

SECTION 2: EXISTING CONDITIONS & ISSUES

This section of the Master Plan describes the current physical setting of the 30 acre addition to Hahamongna Watershed Park (HWP), which for purposes of this document only, is referred to as "the Annex". Features that are outside of the Annex yet pertain to some of the features of the Annex are also reviewed.



Exhibit 2-0: Hahamongna Watershed Park in 2006. The 30 acre Annex area is highlighted.

2.1 OWNERSHIP & EASEMENTS

LAND OWNERSHIP

The Annex is within Hahamongna Watershed Park (HWP), in the City of Pasadena. The park is owned and operated by the City of Pasadena. Refer to Exhibit 1-1, Master Plan Area, for the major physical landmarks located within the master plan area. As owner, the City and its various respective departments, has jurisdiction over any alterations to the site.

EASEMENTS

In addition to the easements described in the original master plan for the park, the Annex includes two additional easements. The first, shown on Exhibit 2-1, Easements, is a .74 acre easement area at the northernmost edge of the Annex and provides a roadway and sewer easement for the Jet Propulsion Laboratory (JPL) along Forest Camp Road, leading to the South Gate entry to the JPL campus. JPL is responsible for maintenance of this roadway.

The second easement was established as a condition of the sale of the property to the City in November 2005. This permanent Open Space Easement exists over the entire 30 acre Annex area and mandates that the property be used solely for an open space, park and recreational purpose (See Appendix B-10).

These easements along with those already mentioned in the original master plan (SCE easement, JPL storm drain easement and the Los Angeles County flood control easement) are also illustrated on Exhibit 2-1. Southern California Edison (SCE) has a utility easement within the Annex and is also shown on Exhibit 2-1.

2.2 ZONING & LAND USE

ZONING

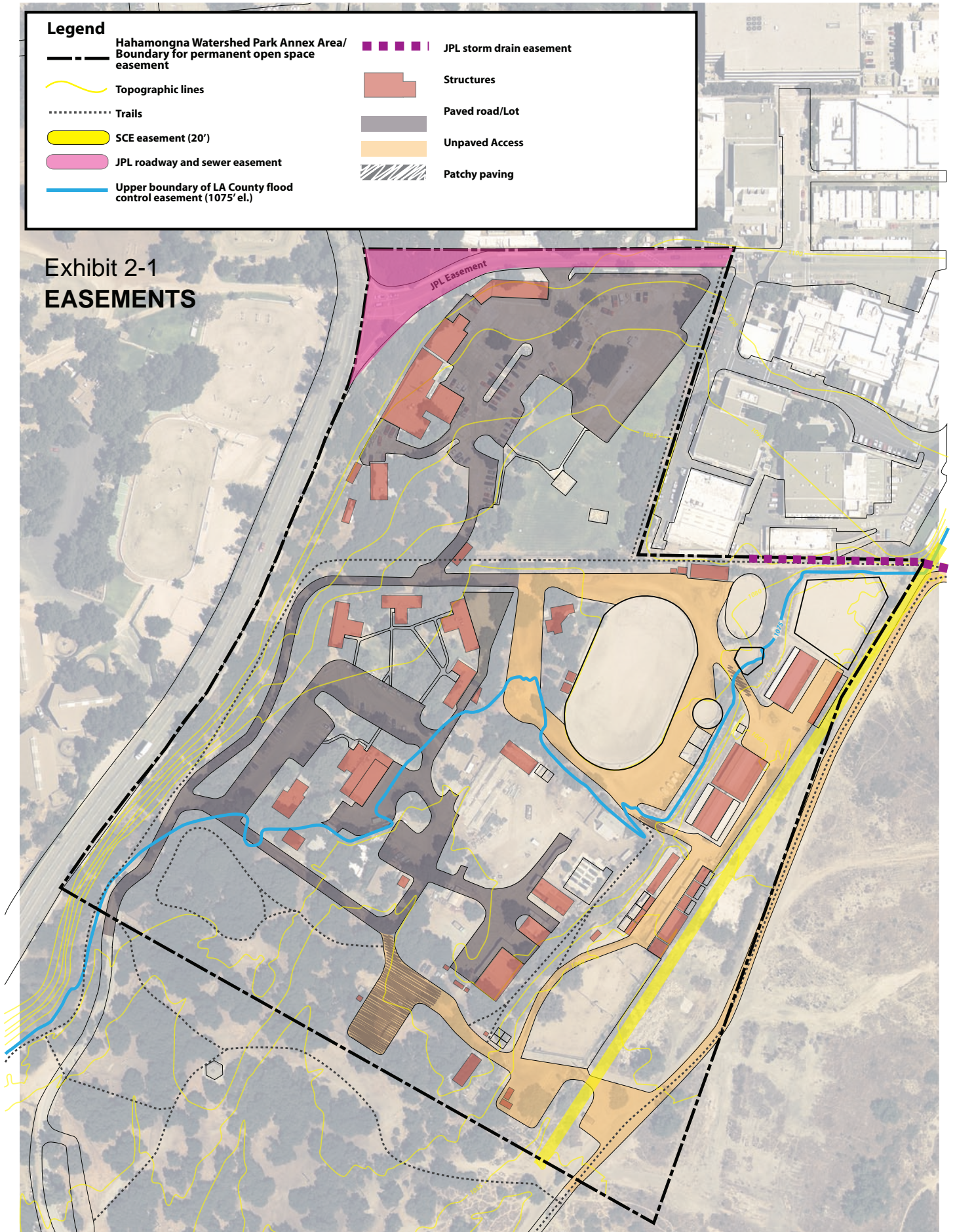
Hahamongna Watershed Park, including the majority of the Annex area, is zoned "OS (Open Space)" district, as illustrated in Exhibit 2-2, Zoning. There are two parcels, one within the Annex and the other outside of the Annex but within HWP, zoned as PD-16 (Jet Propulsion Laboratory Planned Development) 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 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.

Legend

- Hahamongna Watershed Park Annex Area/
Boundary for permanent open space easement
- ~ Topographic lines
- ... Trails
- SCE easement (20')
- JPL roadway and sewer easement
- Upper boundary of LA County flood control easement (1075' el.)

- JPL storm drain easement
- Structures
- Paved road/Lot
- Unpaved Access
- Patchy paving

**Exhibit 2-1
EASEMENTS**

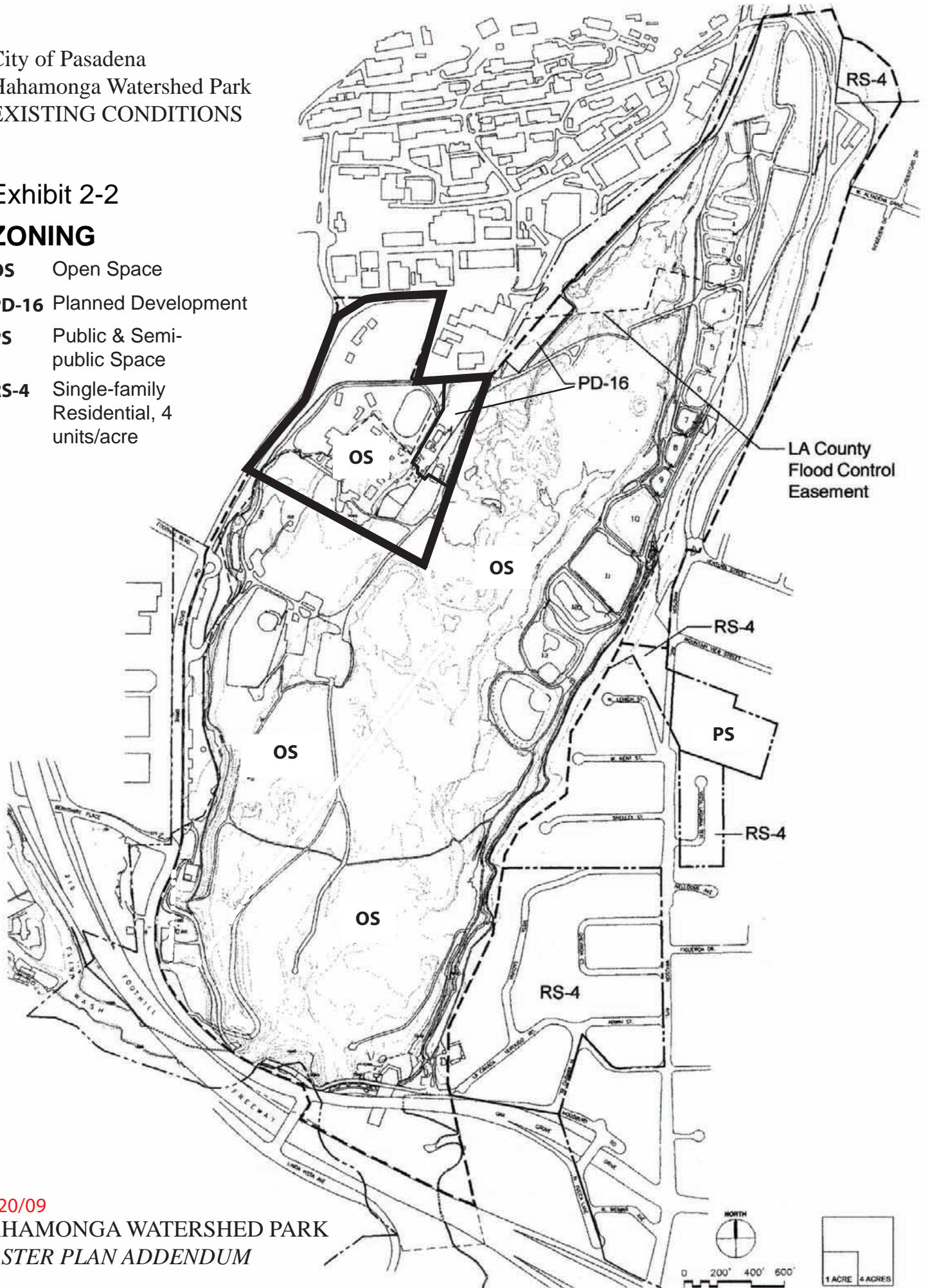


City of Pasadena
Hahamonga Watershed Park
EXISTING CONDITIONS

Exhibit 2-2

ZONING

- OS** Open Space
- PD-16** Planned Development
- PS** Public & Semi-public Space
- RS-4** Single-family Residential, 4 units/acre



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."

The 30 acre annex area contains the areas listed below, as they are currently used. Exhibit 2-3 illustrates the current uses/facilities within these areas (the site and building references indicated correspond with the exhibits). The use areas correspond to the limits of the current lease areas. Photographs for most of the buildings are provided in Appendix C.

A. The Former U.S. Forest Service Oak Grove Compound comprises 6.65 acres in the western portion of the site. The vacant facilities include:

1. Barracks (3 barracks building total)

Concrete block buildings containing three large rooms, restroom and shower room.

2. Mess Hall

Concrete block building containing a commercial kitchen, large pantry, large dining room, cook's quarters with full bath. Adjacent to this building is a detached organic waste storage building.

3. Administration Building

Concrete block building containing multiple offices, equipment garages with roll-up doors (six bays) and two restrooms.

4. Residence

Concrete block building containing living room, dining room, 3 bedrooms, full bath, fenced back yard, and a detached two car garage.

6. Terraced pads

These two terraced pads were the former location of three mobile home units, owned and occupied by U.S. Forest Service employees. The western pad is separated from the other two pads by an Arroyo stone retaining wall.

23. Storage Yard Area

This area was used as a maintenance storage yard for both vehicles and large equipment. The site contains patchy areas of asphalt.

24. Pre-fabricated Metal Buildings with Covered Metal Shed Roof

These two buildings include: a) an office area and a large storage room; b) a half bath, enclosed closet and a large storage room with wide roll-up door; and c) a covered and gated equipment garage between the buildings.

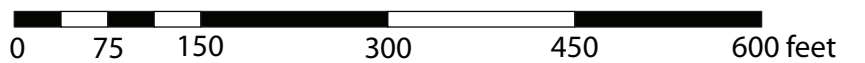
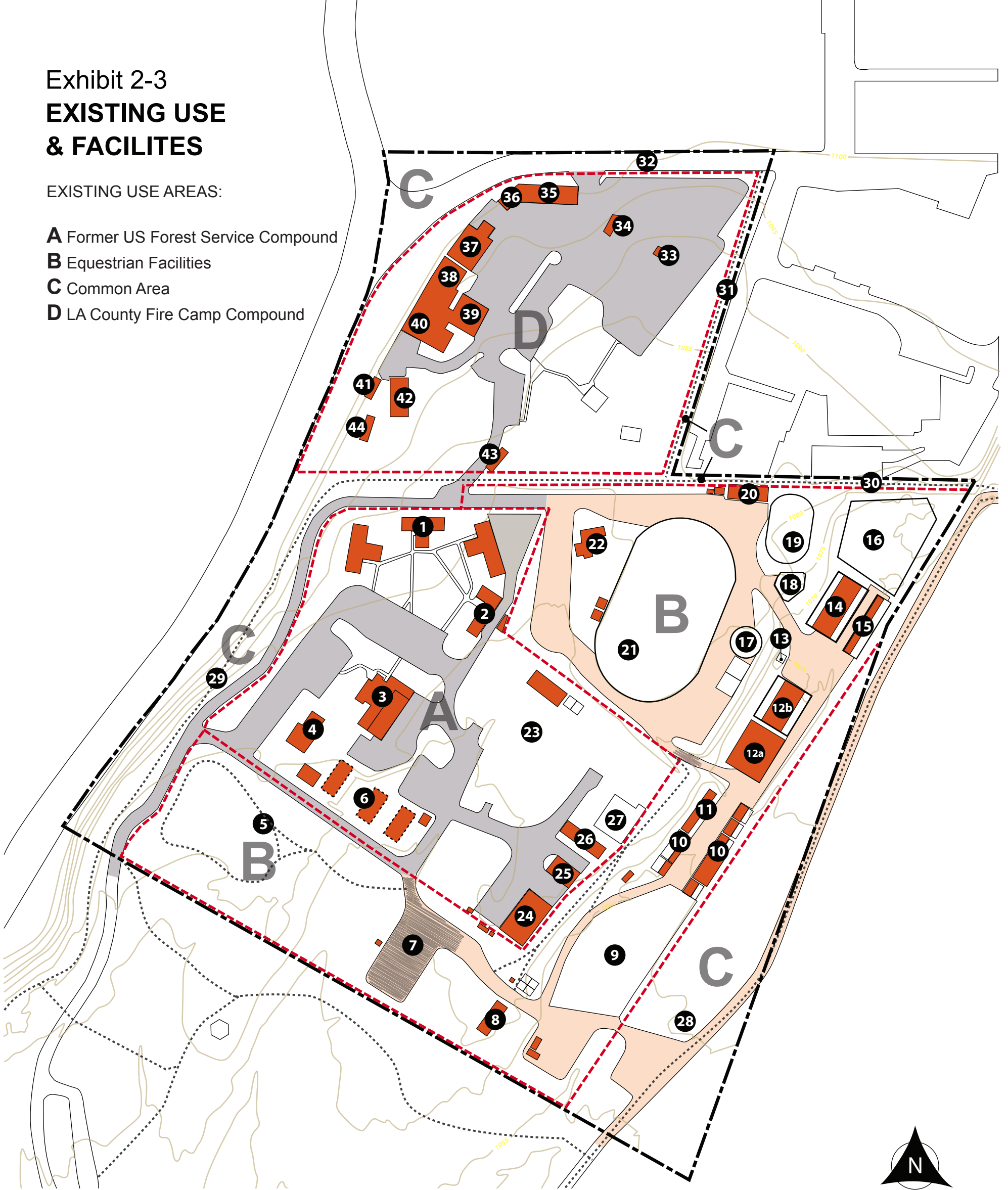
Legend

	Hahamongna Watershed Park Annex Area/ Boundary for permanent open space easement		Structures
	Topographic lines		Structures removed (pad remains)
	Trails		Paved road
	Existing lease boundaries		Dirt road
	Facility I.D. (See text)		Patchy paving

**Exhibit 2-3
EXISTING USE
& FACILITIES**

EXISTING USE AREAS:

- A** Former US Forest Service Compound
- B** Equestrian Facilities
- C** Common Area
- D** LA County Fire Camp Compound



25. Pre-fabricated Metal Storage Building This building includes a large storage room with a wide sliding door and stair access to a loft with two storage rooms under the loft.

26. Pre-fabricated Metal Nursery Building

This building contains a small office, half-bath, and lab/work room and green house. Separate but connected by a small atrium space is a plant propagation green house.

27. Plant Nursery Growing Beds

The ten raised planting beds sit atop a concrete slab. After intensive use of these beds by the USFS ended in the 1980's, the USFS had an agreement with the Arroyo Seco Foundation for use of this area.

B. The Equestrian Area comprises 11.2 acres in the eastern, central and southern portion of the site. This area is currently leased by the Rose Bowl Riders (RBR) who in turn has a sub-lease with Tom Sawyer Camps Inc. (TSC) and a use agreement with Move A Child Higher (MACH1). Usage and facilities in this area are identified below along with an identification of the primary tenant utilizing this area and/or that particular facility:

5. Oak Woodland

Three acres of coast live oak woodland. The area is fenced off and two of the three acres are used by all Annex tenants for equestrian riding. The area is sometimes informally referred to as 'the enchanted forest'.

7. Parking and access

Until recently this area served as the 'off season' parking area for the TSC vans that are used by the camp during its 10 week summer camp in the park. This parking area is surfaced with 'patchy' asphalt. This portion of the site also contains an open-sided hay barn, three storage sheds, a 'team building' play area, and a narrow vehicular access route to the TWC horse staging area.

8. Mobile Home

This area contains the mobile home unit for the TSC 'wrangler' (camp foreman) as well as various equestrian facilities that support the camp operations. The mobile is connected to a septic leaching pit.

9. Horse Corrals

These metal pipe corals house the horses that are used by TSC for the summer youth camp and for their year round horse riding program. There currently are horse corrals able to accommodate 65 to 70 horses. During the 'off season' there are approximately 35 horses corralled at this location.

10. Lower Horse Stables

These are nine horse boarding stables with partial roofs that are individually owned with the occupied space rented on a month-to-month basis from RBR.

11. Tack, Feed & Hay Barn

The Tack Room is the location where a variety of equipment needed to both ride and care for the horses are stored. There are separate rooms for hay and feed storage and to isolate a sick horse (RBR).

12a. Lower Horse Boarding Barn

This barn, collectively owned by the horse owners who use it, has a fully roofed set of stables and a covered aisle through the center. The Lower Barn provides boarding for six horses (RBR). Each of the six stables are individually owned with the occupied space rented on a month-to-month basis from RBR.

12b. Middle Horse Boarding Barn

This barn, collectively owned by the horse owners who use it, has a partially roofed set of stables and a covered aisle through the center. The middle barn provides boarding for six horses. Each of the six stables are individually owned with the occupied space rented on a month-to-month basis from RBR.

13. Wash Rack

The Wash Rack is where the horses get bathed and washed down (RBR).

14. Main Upper Horse Boarding Barn

This barn, collectively owned by the horse owners who use it, has a partially roofed set of stables and a covered aisle through the center. The upper barn provides boarding for eight horses (RBR). Each of the eight stables are individually owned with the occupied space rented on a month-to-month basis from RBR.

15. Upper Barn East

This barn has a fully roofed set of eight stalls. It is currently rented on a month to month basis by a trainer for horses used in lessons or for programs. This barn, owned by RBR, was built soon after the city purchased the property and was originally utilized as a visitor horse barn for equestrian units associated with the Rose Parade.

16. Jumping Arena

The jumping arena is almost exclusively used for jumping with the portable jumps left in place (RBR).

17. Round Pen

The round pen is an area where the horse exercised under control. The horse performs circles around the trainer, who stands in the middle holding the lunge line and directing the horse (RBR).

18. Sun Pen

This pen is used for turning one's horse loose to have free time exercise on their own (RBR).

19. Oval Teaching Arena

This arena is for beginner and intermediate lessons. When riders and horses are new to the art of riding, a smaller arena is beneficial so that the horse and rider are close to the trainer at all times (MACH1 and RBR).

20. Barn

This barn has a fully roofed set of six stalls. Four of six stalls serve as stables for MACH1 to board four horses; two stalls are used by RBR to store equipment, material and a tractor. (MACH1) (RBR).

21. Main Arena

This is the largest arena within the Annex area and is used for horse shows, group lessons and clinics throughout the year. (RBR with shared use by other tenants)

22. Clubhouse

The clubhouse is used by all three tenants for various group gatherings, programs and events. The clubhouse also has an outdoor patio and barbeque area as well as a group picnic area with picnic tables.

C. Common Areas include five locations that border the annex site and are accessible to the general public. These include the:

28. Eastern Common Area

The common area within the site's eastern boundary includes a portion of the park Perimeter Trail/emergency access, an Arroyo stone stockpile, an equestrian waste management area and largely weedy vegetation.

29. Western Common Area

The common area along the site's western boundary includes a park access road that terminates at the iron gate at its most northern terminus (at the entrance to the Main Arena and Clubhouse area), oak woodland and a trail running parallel to the western edge of the park road.

30. Northern Trail

A corridor (varying between 8 to 18 feet in width) with a trail used by hikers and equestrians runs parallel to the northern boundary of the equestrian facilities and is an extension of the trail adjacent to the park access road on the west and ends at the park Perimeter Trail within the Hahamongna basin on the east.

31. JPL Connector Trail

A 13 foot wide corridor with a trail used primarily by JPL hikers runs along the eastern edge of the County Fire Camp; there is one large mature oak tree within the trail corridor, which the trail wraps around.

32. JPL Road Easement

There is a 30 ft. wide road and sidewalk that provides one lane of travel in either direction to and from the JPL southern security entrance. This easement also contains landscaped area with three mature oak trees.

A list of the various activities, events and programs that currently occur at the annex under the current tenants, is provided in Appendix A-5.

D. Los Angeles County Fire Camp 2 Compound

Fire Camp 2 is a tenant within the annex area and contains a facility used for countywide training and conferences. The facility accommodates groups of up to 75 people. A heliport is located here and an emergency medical service helicopter and fire suppression helicopter use this site for staging and refueling. Meeting rooms,

dormitories, a dining hall, spaces for 50 vehicles and garages/equipment storage facilities are all contained within this compound, as identified below:

33. Heliport electrical supply building
34. Open sided equipment garage
35. Enclosed garages with stalls for reserve vehicles & exercise equipment room
36. Crew day room building
37. Large 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

2.3 THE NATURAL ENVIRONMENT

THE BIOLOGICAL ENVIRONMENT

The existing biological environment for the annex site was described and mapped in the original master plan for HWP. The plant communities, vegetation, and wildlife of HWP probably would not exist in their current array without man's influence. The altered and unnatural environmental conditions currently found there are due mainly to four factors. These are: (1) the presence of Devil's Gate Dam (2) the requirements for necessary sediment and debris removal from behind the dam, including the mining of sand and gravel until 1994 (3) the landscaping practices that have over time significantly changed the appearance and composition of HWP and nearby areas, including the annex; and (4) the encroachment of invasive nonnative plants.

The inventories also included the identification of existing natural plant communities, landscaped, and ruderal (non-native weedy) vegetation in the park. The inventory information about the park's biological resources helped to define the existing setting and to lay the foundation for the habitat establishment and restoration plan presented in Section 3 of this Master Plan addendum.

The Existing Setting

Throughout the majority of the Arroyo Seco drainage in HWP, riparian scrub habitats and weedy nonnative grassland dominate the floor of the central portion of the drainage and portions of the annex site. Oak woodland and other types of scrub habitats occupy large and small variable areas along the perimeter and/or side

walls of the drainage. Segments of the site are widely populated with introduced ornamental shrubs and trees, and exotic, ruderal weedy species of grasses and forbs (herbaceous, non-grass species). There are approximately 70 trees (approximately 8% of the estimated 800 trees on the site) that are either dead, diseased, cause a safety concern or are considered non-native species. Some of these non-native species are also considered invasive species by statewide sources.

The Plant Communities

Of the six native terrestrial natural plant communities that were identified in the survey areas within the larger HWP area: (1) coast live oak woodland, (2) southern willow scrub, (3) mule fat scrub, (4) riversidian alluvial fan sage scrub, (5) sage scrub, and (6) southern sycamore riparian woodland, only the coast live oak woodland plant community is present within the annex site. See Exhibit 2-4, Plant Communities within the Annex.

Coast Live Oak Woodland

Coast live oak woodland is typically located on north-facing slopes and shaded ravines in southern California. In HWP and the annex area, however, it occurs on the more level terrain of old terraces of alluvial fans on the west boundary of the site. The Oak Grove area, of the park as well as the southern portion of the annex immediate to the Oak Grove area, as well as portions of the annex site, represent an exquisite, remnant example of the sort of coast live oak woodland that used to cover much of the southern half of the state in the Coast, Transverse, and Peninsular ranges.

Commonly associated shrub understory species in this plant community include black sage (*Salvia mellifera*), California blackberry (*Rubus ursinus*), California bay or laurel (*Umbellularia californica*), California redberry (*Rhamnus californica*), California sagebrush (*Artemisia californica*), chamise (*Adenostoma fasciculatum*), laurel sumac (*Malosma laurina*), western poison oak (*Toxicodendron diversilobum*), scrub oak (*Quercus berberidifolia*), toyon (*Heteromeles arbupifolia*), Mexican elderberry (*Sambucus mexicana*), bigleaf maple (*Acer macrophyllum*), box elder (*A. negundo*), hairy ceanothus (*Ceanothus oliganthus*), bush monkeyflower (*Mimulus aurantiacus*), and various currant or gooseberry species (*Ribes spp.*) (Holland, 1986; Sawyer and Keeler-Wolf, 1995). The herbaceous layer component is often continuous and dominated by ripgut (*Bromus diandrus*) and other introduced taxa such as common chickweed (*Stellaria media*) (Holland, 1986).

Ruderal Vegetation

Ruderal vegetation dominates the central portion of the master plan study area along the drainage from west to east, and north to south within this central portion. Ruderal vegetation which included weedy mustard and sunflower family members

Legend

- Hahamongna Watershed Park Annex Area
- ~ Topographic lines
- Trails
- - - Existing lease boundaries
- Developed Area (No Plant Community)
- Ruderal Vegetation
- Coast Live Oak Woodland

**Exhibit 2-4
NATURAL ENVIRONMENT:
PLANT COMMUNITIES
WITHIN THE ANNEX**



rather than grasses, have dominated this community in recent years in the central riparian and graded areas of the basin. The coast live oak woodland area within the annex does have smaller, patchy mosaics of nonnative grassland and/or other ruderal vegetation scattered within this community boundaries. This nonnative terrestrial plant community, which has very little value to most native wildlife species, offers numerous opportunities for major habitat restoration planning efforts at the annex site specifically.



Ruderal vegetation

Commonly observed species in ruderal vegetation and/or nonnative grassland community include slender wild oats, common wild oats, ripgut, red brome (*Bromus madritensis* ssp. *rubens*), soft chess (*B. hordeaceus*), black mustard (*Brassica nigra*), turnip or field mustard (*B. rapa*), shortpod mustard (*Hirschfeldia incana*), red-stem filaree (*Erodium cicutarium*), filaree (*E. botrys*), gillias (*Gilia* spp.), tarweed (*Hemizonia fasciculata*), Italian ryegrass (*Lolium multiflorum*), peppergrass (*Lepidium nitidum*), burclover (*Medicago polymorpha*), Mediterranean grass (*Schismus barbatus*), star-thistles (*Centaurea* spp.), and vulpias or annual fescues (*Vulpia* spp.) (Holland, 1986; Sawyer and Keeler-Wolf, 1995). During the inventory surveys, large areas of the nonnative grassland community covered with weedy annual bur-sage (*Ambrosia acanthicarpa*), horseweed (*Conyza canadensis*), and plantain (*Plantago ovata*) were observed.

Landscaped Vegetation

Landscaped vegetation is largely composed of cultivated ornamental, horticultural plants that may be introduced or native tree, shrub, forb, and grass species. Landscaped plant species are usually aesthetically appealing but are often

moderately to extremely dependent on human management for water, minerals and nutrients (from fertilizers and soil amendments), pruning and maintenance, pest and pathogen control. A predominant portion of the annex site currently consists of landscaped vegetation and is indicated on Exhibit 2-4 as “developed area”.

The numbers and types of landscaped vegetation within the developed areas are too numerous and diverse to include. Common landscape plants observed in the master plan study area, including the Annex site, were species of eucalyptus, pine, oak, acacia, western sycamore, fig, olive, pittosporum, cherry, pepper tree, maple, liquidambar, ash, juniper, cypress, pyracantha, walnut, hibiscus, oleander, privet, redwood, elm, palm, coral tree, periwinkle, lantana, ivy, plumbago, poplar, tree of heaven, agave, and many others.

THE FLOOD WATER ENVIRONMENT

The adopted HWP master plan includes an extensive section on flood waters and flood management. Highlighting the most pertinent components of that information as it relates to the annex site is the focus of this section.

The Los Angeles County Department of Public Works (LACDPW) owns the Devil's Gate Dam and operates it for flood safety, sediment and debris management, and water conservation. The 1919 lease agreement between LACDPW and the City of Pasadena designated an area easement for flood control, which encompasses approximately 80% of the HWP master plan study area and roughly follows the 1075 elevation contour. Under the most extreme conditions, this area would be flooded for a short period of time. Exhibit 2-5, Water Elevations, illustrates the critical flood water elevations within the site and indicates that the southeastern portion of the site could be inundated for a short period of time. Facilities within the annex located below the 1075.0 foot elevation are remotely subject to infrequent, short-term inundations.

Critical to the understanding of the environment of the basin is the influence of the dam on flood elevations within the annex site. The spillway floor elevation (1040.5), the top of the headworks (elevation 1067), and the top of the dam (elevation 1075) are also highlighted on Exhibit 2-5.

2.4 SITE DRAINAGE & WATER QUALITY

The site generally drains in a southerly direction. Exhibit 2-6, Existing Site Drainage, illustrates the storm water drainage patterns on the Annex site. The section of the adopted HWP master plan describing “the Alluvial Fan Environment” typifies the characteristics for the park, including the Annex site. HWP is situated at the opening of the Arroyo Seco canyon along the upper portion of an alluvial fan environment. Alluvial fans are complex, dynamic and as such potentially unstable

City of Pasadena
 Hahamongna Watershed Park
 EXISTING CONDITIONS

Exhibit 2-5
 WATER ELEVATIONS

Addendum to HWP
 Master Plan Area

Top of Dam
 Elev. 1075.0

Top of Spillway
 Headworks
 Elev. 1067.0

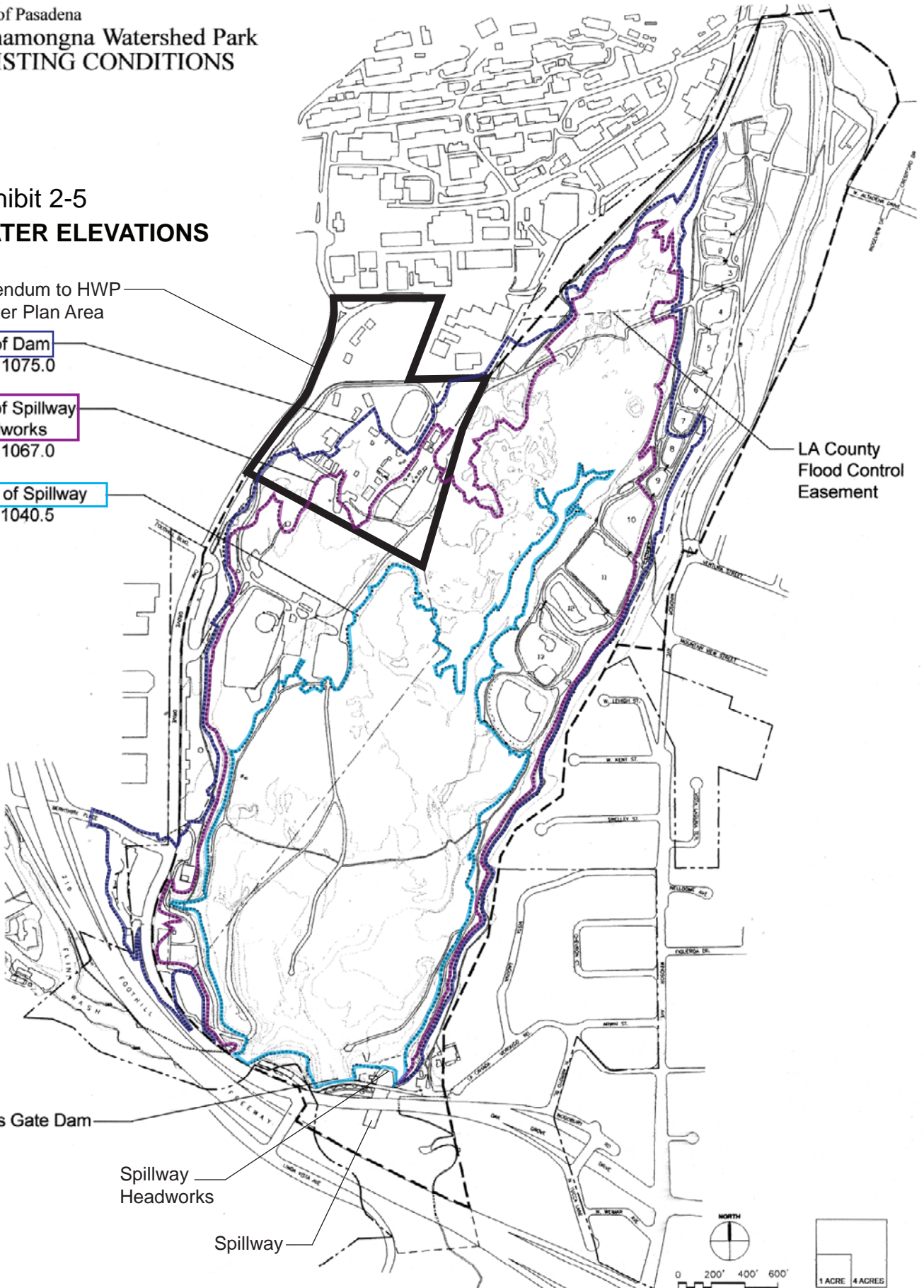
Floor of Spillway
 Elev. 1040.5

LA County
 Flood Control
 Easement

Devil's Gate Dam

Spillway
 Headworks

Spillway



environments causing erosion from the steep slopes of the San Gabriel Mountains to be deposited downslope. This process is most inherent in the Hahamongna basin and behind Devil's gate dam, but also existent to a proportionately smaller degree during storm conditions within the Annex. The deposition of sediment laden storm flows due to eroded material from on site that all result in the formation of eroded channels is a regular occurrence during winter months, particularly in the lower terrace area of the site, where the horse boarding area is situated. These conditions require the tenants to shovel out sediment from collected areas, including horse stalls, and has created a severely eroded lower access road in the horse boarding area that doubles as a drainage channel during heavy rains. The Oak Grove area of the park, just outside the southeastern portion of the Annex, is a known deposition area from the erosion and sediment from upslope and within the eastern portion of the Annex.

The Storm Drain section, further describes other drainage issues resulting from the storm drains on the site.

2.5 UTILITIES & SERVICES

The utility infrastructure within the master plan study area includes storm drains, water mains, water quality test wells, overhead & underground power and communications lines, natural gas, and sewage management systems. The municipal services include solid waste collection. Unless otherwise mentioned below, the adopted master plan outlined the existing conditions for these utilities and services. Following are existing conditions found within the Annex site:















STORM DRAINS

Exhibit 2-6, Existing Site Drainage, illustrates where existing storm drains are positioned on the Annex site, in an effort to attempt to respond to the site's drainage patterns. There are five storm drain locations on the site:

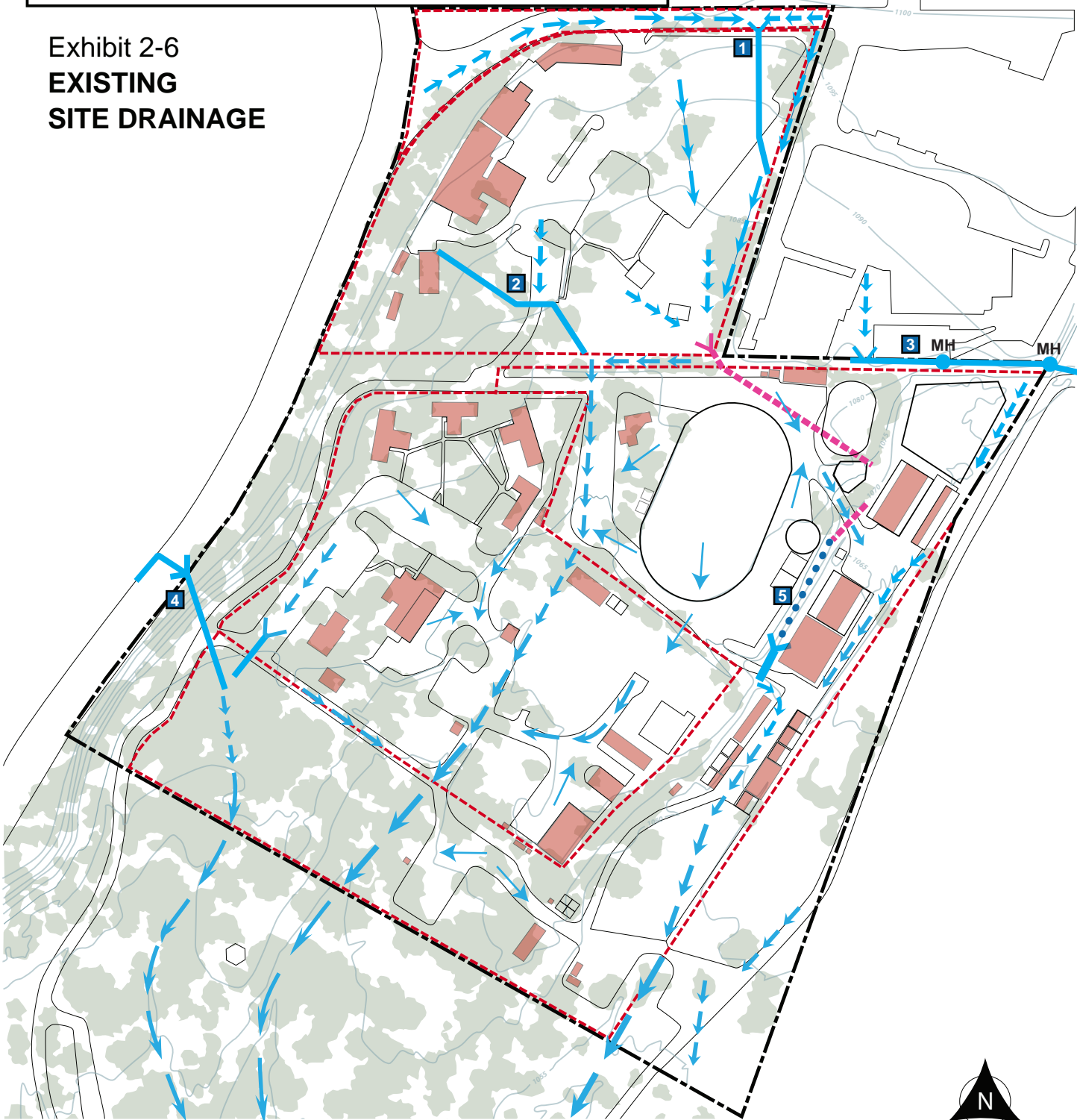
Storm Drain No. 1

This refers to the JPL roadway easement storm drain and is located along the eastern border of the County Fire Camp 2 area. 75% of the surface flows from the Fire Camp join the storm water flows from this roadway storm drain, travel south and collect at the southeasternmost corner of the Fire Camp compound where a non-functioning storm drain inlet is causing pooling and erosion problems on the adjacent hiking trail and the northwestern portion of the main equestrian parking area.

Legend

	Hahamongna Watershed Park Annex Area/ Boundary for permanent open space easement		Direction of concentrated surface flows
	Topographic lines		Storm drain pipe
	Trails		Non-functional SD pipe
	Existing lease boundaries		Open Ditch
	Easement		Manhole
	Oak trees/woodland		Storm drain inlet
	Structures		Storm drain number

**Exhibit 2-6
EXISTING
SITE DRAINAGE**



Storm Drain No. 2

This storm drain collects 'grey water' in addition to storm water (greywater is non-industrial wastewater generated from domestic processes such as dish washing, laundry and bathing, but not from sewage or toilets) from the County Fire Camp loading dock and storm water from the parking area at the County Fire Camp, all of which outflows onto the hiking trail northwest of the equestrian area, causing pooling and excessive drainage problems on the trail and within the western portion of the equestrian area.

Storm Drain No. 3

This storm drain collects concentrated surface flows from JPL & Fire Camp 2 via an inlet at their boundary, adjacent to the northern hiking trail, then flows via underground piping to the east where it exits east of the Annex at outlet no. 14 in the flood basin (referenced in the original HWP master plan).

Storm Drain No. 4

A large amount of storm water from an 11 acre sub-watershed area west of the Annex that includes north Oak Grove Drive, enters the Annex via a storm drain system. The storm drain traverses the slope in the park, then crosses under the park road and exits. This system terminates at an outlet in the northwest corner of the oak woodland where it merges with storm water from a storm drain outlet that runs under the Annex entry driveway into the former USFS compound, its southern parking lot and adjacent areas.

Storm Drain No. 5

There is an open box, concrete lined ditch in the lower terrace of the annex site, west of the Lower and Middle Horse Boarding Barns that serves as the storm drain collector for the slope between the upper and lower terraces. This drain is two feet wide and one foot deep and is at the base of a slope and also serves as the drain for the horse washing rack. This channel carries storm water (often sediment laden) under the southerly access route to the boarding area where it then flows from a concrete lined ditch and empties onto the dirt road that serves as the main lower access road and that doubles as a drainage channel, as described previously.

WATER MAINS

The adopted HWP master plan outlines the water mains servicing the Annex area, with the exception of service to the County Fire Camp by a 6-inch extension to the 8-inch cast iron water main servicing the former USFS compound and the equestrian tenants. Prior to the sale in 1970 of this property to the MWD, these water mains were owned and operated by the Pasadena Water Department. Since the

purchase of the property in November 2005, potable water service has been provided to the site by the Pasadena Water Department.

NATURAL GAS

Natural gas service to the Annex site is provided by Southern California Gas Company with systems servicing the former USFS compound and the County Fire Camp; there is no gas service to the equestrian tenants at this time.

SEWAGE MANAGEMENT SYSTEMS

The major gravity sewer main runs south, in Oak Grove Drive, serving JPL and the city of La Canada Flintridge. Within the Annex site, all of the restrooms and kitchen in the former U.S.F.S. compound are connected by a gravity sewer system to a sewage sump. The sewage lift station pumps the collected sewage through a force main, discharging into the nearby Oak Grove Drive gravity sewer main. In the equestrian tenant areas, the restrooms have septic systems and are also serviced by portable toilets.

SOLID WASTE COLLECTION

Solid waste disposal/collection is handled independently within each use area. In the equestrian area, horse waste is collected separately by each tenant under separate arrangements.

There is a mutual agreement between the U.S. Forest Service (former tenant) and the City Parks Division to have a solid waste container within the former U.S. Forest Service compound that is collected once per month by a USFS disposal truck. This container facilitates the USFS maintenance operations for the Angeles National Forest adjacent to the HWP.

2.6 MOBILITY

This section examines all aspects of mobility within the Annex, including:

- Vehicular circulation
- Parking
- Access and Public Transit
- Trail and Bicycle Access

Exhibit 2-7, Mobility, illustrates the various mobility aspects within the annex. A traffic analysis of the Annex site was also conducted.

LEGEND

- Bicycle Route (per HWP Master Plan)
- - - - - Currently Used Bike Route Along Gabrielino Trail
- Primary Vehicle Access to Annex
- - - - - Prominent Existing Trails
- * Trailheads
- Existing Transit Stop
- ◆ End of Road/No Emergency Turnaround

PARKING ID	LOCATION	EXISTING # OF SPACES
A	Former USFS (south)	31
B	Former USFS (north)	30
C	Former USFS mobile home area	10
D	Former USFS yard south	20
E	Former USFS yard north	10
F	Upper equestrian area	20
F2	Lower equestrian area	6
H1	Lower Oak Grove	110
H2	Overflow dirt lot	110
I	Group overflow dirt lot	30
J	Maintenance Lot	0
K	Upper Oak Grove	54

**Exhibit 2-7
EXISTING MOBILITY
(Including Existing Parking)**

Gould Canyon Trail

West Rim Trail

Flint Wash Trail
(Rim of the Valley Trail)

Flint Wash Bridge

Altadena Crest Trail

New

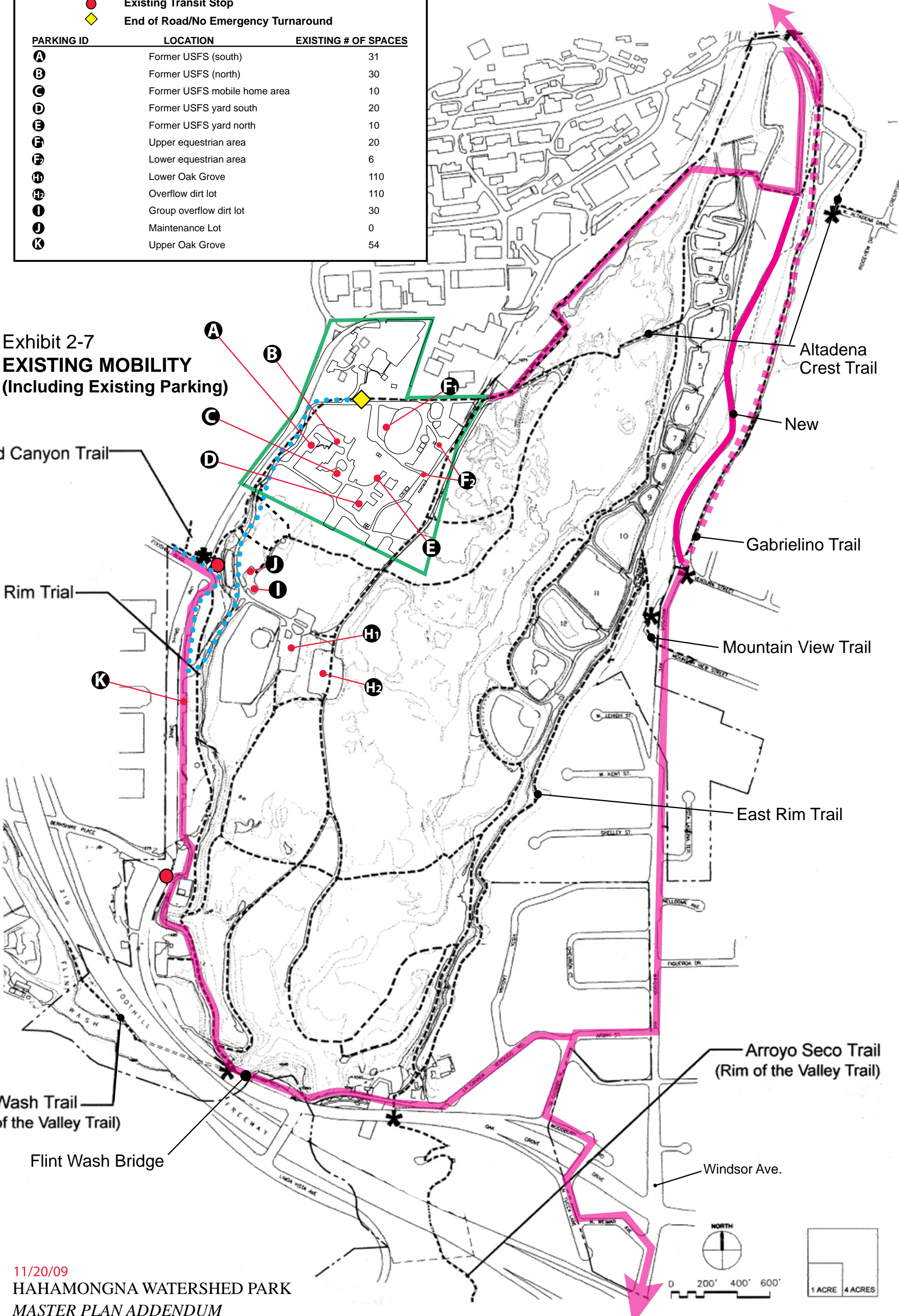
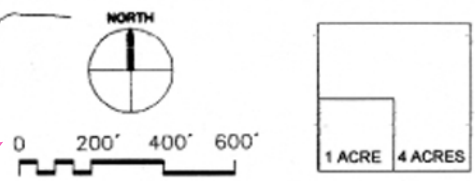
Gabrielino Trail

Mountain View Trail

East Rim Trail

Arroyo Seco Trail
(Rim of the Valley Trail)

Windsor Ave.



VEHICULAR CIRCULATION

The existing park road, which begins at the parks entry at Oak Grove Drive and Foothill Boulevard, is the primary vehicular circulation route to the annex and also within the Annex. A short spur off of the park road then takes vehicles on a loop through the former USFS compound and to the entrance to the youth camp operations area.

The park road terminates at a gated entrance to the equestrian riding area. The current configuration of the park road at this juncture does not allow adequate space to safely turn a vehicle around, to then return on the park road.

From the existing park road, there is a network of dirt routes that then take a driver to the other destination points within the annex.

PARKING

There are approximately 127 parking spaces within the Annex. Exhibit 2-7, Existing Mobility, illustrates the distribution of the parking spaces and the areas within the park that are in close proximity to the Annex site. *(Note: Parking spaces within ½ mile (or 2800 feet) of the former USFS Administration building were considered proximate and a reasonable walking distance from the primary Annex use areas.)*

ACCESS & PUBLIC TRANSIT

As described previously, vehicular access to the site is provided via the primary north-south internal paved roadway that extends north from the park. Unpaved routes provide secondary vehicular access to uses within the Annex.

Public Transit to the site is currently provided by the Los Angeles County Metropolitan Transit Authority (METRO), Foothill Transit Service, City of Glendale Beeline, and Pasadena Area Rapid Transit Service (ARTS). These transit lines utilize two stops; one located at the park entrance at Oak Grove Drive and Foothill Blvd. as shown on Exhibit 2-7, Mobility, and one located at the intersection of Berkshire Place and Oak Grove Drive. Accessibility to the Annex site from these transit stops are either via an existing unpaved trail or through the same paved roadway that takes vehicles to the Annex site, which is circuitous. Dial-a-ride does not currently service HWP.

Emergency access to the Annex site is via the primary paved park road. The park road's terminus at the gated entrance to the equestrian area currently makes it difficult for any vehicle to be able to turn around and exit the area and similarly not possible for an emergency vehicle and/or bus to maneuver.

Access to the site is more difficult in the weekday morning and afternoon hours when La Canada High School is in session. Over the past several years the City of La Canada Flintridge and the City of Pasadena have worked together to assist La

Canada in providing a safe student drop-off and pick-up area for their high school; this area has been provided within the park and along the park road which parallels Oak Grove Drive.

TRAIL & BICYCLE ACCESS

HWP has an existing system of trails for pedestrians and equestrians, as shown on Exhibit 2-7, Existing Mobility. The trail that parallels the western edge of the park road and continues along the southern border of JPL and into the Hahamongna basin plays a major role in providing access to the Annex site and in connecting the site to the larger trail system in Pasadena, Altadena, La Canada Flintridge and the Angeles National Forest.

Bicycle access to the site is currently and primarily via the paved park road as shown on Exhibit 2-7. A number of bicycle lanes, Class II and III bicycle routes are located within one mile of the Annex. The adopted HWP Master Plan includes a recreational bicycle loop around the entire park, which has largely not yet been fully implemented.; The bicycle loop is not for high speed bicycling but is for recreational users wanting to enjoy the park by bike. The adopted HWP master plan allows for about 90% of the full loop around the perimeter of HWP, using a combination of hard surface routes within the park and existing streets immediate to HWP. 10% of a complete full loop (about 900 feet) is missing, resulting in a gap at the Annex site and limiting bicycle access to and through the Annex both from the north and the south. The Pasadena Municipal Code currently prohibits bicycles on unpaved trails in the city.

At the northeast corner of the Annex, the perimeter trail connects to the Angeles National Forest along the eastern edge of the JPL campus and to reaches further north and east.

2.7 EXISTING RECREATION

Public recreational activity has been historically limited at the Annex, primarily because the site has been privately owned. As described previously, there is public recreational trail along the western to northern edge of the property. Since the purchase of the property in November 2005, the current tenants have made a concerted effort to try and advertise some of the programs they independently offer, to make them available to the public and to begin to work with the City in making some of their events known to the community. Public awareness of the lessons offered and of the general recreation available at the Annex is currently limited. See Appendix A-5 for a listing of the recreation programs currently offered at the Annex.

2.8 CULTURAL RESOURCES & HISTORIC ACTIVITIES

There are no archaeological resources on the site that differ from what is described in the original HWP Master Plan. There are some activities that have taken place within the Annex for a very long time and are therefore worth mentioning as historical in nature:

BUILDINGS AND AMENITIES

The permanent buildings within the former U.S. Forest Service Compound were built in late 1950's. Their style is reminiscent of practical USFS building construction of that time. Similarly, the arroyo stone retaining walls built by the California Conservation Corps (CCC's) prior to the USFS occupying the site, are fine examples of retaining wall construction using local natural Arroyo stone and are considered a cultural feature, as they are throughout the Arroyo Seco.



Newly built U.S. Forest Service Compound at the Annex, circa 1950's

THE EQUESTRIAN PRESENCE IN THE ARROYO SECO

The Arroyo Seco Watershed has a long and vibrant history of equestrian use. It is likely that horses have been in the Arroyo since at least the 1770's when the Spaniards settled the area. Horses have both served as a primary means of transport in the Arroyo as well as a form of recreation along the area's trail system, of which nearly 20 linear miles of trails are in Pasadena's Arroyo.

The Annex site is equally rich in its equestrian history with organized equestrian activity dating back as far back as sixty years ago. Horseback riding lessons have been an integral part of some of the programs offered by the Annex tenants since their existence in the park.

The City's desire to retain this historic equestrian presence and make it a public resource was a big impetus for the purchase of the Annex property, along with the potential opportunities imagined in using the former USFS compound.

Equestrians assembled at HWP Annex, circa 1950



The Annex, Circa 1960

