1] State CEQA Guidelines § 15177
[2] Public Resources Code § 21157.1

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