APPENDICES

View of Los Angeles State Historic Park and downtown Los Angeles and the Anabolic Monument by artist Lauren Bon, 2009. Photo: Joshua Moore (c) 2009 Metabolic Studio.

Appendix A: Study Legislation

CONSOLIDATED NATURAL RESOURCES ACT OF 2008

PUBLIC LAW 110-229—MAY 8, 2008
110th Congress

SEC. 327. RIM OF THE VALLEY CORRIDOR STUDY

(a) IN GENERAL.—The Secretary of the Interior (referred to in this section as the ''Secretary'') shall complete a special resource study of the area known as the Rim of the Valley Corridor, generally including the mountains encircling the San Fernando, La Crescenta, Santa Clarita, Simi, and Conejo Valleys in California, to determine—

(1) the suitability and feasibility of designating all or a portion of the corridor as a unit of the Santa Monica Mountains National Recreation Area; and
(2) the methods and means for the protection and interpretation of this corridor by the National Park Service, other Federal, State, or local government entities or private or non-profit organizations.

(b) DOCUMENTATION.—In conducting the study authorized under subsection (a), the Secretary shall document—

(1) the process used to develop the existing Santa Monica Mountains National Recreation Area Fire Management Plan and Environmental Impact Statement (September 2005); and
(2) all activity conducted pursuant to the plan referred to in paragraph (1) designed to protect lives and property from wildfire.

(c) STUDY REQUIREMENTS.—The Secretary shall conduct the study in accordance with section 8(c) of Public Law 91–383 (16 U.S.C. 1a–5).

(d) REPORT.—Not later than 3 years after the date on which funds are made available to carry out this title, the Secretary shall submit to the Committee on Natural Resources of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report containing—

(1) the results of the study; and
(2) any recommendations of the Secretary.

Approved May 8, 2008

Appendix B: New Area Studies Act

TITLE III—STUDY REGARDING ADDITION OF NEW NATIONAL PARK SYSTEM AREAS
SEC. 301. SHORT TITLE.

This title may be cited as the ''National Park System New Areas Studies Act''.

SEC. 302. PURPOSE.

It is the purpose of this title to reform the process by which areas are considered for addition to the National Park System.

SEC. 303. STUDY OF ADDITION OF NEW NATIONAL PARK SYSTEM AREAS.

Section 8 of Public Law 91–383 (commonly known as the National Park System General Authorities Act; 16 U.S.C. 1a–5) is amended as follows:

(1) By inserting ''GENERAL AUTHORITY.—'' after ''(a)''.

(2) By striking the second through the sixth sentences of subsection (a).

(3) By redesignating the last two sentences of subsection (a) as subsection (f) and inserting in the first of such sentences before the words ''For the purposes of carrying'' the following: ''(f) AUTHORIZATION OF APPROPRIATIONS.—''.

(4) By inserting the following after subsection (a):

''(b) STUDIES OF AREAS FOR POTENTIAL ADDITION.—

(1) At the beginning of each calendar year, along with the annual budget submission, the Secretary shall submit to the Committee on Resources of the House of Representatives and to the Committee on Energy and Natural Resources of the United States Senate a list of areas recommended for study for potential inclusion in the National Park System.

''(2) In developing the list to be submitted under this subsection, the Secretary shall consider—

''(A) those areas that have the greatest potential to meet the established criteria of national significance, suitability, and feasibility;

''(B) themes, sites, and resources not already adequately represented in the National Park System; and

''(C) public petition and Congressional resolutions.

''(3) No study of the potential of an area for inclusion in the National Park System may be initiated after the date of enactment of this subsection, except as provided by specific authorization of an Act of Congress.

''(4) Nothing in this Act shall limit the authority of the National Park Service to conduct preliminary resource assessments, gather data on potential study areas, provide technical and planning assistance, prepare or process nominations for administrative designations, update previous studies, or complete reconnaissance surveys of individual areas requiring a total expenditure of less than $25,000.

''(5) Nothing in this section shall be construed to apply to or to affect or alter the study of any river segment for potential addition to the national wild and scenic rivers system or to apply to or to affect or alter the study of any trail for potential addition to the national trails system.

''(c) REPORT.—

(1) The Secretary shall complete the study for each area for potential inclusion in the National Park System within 3 complete fiscal years following the date on which funds are first made available for such purposes. Each study under this section shall be prepared with appropriate

opportunity for public involvement, including at least one public meeting in the vicinity of the area under study, and after reasonable efforts to notify potentially affected landowners and State and local governments.

''(2) In conducting the study, the Secretary shall consider whether the area under study—

''(A) possesses nationally significant natural or cultural resources and represents one of the most important examples of a particular resource type in the country; and

''(B) is a suitable and feasible addition to the system.

''(3) Each study—

''(A) shall consider the following factors with regard to the area being studied—

''(i) the rarity and integrity of the resources;

''(ii) the threats to those resources;

'(iii) similar resources are already protected in the National Park System or in other public or private ownership;

''(iv) the public use potential;

''(v) the interpretive and educational potential;

''(vi) costs associated with acquisition, development and operation;

''(vii) the socioeconomic impacts of any designation;

''(viii) the level of local and general public support; and

''(ix) whether the area is of appropriate configuration to ensure long-term resource protection and visitor use;

''(B) shall consider whether direct National Park Service management or alternative protection by other public agencies or the private sector is appropriate for the area;

''(C) shall identify what alternative or combination of alternatives would in the professional judgment of the Director of the National Park Service be most effective and efficient in protecting significant resources and providing for public enjoyment; and

''(D) may include any other information which the Secretary deems to be relevant.

''(4) Each study shall be completed in compliance with the National Environmental Policy Act of 1969.

''(5) The letter transmitting each completed study to Congress shall contain a recommendation regarding the Secretary's preferredmanagement option for the area.

''(d) NEW AREA STUDY OFFICE.—The Secretary shall designate a single office to be assigned to prepare all new area studies and to implement other functions of this section.

''(e) LIST OF AREAS.—At the beginning of each calendar year, along with the annual budget submission, the Secretary shall submit to the Committee on Resources of the House of Representatives and to the Committee on Energy and Natural Resources of the Senate a list of areas which have been previously studied which contain primarily historical resources, and a list of areas which have been previously studied which contain primarily natural resources, in numerical order of priority for addition to the National Park System. In developing the lists, the Secretary should consider threats to resource values, cost escalation factors, and other factors listed in subsection (c) of this section. The Secretary should only include on the lists areas for which the supporting data is current and accurate.''.

(5) By adding at the end of subsection (f) (as designated by paragraph (3) of this section) the following: ''For carrying out subsections (b) through (d) there are authorized to be appropriated $2,000,000 for each fiscal year.''

Appendix C: NPS *Management Policies 2006* (Sections 1.2, 1.3 and 3.5)

1.2 The National Park System

The number and diversity of parks within the national park system grew as a result of a government reorganization in 1933, another following World War II, and yet another during the 1960s. Today there are nearly 400 units in the national park system. These units are variously designated as national parks, monuments, preserves, lakeshores, seashores, wild and scenic rivers, trails, historic sites, military parks, battlefields, historical parks, recreation areas, memorials, and parkways. Regardless of the many names and official designations of the park units that make up the national park system, all represent some nationally significant aspect of our natural or cultural heritage. They are the physical remnants of our past—great scenic and natural places that continue to evolve, repositories of outstanding recreational opportunities, classrooms of our heritage, and the legacy we leave to future generations—and they warrant the highest standard of protection.

It should be noted that, in accordance with provisions of the Wild and Scenic Rivers Act, any component of the National Wild and Scenic Rivers System that is administered by the Park Service is automatically a part of the national park system. Although there is no analogous provision in the National Trails System Act, several national trails managed by the Service have been included in the national park system. These national rivers and trails that are part of the national park system are subject to the policies contained herein, as well as to any other requirements specified in the Wild and Scenic Rivers Act or the National Trails System Act.

1.3 Criteria for Inclusion

Congress declared in the National Park System General Authorities Act of 1970 that areas comprising the national park system are cumulative expressions of a single national heritage. Potential additions to the national park system should therefore contribute in their own special way to a system that fully represents the broad spectrum of natural and cultural resources that characterize our nation. The National Park Service is responsible for conducting professional studies of potential additions to the national park system when specifically authorized by an act of Congress, and for making recommendations to the Secretary of the Interior, the President, and Congress. Several laws outline criteria for units of the national park system and for additions to the National Wild and Scenic Rivers System and the National Trails System.

To receive a favorable recommendation from the Service, a proposed addition to the national park system must (1) possess nationally significant natural or cultural resources, (2) be a suitable addition to the system, (3) be a feasible addition to the system, and (4) require direct NPS management instead of protection by other public agencies or the private sector. These criteria are designed to ensure that the national park system includes only the most outstanding examples of the nation's natural and cultural resources. These criteria also recognize that there are other management alternatives for preserving the nation's outstanding resources.

1.3.1 National Significance

NPS professionals, in consultation with subject-matter experts, scholars, and scientists, will determine whether a resource is nationally significant. An area will be considered nationally significant if it meets all of the following criteria:

1. It is an outstanding example of a particular type of resource.
2. It possesses exceptional value or quality in illustrating or interpreting the natural or cultural themes of our nation's heritage.
3. It offers superlative opportunities for public enjoyment or for scientific study.
4. It retains a high degree of integrity as a true, accurate, and relatively unspoiled example of a resource.
5. National significance for cultural resources will be evaluated by applying the National Historic Landmarks criteria contained in 36 CFR Part 65 (Code of Federal Regulations).

1.3.2 Suitability

An area is considered suitable for addition to the national park system if it represents a natural or cultural resource type that is not already adequately represented in the national park system, or is not comparably represented and protected for public enjoyment by other federal agencies; tribal, state, or local governments; or the private sector.

Adequacy of representation is determined on a case-by-case basis by comparing the potential addition to other comparably managed areas representing the same resource type, while considering differences or similarities in the character, quality, quantity, or combination of resource values. The comparative analysis also addresses rarity of the resources, interpretive and educational potential, and similar resources already protected in the national park system or in other public or private ownership. The comparison results in a determination of whether the proposed new area would expand, enhance, or duplicate resource protection or visitor use opportunities found in other comparably managed areas.

1.3.3 Feasibility

To be feasible as a new unit of the national park system, an area must be (1) of sufficient size and appropriate configuration to ensure sustainable resource protection and visitor enjoyment (taking into account current and potential impacts from

sources beyond proposed park boundaries), and (2) capable of efficient administration by the Service at a reasonable cost.

In evaluating feasibility, the Service considers a variety of factors for a study area, such as the following:

- size
- boundary configurations
- current and potential uses of the study area and surrounding lands
- landownership patterns
- public enjoyment potential
- costs associated with acquisition, development, restoration, and operation
- access
- current and potential threats to the resources
- existing degradation of resources
- staffing requirements
- local planning and zoning
- the level of local and general public support (including landowners)
- the economic/socioeconomic impacts of designation as a unit of the national park system

The feasibility evaluation also considers the ability of the National Park Service to undertake new management responsibilities in light of current and projected availability of funding and personnel.

An overall evaluation of feasibility will be made after taking into account all of the above factors. However, evaluations may sometimes identify concerns or conditions, rather than simply reach a yes or no conclusion. For example, some new areas may be feasible additions to the national park system only if landowners are willing to sell, or the boundary encompasses specific areas necessary for visitor access, or state or local governments will provide appropriate assurances that adjacent land uses will remain compatible with the study area's resources and values.

1.3.4 Direction NPS Management

There are many excellent examples of the successful management of important natural and cultural resources by other public agencies, private conservation organizations, and individuals. The National Park Service applauds these accomplishments and actively encourages the expansion of conservation activities by state, local, and private entities and by other federal agencies. Unless direct NPS management of a studied area is identified as the clearly superior alternative, the Service will recommend that one or more of these other entities assume a lead management role, and that the area not receive national park system status.

Studies will evaluate an appropriate range of management alternatives and will identify which alternative or combination of alternatives would, in the professional judgment of the Director, be most effective and efficient in protecting significant resources and providing opportunities for appropriate public enjoyment. Alternatives for NPS management will not be developed for study areas that fail to meet any one of the four criteria for inclusion listed in section 1.3.

In cases where a study area's resources meet criteria for national significance but do not meet other criteria for inclusion in the national park system, the Service may instead recommend an alternative status, such as "affiliated area." To be eligible for affiliated area status, the area's resources must (1) meet the same standards for significance and suitability that apply to units of the national park system; (2) require some special recognition or technical assistance beyond what is available through existing NPS programs; (3) be managed in accordance with the policies and standards that apply to units of the national park system; and (4) be assured of sustained resource protection, as documented in a formal agreement between the Service and the nonfederal management entity. Designation as a "heritage area" is another option that may be recommended. Heritage areas have a nationally important, distinctive assemblage of resources that is best managed for conservation, recreation, education, and continued use through partnerships among public and private entities at the local or regional level. Either of these two alternatives (and others as well) would recognize an area's importance to the nation without requiring or implying management by the National Park Service.

3.5 Boundary Adjustments

The boundary of a national park may be modified only as authorized by law. For many parks, such statutory authority is included in the enabling legislation or subsequent legislation that specifically authorizes a boundary revision. Where park-specific authority is not available, the Land and Water Conservation Fund Act of 1965, as amended, provides an additional but limited authority to adjust boundaries.

The act provides for boundary adjustments that essentially fall into three distinct categories: (1) technical revisions; (2) minor revisions based upon statutorily defined criteria; and (3) revisions to include adjacent real property acquired by donation, purchased with donated funds, transferred from any other federal agency, or obtained by exchange. Adjacent real property is considered to be land located contiguous to but outside the boundary of a national park system unit.

As part of the planning process, the Park Service will identify and evaluate boundary adjustments that may be necessary or desirable for carrying out the purposes of the park unit. Boundary adjustments may be recommended to

- protect significant resources and values, or to enhance opportunities for public enjoyment related to park purposes;

- address operational and management issues, such as the need for access or the need for boundaries to correspond to logical boundary delineations such as topographic or other natural features or roads; or
- otherwise protect park resources that are critical to fulfilling park purposes.

If the acquisition will be made using appropriated funds, and it is not merely a technical boundary revision, the criteria set forth by Congress at 16 USC 460l-9(c) (2) must be met. All recommendations for boundary changes must meet the following two criteria:

- The added lands will be feasible to administer considering their size, configuration, and ownership; costs; the views of and impacts on local communities and surrounding jurisdictions; and other factors such as the presence of hazardous substances or exotic species.
- Other alternatives for management and resource protection are not adequate.

These criteria apply conversely to recommendations for the deletion of lands from the authorized boundaries of a park unit. For example, before recommending the deletion of land from a park boundary, a finding would have to be made that the land did not include a significant resource, value, or opportunity for public enjoyment related to the purposes of the park. Full consideration should be given to current and future park needs before a recommendation is made to delete lands from the authorized boundaries of a park unit. Actions consisting solely of deletions of land from existing park boundaries would require an act of Congress.

Appendix D: Resource Inventories

TABLE D-1: DAMS WITHIN THE STUDY AREA

Facility Name	Ownership Type	Dam Purpose(s)
Calleguas Creek Watershed		
Lang Creek Detention Basin	Local Government	Flood Control
Las Llajas	Local Government	Flood Control, Water Supply
Runkle	Local Government	Flood Control
Wood Ranch	Public Utility	Water Supply
Los Angeles River Watershed		
Sepulveda Dam	Federal	Flood Control
Hansen Dam	Federal	Flood Control
Haines Canyon Debris Dam	Federal	Flood Control
Blanchard M1	Federal	Water Supply
Lopez Dam	Federal	Flood Control
Pickens M1	Federal	Water Supply
Wilson Debris Dam	Local Government	Flood Control, Debris Control
Chevy Chase 1290	Local Government	Water Supply
Green Verdugo	Local Government	Water Supply
Pacoima*	Local Government	Flood Control, Water Supply
Elysian	Local Government	Water Supply
Blanchard Debris Basin	Local Government	Flood Control, Debris Control
Bailey Debris Basin	Local Government	Flood Control, Debris Control
Hansen Recreational Lake	Local Government	Water Supply, Recreation
Lower Van Norman Bypass	Local Government	Water Supply
Devils Gate	Local Government	Flood Control, Water Supply
Los Angeles Reservoir	Local Government	Water Supply
Stough Debris Basin	Local Government	Flood Control, Debris Control
Brand Debris Basin	Local Government	Flood Control, Debris Control
Schoolhouse Debris Basin	Local Government	Flood Control, Debris Control
Sierra Madre Villa	Local Government	Flood Control, Debris Control
Lower Sunset Debris Basin	Local Government	Flood Control, Debris Control
East Glorietta	Local Government	Water Supply
La Tuna Debris Basin	Local Government	Flood Control, Debris Control
Chatsworth	Local Government	Water Supply
Eaton Wash Debris Basin	Local Government	Flood Control, Debris Control
Diederich Reservoir	Local Government	Water Supply
Glenoaks 968 Reservoir	Local Government	Water Supply
Encino	Local Government	Water Supply
Eagle Rock	Local Government	Water Supply
Big Tujunga No. 1	Local Government	Flood Control, Water Supply
Rubio Debris Basin	Local Government	Flood Control, Debris Control
Reservoir No. 1	Local Government	Water Supply
Reservoir No. 4	Local Government	Water Supply
Reservoir No. 5	Local Government	Water Supply
Brand Park	Local Government	Water Supply
Santa Clara River Watershed		
Stevenson Ranch	Local Government	Flood Control, Debris Control
Santa Monica Bay		
Upper Franklin Dam	Federal	Flood Control, Water Supply, Fish and Wildlife Pond
Century	State	Water Supply, Recreation
J W Wisda	State	Other

TABLE D-1: DAMS WITHIN THE STUDY AREA (Continued)

Facility Name	Ownership Type	Dam Purpose(s)
Santa Monica Bay		
Lower Franklin	Local Government	Hydroelectric, Water Supply
Lower Franklin #2	Local Government	Water Supply
Greystone Reservoir	Local Government	Water Supply
Upper Hollywood	Local Government	Water Supply
Upper Stone Canyon	Local Government	Water Supply
Santa Ynez Canyon	Local Government	Water Supply
Stone Canyon	Local Government	Water Supply
Mulholland	Local Government	Water Supply
Westlake Reservoir	Public Utility	Irrigation, Water Supply
Lake Eleanor	Public Utility	Water Supply, Recreation
Potrero	Private	Water Supply
Lindero	Private	Water Supply, Recreation
Malibu Lake Club	Private	Water Supply, Recreation
Lake Sherwood	Private	Irrigation, Water Supply, Recreation

Source: USACOE, National Inventory of Dams database. Queried April, 2014.
*At its time of construction, this was the tallest arch dam in the USA (USGS and Southern California Earthquake Center, 1998)

TABLE D-2: DEBRIS AND DETENTION FACILITIES IN THE STUDY AREA

Watershed	Number of Basins	Managing agency
Calleguas Creek Watershed	13	VCWPD
Los Angeles River Watershed	96	LADPW
Santa Clara River Watershed	8	LADPW (8)
Santa Monica Bay Watershed	5	LADPW (4); VCWPD (2)

Source: Los Angeles County Department of Public Works and Los Angeles County Flood Control District 2013, VCWPD 2005

TABLE D-3: GROUNDWATER BASINS

Groundwater Basin	Area (acres)
Santa Clara River Valley - Oxnard Subbasin	58,000
Santa Clara River Valley - Santa Clara River Valley East Subbasin	66,200
Pleasant Valley	21,600
Arroyo Santa Rosa Valley	3,740
Las Posas Valley	42,200
Simi Valley	12,100
Conejo Valley	28,900
Coastal Plain of Los Angeles - Santa Monica Subbasin	32,100
Coastal Plain of Los Angeles - Hollywood Subbasin	10,500
Coastal Plain of Los Angeles - Central Subbasin	177,000
San Fernando Valley	145,000
San Gabriel Valley	154,000
Hidden Valley	2,210
Thousand Oaks Area	3,110
Russell Valley	3,100
Malibu Valley	613
Raymond	26,200

Source: California Department of Water Resources. 2003

TABLE D-4: WATER RECLAMATION PLANTS IN THE STUDY AREA

Agency	Facility(ies)
Los Angeles Department of Water and Power	Tillman Water Reclamation Plant L.A./Glendale Water Reclamation Plant Hyperion Treatment Plant
Sanitation Districts of Los Angeles County	La Canada Water Reclamation Plant
City of Simi Valley	Simi Valley County Sanitation District Water Quality Control Plant
Ventura County Waterworks District #1	Moorpark Wastewater Treatment Plant
Las Virgenes Municipal Water District	Tapia Water Reclamation Facility
Camrosa Water District	Camrosa Water Reclamation Facility
City of Thousand Oaks	Hill Canyon Wastewater Treatment Plant
Camarillo Sanitation District	Camarillo Sanitation District Water Reclamation Plant

Source: Ventura, County of, Resource Management Agency, Planning Division

FEDERALLY THREATENED AND ENDANGERED PLANTS

Braunton's milk vetch (FE)

Braunton's milk vetch (*Astragalus brauntonii*) is associated with chaparral and coastal sage scrub habitats. It is endemic to only three counties in southern California: Ventura, Los Angeles, and Orange counties. Within the study area, populations have been found in the Simi Hills (Dayton, Palo Comado, Cheeseboro Canyons, and the Santa Susana Field Laboratory), the hills above Oak Park and Thousand Oaks, and in the Santa Monica Mountains. Braunton's milk vetch is a perennial herb that normally lives 3 to 5 years. It typically blooms from January to August. Its habitat consists of ancient marine sediments, creating shallow, saline soils high in calcium and low in nitrogen and potassium. The plant is not found in valley or foothill grasslands, preferring ridges and saddles, though it does germinate well in disturbed, weedy areas, especially along well-traveled, compacted trails and power line easements. Populations vary in size from a handful of individuals up to 2000 individual plants at a few sites (Landis 2007). Within the study area there are approximately a dozen sites designated by USFWS as critical habitat for Braunton's milkvetch. Ten of these are in the Simi Hills and two are in the Santa Monica Mountains.

California Orcutt Grass (FE)

California Orcutt grass (*Orcuttia california*) is an annual grass associated with vernal pool systems in Los Angeles, Ventura, Riverside, Orange and San Diego Counties. Listed as endangered by both federal and state governments, this species is in decline. Specimens have been located in the upper Stanta Clara watershed, the Simi Hills, and the northern portion of the Conejo Mountain / Las Posas Hills area (CDFG 2012). Threats include habitat loss and degradation due to urban and agricultural development, livestock grazing, off-road vehicle use, trampling, and nonnative invasive plants, and other factors (USFWS 1998).

Lyon's pentachaeta (FE)

Lyon's pentachaeta (*Pentachaeta lyonii*) is found on clay soils in ecotonal areas between grasslands and shrublands. It occupies pocket grassland sites that intergrade with shrublands, as well as the edges of roads and trails. This endemic sunflower is narrowly localized with a highly fragmented and discontinuous 15-mile distribution in the Santa Monica Mountains and the Conejo Mountain area (Montclef Ridge). This set of discontinuous areas has been designated critical habitat for this species. It is threatened by urban development, competition with nonnative species, loss of contiguous habitat for potential pollinators, fuels modification (by disking or mowing), fire suppression activities, and trampling. Five of the ten largest populations are on public lands managed by the National Park Service, the Las Virgenes Municipal Water District and the Conejo Open Space Conservation Agency. The remaining populations are on private land, where they face considerable threats. Currently, less than 30% of the sites where this plant is found are protected (USFWS 2008b).

Nevin's barberry (FE)

Nevin's barberry (*Berberis nevinii*) is an evergreen shrub in the barberry family that is endemic to southern California. This species occurs in scattered locations in association with alluvial scrub, chaparral, coastal sage scrub, oak woodland, and/or riparian scrub or woodland (USFWS 2008b). In the study area it is located primarily in the Verdugo Mountains (CDFG 2012). Another detection in Griffith Park may be natural or introduced (Harris 2011). Threats include habitat loss and degradation due to development, brush clearing, road maintenance, nonnative invasive plants, and off-road vehicle use (USFWS 2008a).

Salt marsh bird's beak (FE)

Salt marsh bird's beak (*Chloropyron maritimum* ssp. *maritimum*) is a hemiparasitic annual found in coastal salt marshes with high tidal influxes in southern and central California and northern Baja California. Its distribution is naturally patchy, although it was historically found in inland salt marshes and a greater number of coastal marshes. Threats include climate change and sea level rise, invasive nonnative plants, recreational use, and issues with the genetics and breeding among the remaining small disjointed populations (USFWS 2009b). This species occurs in Santa Monica Mountains National Recreation Area at Mugu Lagoon (CDFG 2012).

Slender-horned spineflower (FE)

Slender-horned spineflower (*Dodecahema leptoceras*) is a small annual in the buckwheat family. Its habitat is rarely flooded, drought prone alluvial benches in southern California. Within the study area, populations occur in the Santa Clara watershed and multiple washes in the lower elevations of the San Gabriel Mountains. Remaining populations are primarily threatened by development projects, flood control activities, mining, and trash dumping (CDFG 2012, USFWS 2010c).

Santa Monica Mountains dudleya (FT)

Santa Monica Mountains dudleya (*Dudleya cymosa* ssp. *ovatifolia*) is found on sedimentary conglomerate rock on canyon bottoms and shaded slopes on the southern slopes of the Santa Monica Mountains. The three known populations are threatened by development, recreational activities, collectors, climate change, stochastic (random) events which could wipe out the small isolated populations, and wildfire suppression activities (USFWS 2009e).

Agoura Hills dudleya (FT)

Agoura Hills dudleya (*Dudleya cymosa* ssp. *agourensis*) is found on exposed west- to northwest-facing volcanic rock outcrops of the Santa Monica Mountains south of the Ventura Freeway in Los Angeles County. This taxa was initially listed as a population of *Dudleya cymosa* ssp. *ovatifolia* (Santa Monica

Mountains dudleya, see previous paragraph), but has since been identified as a distinct subspecies. There are six known occurrences which are considered part of one contiguous population. Threats are the same as those listed for Santa Monica Mountains dudleya. (CDFG 2012, USFWS 2009e).

Conejo dudleya (FT)

Conejo dudleya (*Dudleya parva*) is found on rock outcrops and soils derived from Miocene Conejo volcanics in coastal sage scrub habitats. It is endemic to the study area, growing on about one dozen sites within a discontinuous 10-mile stretch of the Conejo Mountain area centered on Montclef Ridge. This species is threatened by urban development activities, fire suppression, trampling, and illegal collection (USFWS 2009c).

Marcescent dudleya (FT)

Marcescent dudleya (*Dudleya cymosa* ssp. *marcescens*) is a succulent perennial which grows on sheer volcanic rock outcrops. All populations are found in a 15-mile range within SMMNRA, although 7 of the 13 known occurrences are on private land. This succulent is threatened by recreational use, development, and stochastic events (USFWS 2009d, CDFG 2012).

Verity's dudleya (FT)

Verity's dudleya (*Dudleya verity*) grows in a coastal sage scrub habitat on volcanic rock found along a discontinuous 4-mile range in Ventura County south of the Ventura Freeway on north facing slopes near Conejo Mountain. This species is endemic to the study area and is not found within SMMNRA. It is threatened by fire, development, collectors, and a quarry. Only a small portion of the plant's habitat is located on publicly owned land (Ventura County Flood Control District), the rest is in private ownership (USFWS 2009f, CDFG 2012).

San Fernando Valley spineflower (C)

San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*) is a low-growing annual, which was presumed extinct until rediscovered at Laskey Mesa in the Simi Hills in 1999 (USFWS 2013c). It has since been observed at Newhall Ranch in the northern Santa Susana Mountains as well, an area partially within the study area (CDFG 2012). Although it was historically observed in gravelly soils (mostly in washes) in coastal sage scrub, today it occurs in sparsely vegetated areas with soils low in organic content. It is hypothesized that competition from native and nonnative species has excluded it from its previous habitat. Threats include development, cattle grazing, competition with nonnative species, and stochastic events that could eliminate the two remaining small, isolated populations (USFWS 2013c). It is currently listed as endangered by the State of California, but is still a candidate for federal listing.

Spreading navarretia (FT)

Spreading navarretia (*Navarretia fossalis*, also known as Moran's nosegay) was included in the USFWS consultation letter as a species of concern for the study area (USFWS 2011b). The California Natural Diversity Database and USFWS documents do not have any recorded observations of this species within the study area, but it has been found on Cruzan Mesa in the northern Santa Clara River watershed. There is a possibility that this species may be present in suitable habitat in unsurveyed portions of the study area (USFWS 2009h, CDFG 2012).

Ventura Marsh Milk-Vetch (FE)

Ventura marsh milk-vetch (*Astragalus pycnostachyus* var. *lanosissimus*) was included in the USFWS consultation letter as a species of concern for the study area (USFWS 2011b). The California Natural Diversity Database and USFWS documents do not include any records for this species within the study area, but there is a possibility that it exists in unsurveyed areas. It has been reintroduced to five sites in the Oxnard area, and has historically been found on the coast to the north and south of the study area (USFWS 2010a, CDFG 2012).

FEDERALLY THREATENED AND ENDANGERED WILDLIFE

Arroyo toad (FE)

Arroyo toads (*Bufo californicus*) are found in seasonal pools and streams where natural disturbance is common. A highly sensitive species, arroyo toads are known to have one of the most specialized breeding habitat requirements of any amphibian found in California. Shallow breeding pools with slow moving water but sufficient flow to keep sediment in suspension are necessary for successful juvenile development. Outside of the breeding season, the arroyo toad is mostly terrestrial, utilizing a variety of upland habitats and burrowing into sandy soil during the day. The arroyo toad is threatened by habitat destruction and alteration from urban development, agriculture, water control infrastructure, fire, and nonnative species, as well as by the chytrid fungus. In 2009, the USFWS recommended downlisting the arroyo toad to threatened, since the known species range has expanded and conservation management managing known threats to this species, but this has not yet occurred (USFWS 2009a). Within the study area, critical habitat has been designated for two areas: Big Tujunga Creek in the San Gabriel Mountains and a section of the Upper Santa Clara River from Arrastre Canyon to Bee Canyon Creek.

Mountain yellow-legged frog (FE)

Mountain yellow-legged frogs (*Rana muscosa*) are diurnal frogs that occupy shaded streams with cool water from springs or snowmelt. Historically, the mountain yellow-legged frog occurred throughout southern California on both the coastal and desert slopes of the San Gabriel, San Bernardino, San Jacinto, and Palomar mountains. Current surveys show that the frog has disappeared from most of its historical range in southern California. Most of the remaining populations are located in isolated headwater streams in the San Gabriel Mountains (USFWS 2005). Designated critical habitat for the mountain yellow-legged frogs includes creeks in the San Gabriel Mountains east of the study area (USFWS 2006b).

California red-legged frog (FT)

During the wet season, California red-legged frogs (*Rana draytonii*) may be found in a wide variety of both riparian and upland habitats, but are restricted to heavily vegetated riparian areas during the dry season. They require submerged vegetation in ponds or deep, slow moving streams for breeding. Threats to the California red-legged frog include habitat degradation, off-road vehicles, reservoir construction, grazing, nonnative aquatic predators, and water quality. Critical habitat for the red-legged frog includes a portion of Upper Las Virgenes Creek watershed in the Simi Hills, which hosts the southernmost population of the federally threatened California red-legged frog (*Rana draytonii*). The main population of about 50 adults is found in the east fork of Las Virgenes Creek. Annual surveys have revealed evidence of successful reproduction (egg masses and tadpoles). Another population is located in Aliso Canyon in the northern San Gabriel Mountains. A project is currently underway to re-introduce red-legged frogs to historic stream habitat in the Santa Monica Mountains as well (USFWS 2010d, CDFG 2012).

California condor (FT)

California condors (*Gymnogyps californicus*) are among the largest and rarest birds in the world, with a wingspan of up to 9.5 feet. They are scavengers who feed primarily on large mammal carcasses. Suitable habitat for condors includes foothill rangeland and forest in remote areas where the birds can roost and nest in tall trees and on cliffs. After decades of decline, a population crash in the late 1980's left nine known individuals in the wild, all of whom were captured and enrolled in a captive breeding program. The first captive-reared birds were released into the wild in 1992, with additional releases over the following years. In 2012, 235 individuals were known in the wild, including approximately 60 successful breeding pairs, with an additional 169 individuals in captivity. The captive breeding program is ongoing and continues to release additional individuals into the wild. Major historic threats leading to the species' decline included direct killing and indirect poisoning from pest control, DDT, and lead shot. Today lead poisoning continues to be a major source of mortality. The Santa Susana and San Gabriel Mountains lie within the known range of the current California population of California condors (USFWS 2013a).

Coastal California gnatcatcher (FT)

The coastal California gnatcatcher (*Polioptila californica californica*) is an insect-eating non-migratory songbird that typically occurs in or near coastal sage scrub, alluvial fan sage scrub, southern coastal bluff scrub, and coastal sage chaparral. This subspecies is restricted to coastal southern California and northwestern Baja California, Mexico. Considered locally common in the mid-1940s, by the 1960s the gnatcatcher experienced a significant population decline in the United States. This has been attributed to widespread destruction of its habitat due to development and increased fire frequency. Critical habitat for the coastal California gnatcatcher includes the Santa Susana Mountains and parts of the western San Gabriel Mountains. Coastal California gnatcatchers have recently also been observed in the Upper Santa Clara River area and the northwestern Santa Monica Mountains (near California State University Channel Islands) where they have not previously been observed, which may indicate a range expansion (USFWS 2010b, USFWS 2011b).

California least tern (FE)

The California least tern (*Sterna antillarum browni*) is a migratory shorebird which breeds in a limited area along the California and Baja California coast. Terns forage, roost, nest, and migrate in colonies of around 25 breeding pairs. Nests consist of an indentation on barren ground near water. Feeding takes place in shallow estuaries and lagoons, and consists primarily of small fish. Since listing, the least tern population has gradually increased, but its habitat is still degraded throughout its range and threats from development, predation, invasive species, and natural disasters remain. The 2006 review of this species by USFWS recommended downlisting to federally threatened status, but this has not been implemented. This species has not been recorded within the study area, but suitable habitat may exist. It is known to nest along the coast north and south of the study area (USFWS 2006a).

Southwestern willow flycatcher (FE)

The southwestern willow flycatcher (*Empidonax trailii extimus*) is a small insectivorous migratory bird that makes its home in dense riparian areas in the southwestern United States. Nesting takes place primarily in thick riparian stands of willows or coast live oaks. Major threats to this species include nest parasitism by the brown-headed cowbird and habitat destruction from urban, recreational, agricultural, and water diversion development. The study area lies within the Coastal California Recovery Unit, where most populations are quite small. The only known population in the study area is found in Soledad Canyon, a tributary of the Upper Santa Clara River (USFWS 2002, CDFG 2012).

Least Bell's vireo (FE)

The least Bell's vireo (*Vireo bellii pusillus*) is a migratory songbird which inhabits riparian woodlands with tall trees and shorter thick shrubs. When the species was listed in 1986, loss of riparian habitat, urbanization, and predation by nonnative species were the primary threats. Since then, loss of riparian habitats has been halted and is beginning to be reversed through restoration projects. Although nest predation from nonnative cowbirds is a continuing issue, the least Bell's vireo population has increased ten-fold from 1986 to 2006, prompting the USFWS to recommend downgrading the species to threatened status (although this recommendation has not yet been implemented) (USFWS 2006c). Riparian areas within the study area contain suitable habitat for the least Bell's vireo, and designated critical habitat includes a stretch of the Santa Clara

River which skirts the study are just north of the Santa Susana Mountains. Within the study area, this species has primarily been observed in the San Gabriel Foothills, the Verdugo Mountains, and Griffith Park. In recent years, the least Bell's vireo has expanded its range, and was observed for the first time in the Conejo Mountain / Las Posas Hills area in 2009 and 2010 (CDFG 2012, USFWS 2011b).

Light-footed clapper rail (FE)

The light-footed clapper rail (*Rallus longirostris levipes*) is a non-migratory bird which inhabits tidal marshes and lagoons in southern California and northern Baja California. It feeds primarily on marsh invertebrates in shallow water and mudflats and nests in adjacent vegetation. Wholesale habitat destruction has ceased since this species was listed due to new laws and regulations, but ongoing threats include stochastic impacts and habitat degradation due to contaminant runoff, sea-level rise, and dredging. The light-footed clapper rail has been observed just outside the study area in Mugu Lagoon (USFWS 2009g).

Western snowy plover (FT)

The western snowy plover (*Charadrius alexandrinus nivosus*) is a small shorebird which nests on open, sandy beach habitat. The Pacific Coast population, defined as individuals who nest within 50 miles of the Pacific Coast of the United States and northern Mexico, was listed as threatened by the USFWS in 1993. Major threats include habitat destructions or modification from development and nonnative species, predation, and human disturbance to breeding birds (USFWS 2007a). Critical habitat has been established on several beaches along the southern California coast, including two within the study area.

Western yellow-billed cuckoo (C)

The western yellow-billed cuckoo (*Coccyzus americanus*) is a migratory songbird which requires large blocks of riparian habitat for breeding. Cottonwood or willow woodlands are preferred. Historically, it was locally common and widespread in California, Arizona, Oregon and Washington, and was found in scattered riparian areas throughout the rest of the western U.S. Today it is found throughout its historic range, but in fewer locations and with smaller population sizes. The primary threat to this species is loss or alteration of riparian habitat from development, flood control, agriculture, and nonnative invasive species. Western yellow-billed cuckoos have been observed along the lower Santa Clara River north of the study area (USFWS 2011d, CDFG 2012).

Southern steelhead (FE)

Southern steelhead (*Oncorhynchus mykiss*) are winter-run steelhead whose native habitat occurs in basins along the southern California coast. Steelhead require quality freshwater, marine, and estuarine ecosystems to support a healthy population, and therefore serve as an important indicator of watershed health. The study area is part of the Southern California Coast Evolutionarily Significant Unit (ESU), a distinctive group of Pacific salmon, steelhead, or sea-run cutthroat trout. The Southern California Coast ESU is at greater risk of extinction than any of the other 15 ESUs, and is the only federally endangered ESU. The major threat to southern steelhead is major habitat modification or blockage of streams by flood control, urban development, and other factors. Southern steelhead were historically reported from the Los Angeles River, but are now extirpated from this system. Steelhead still use the Santa Clara River and its tributaries for spawning and rearing, but critical habitat north and west of the study area. Topanga Canyon, Malibu Creek, and Arroyo Sequit contain the known poulations of steelhead within the study area; all three of these creeks are designated critical habitat (NOAA 2005, 2011).

Tidewater goby (FE)

The tidewater goby (*Eucyclogobius newberryi*) is a small fish which inhabits brackish lagoons and estuaries along the California coast. It is tolerant of a wide range of salinities, including pure seawater, but is mainly found in the less-saline upper reaches of estuaries. It primarily inhabits the lagoons and estuaries of major drainages with perennial freshwater flow. Individuals rarely leave their home estuary, but there is occasional movement, primarily between estuaries within 10 miles of each other. The genetics of this species is currently being studied, and may result in the division of this species into multiple new species. Major threats at the time of listing included habitat destruction and drought. Current regulations prohibit large-scale destruction of coastal habitat, but habitat alteration due to development, flood control, freshwater diversions, and human-caused breaching of coastal lagoons continues to be a threat. Since listing in 1994, the number of occupied lagoons and estuaries has doubled, indicating that the species may be more resilient to drought than previously thought. The USFWS has recommended potential downlisting of the tidewater goby to federally threatened status, pending further review of the species taxonomy (USFWS 2007b). Critical habitat for the tidewater goby has been designated in the study area in the estuaries and lagoons of Big Sycamore Canyon, Arroyo Sequit, Zuma Canyon, Malibu Creek, and Topanga Creek (USFWS 2013b).

Unarmored threespine stickleback (FE)

The unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*) is a small, scaleless, native fish that resides in slow water creeks along the California coast. They were once common in Los Angeles-area watersheds, but today are restricted to just a handful of streams. Within the study area the stickleback is found in the Upper Santa Clara River and its tributary Soledad Canyon.Threats include habitat loss through stream channelization, increased water turbidity, introduction of nonnative competitors or predators, water pollution, steam flow alterations, hybridization with related species, and stochastic extinction (USFWS 2009i).

Santa Ana sucker (FT)

The Santa Ana sucker (*Catostomuss antaanae*) is endemic to the Los Angeles River, the San Gabriel River, and the Santa Ana River. Habitat preferences include clean, clear, and relatively cool perennial streams of varying width and depth with a mix of substrates including sand, gravel, cobble, and boulders. This species is now restricted to three noncontiguous populations in Big Tujunga Creek (within the study area), the San Gabriel River, and the Santa Ana River. A population is also located in the Santa Clara River watershed, but is not considered part of the listed species because it is presumed to be an introduced population and is hybridizing with another species. Threats to the Santa Ana sucker include urbanization, steam flow alterations , water diversions, dams, recreation, introduced predators, and population fragmentation and associated stochastic impacts (USFWS 2004, 2011c).

Riverside fairy shrimp (FE)

The Riverside fairy shrimp (*Streptocephalus woottoni*) is a small (under 1 inch) aquatic crustacean endemic to vernal and other ephemeral pools in southern California and northern Baja California. The species survives drying ephemeral water sources as a cyst capable of withstanding high temperatures and extreme drought. When water fills the pool, the cyst hatches and the shrimp mature and reproduce within 7 to 8 weeks. Drying of the pool is obligatory for the successful hatching of the cysts. Primary threats are human disturbance (particularly OHV use by recreational users, law enforcement, and military), pollution, and nonnative plants. Within the study area, Tierra Rejada Preserve, east of the Simi Valley, is designated critical habitat for this species (CDFG 2012, USFWS 2008c). Riverside fairy shrimp have also been observed at Golden Valley Ranch, south of the Upper Santa Clara River (LADRP 2012a).

Vernal pool fairy shrimp (FT)

Vernal pool fairy shrimp (*Branchinecta lynchi*) are small aquatic crustaceans whose habitat is limited to cool-water vernal pools and similar ephemeral water bodies in Oregon and California. Similar to the Riverside fairy shrimp, this species survives long dry periods as a cyst, hatching when water fills the pool. Primary threats include habitat alteration, destruction and fragmentation of populations due to agriculture, grazing, development, invasive plants, contaminant run-off, climate change, and altered hydrology. This species has been observed at Golden Valley Ranch on the south side of the Upper Santa Clara River Valley (USFWS 2007c, Juhasz 2011).

Conservancy fairy shrimp (FE)

Conservancy fairy shrimp (*Branchinecta conservatio*) was included in the USFWS consultation letter as a species of concern for the study area (USFWS 2011b). CNDDB and USFWS documents do not include any records for this species within the study area, but there is a possibility that it inhabits unsurveyed ephemeral pools. The nearest documented location of this species to the study area is in the Los Padres National Forest in Ventura County (CDFG 2012, USFWS 2012).

Mountain Plover

When the USFWS wrote their consultation letter in February 2011 (USFWS 2011b), the Mountain plover (*Charadrius montanus*) was included as a proposed species for federal designation, but this proposal has since been withdrawn (USFWS 2011a).

TABLE D-5: IMPERILED VEGETATION COMMUNITIES

Alliance Name	Global Rank	State Rank	Documented Study Area Locations
Bigcone Douglas-fir forest	G3	S3	Upper Santa Clara River
Black cottonwood forest	G5	S3	Santa Susana Mountains
Black willow thickets	G4	S3	Upper Santa Clara River
Bush monkeyflower scrub	G3	S3?	Verdugo Mountains/San Rafael Hills
California bay forest	G4	S3	Verdugo Mountains/San Rafael Hills, Griffith Park
California brittlebush scrub	G4	S3	Verdugo Mountains/San Rafael Hills, Upper Santa Clara River, San Gabriel Foothills, Griffith Park
California sycamore woodlands	G3	S3	Upper Santa Clara River, Verdugo Mountains/San Rafael Hills, Santa Monica Mountains, Griffith Park
California Walnut Woodland	G2	S2.1	Los Angeles River, Santa Monica Mountains, Santa Susana Mountains, Simi Hills
Chamise-white sage chaparral	G3	S3	Verdugo Mountains/San Rafael Hills, Upper Santa Clara River, San Gabriel Foothills, Griffith Park
Cismontane Alkali Marsh	G1	S1.1	Santa Susana Mountains
Clustered tarweed fields	G3?	S3?	Upper Santa Clara River
Coastal sage chaparral scrub	G3	S3.2	Santa Monica Mountains
Foothill needlegrass grassland	G3?	S3?	Upper Santa Clara River, Santa Susana Mountains
Fremont cottonwood forest	G4	S3	Upper Santa Clara River, Santa Susana Mountains
Freshwater swamp	G2	S2.2	Santa Monica Mountains
Giant wild rye grassland	G3	S3	Upper Santa Clara River, Santa Susana Mountains
Hairy leaf ceanothus chaparral	G3	S3	San Gabriel Foothills
Holly leaf cherry chaparral	G3/2	S3/2	Verdugo Mountains/San Rafael Hills, Upper Santa Clara River, San Gabriel Foothills, Griffith Park
Maritime succulent scrub	G2	S1.1	Santa Monica Mountains
Narrowleaf goldenbush scrub	G3	S3?	Upper Santa Clara River, Santa Susana Mountains
Nodding needlegrass grassland	G4	S3?	Upper Santa Clara River, Santa Susana Mountains
Purple needlegrass grassland	G4	S3?	Upper Santa Clara River, Santa Susana Mountains
Riversidian Alluvial Fan Sage Scrub	G1	S1.1	San Gabriel Mountains and Foothills, Upper Santa Clara River
Sawtooth goldenbush scrub	G3	S3	Santa Susana Mountains
Scalebroom scrub	G3	S3	Upper Santa Clara River, Santa Susana Mountains
Southern Coastal Salt Marsh	G2	S2.1	Santa Monica Mountains
Southern Cottonwood Willow Riparian Forest	G3	S3.2	Los Angeles River, San Gabriel Mountains, Upper Santa Clara River, Santa Susana Mountains
Southern Mixed Riparian Forest	G2	S2.1	San Gabriel Mountains and Foothills, Santa Susana Mountains
Southern Riparian Scrub	G3	S3.2	Conejo Mountain/Las Posas Hills, Santa Monica Mountains, Santa Susana Mountains, San Gabriel Mountains and Foothills
Southern Willow Scrub	G3	S2.1	Conejo Mountain/Las Posas Hills, Santa Susana Mountains, Upper Santa Clara River
Thick leaf yerba santa scrub	G3	S3	Upper Santa Clara River
Valley Needlegrass Grassland	G3	S3.1	Conejo Mountain/Las Posas Hills, Santa Monica Mountains, Simi Hills, Griffith Park
Valley Oak Woodland	G3	S2.1	Conejo Mountain/Las Posas Hills, Santa Monica Mountains, Santa Susana Mountains, Simi Hills
Walnut Forest	G1	S1.1	Arroyo Seco
White sage scrub	G4	S3	Verdugo Mountains/San Rafael Hills, Upper Santa Clara River, San Gabriel Foothills

Sources: CDFG 2012, LADRP 2012a

Notes: Global and state ranks indicate alliance imperilment, as measured by rarity, trends, and threats at both a global and state scale. Alliances with a global or state rank of 3 or below are considered highly imperiled. Rankings are determined under NatureServe's Hertiage Methodology (the accepted standard by the California Department of Fish and Game, California Native Plant Society, and the California Manual of Vegetation) (NatureServe 2013).

? indicates alliances for which there is insufficient data for a final ranking, but existing information points towards the rank listed.

This list includes communities named under both the California Manual of Vegetation (Sawyer et al. 2009) scheme and the California Natural Communities list (CDFG 2010). The California Natural Communities list is based on the California Manual of Vegetation, but some subtle differences in names exist. To the extent possible, duplicates from multiple sources have been removed. Community-level vegetation information was not available for many portions of the study area. Additional rare plant communities may be present.

TABLE D-6: RARE PLANTS

Scientific Name	Common Name	Federal Status	State Status	CNPS Ranking	Documented Study Area Locations
Arctostaphylos glandulosa ssp. *gabrielensis***	San Gabriel manzanita	None	None	1B.2	San Gabriel Mountains
*Astragalus brauntonii***	Braunton's milk-vetch	FE	None	1B.1	Santa Monica Mountains, Santa Susana Mountains, San Gabriel Mountains and Foothills
Atriplex coulteri	Coulter's saltbrush	None	None	1B.2	Santa Monica Mountains
Atriplex parishii	Parish's brittlescale	None	None	1B.1	Santa Monica Mountains
Atriplex serenana var. *davidsonii*	Davidson's saltscale	None	None	1B.2	Santa Monica Mountains
Baccharis plummerae ssp. *plummerae***	Plummer's baccharis	None	None	4.3	Santa Monica Mountains
*Baccharis malibuensis***	Malibu baccharis	None	None	1B.1	Santa Monica Mountains
*Berberis nevinii***	Nevin's barberry	FE	CE	1B.1	Verdugo Mountains / San Rafael Hills, Santa Monica Mountains, San Gabriel Mountains and Foothills
Calandrinia breweri	Brewer's calandrinia	None	None	4.2	Verdugo Mountains / San Rafael Hills, Santa Monica Mountains
California macrophylla	round-leaved filaree	None	None	1B.1	Conejo Mountain/Las Posas Hills, Santa Monica Mountains, Simi Hills, Arroyo Seco
*Calochortus catalinae***	Catalina mariposa-lily	None	None	4.2	Santa Monica Mountains, Upper Santa Clara River
Calochortus clavatus var. *clavatus**	club-haired mariposa lily	None	None	4.3	Upper Santa Clara River
Calochortus clavatus var. *gracilis***	slender mariposa-lily	None	None	1B.2	Santa Monica Mountains, Simi Hills, Santa Susana Mountains, Upper Santa Clara River, Verdugo Mountains / San Rafael Hills
*Calochortus fimbriatus**	Late-flowered mariposa lily	None	None	1B.2	Santa Susana Mountains
Calochortus palmeri var. *palmeri***	Palmer's mariposa-lily	None	None	1B.2	San Gabriel Mountains, Santa Susana Mountains
*Calochortus plummerae***	Plummer's mariposa-lily	None	None	4.2	Throughout study area
*Calystegia peirsonii***	Pierson's morning glory	None	None	4.2	Santa Susana Mountains
Camissonia lewisii	Lewis' evening-primrose	None	None	3	Santa Monica Mountains
*Castilleja gleasoni***	Mt. Gleason paintbrush	None	CR	1B.2	San Gabriel Mountains
Centromadia parryi ssp. *australis (=Hemizonia parryi* ssp. *australis)*	southern tarplant	None	None	1B.1	Conejo Mountain/Las Posas Hills, Santa Monica Mountains, San Gabriel Mountains and Foothills
Cercocarpus betuloides var. *blancheae***	island mountain-mahogany	None	None	4.3	Santa Monica Mountains
Chaenactis glabriuscula var. *orcuttiana*	Orcutt's pincushion	None	None	1B.1	Santa Monica Mountains
Chloropyron maritimum ssp. *maritimum*	salt marsh bird's-beak	FE	CE	1B.2	Mugu Lagoon
Chorizanthe parryi var. *fernandina***	San Fernando Valley spineflower	FC	CE	1B.1	Santa Susana Mountains, Simi Hills, San Gabriel Mountains and Foothills
Chorizanthe parryi var. *parryi***	Parry's spineflower	None	None	1B.1	Santa Monica Mountains, San Gabriel Mountains and Foothills
Cladium californicum	California sawgrass	None	None	2.2	Verdugo Mountains / San Rafael Hills
Convolvulus simulans	Clay bindweed	None	None	4.2	Santa Monica Mountains
*Deinandra minthornii ** (=Hemizonia minthornii)*	Santa Susana tarplant	None	CR	1B.2	Santa Monica Mountains, Santa Susana Mountains, Simi Hills
Delphinium parryi ssp. *blochmaniae***	dune larkspur	None	None	1B.2	Conejo Mountain/Las Posas Hills, Santa Monica Mountains
Didymodon norrisii	Norris' beard moss	None	None	2B.2	Santa Monica Mountains
Dithyrea maritima	beach spectaclepod	None	CT	1B.1	Santa Monica Mountains

TABLE D-6: RARE PLANTS (continued)

Scientific Name	Common Name	Federal Status	State Status	CNPS Ranking	Documented Study Area Locations
*Dodecahema leptoceras***	slender-horned spineflower	FE	CE	1B.1	Upper Santa Clara River, San Gabriel Mountains and Foothills
Dudleya blochmaniae ssp. *blochmaniae*	Blochman's dudleya	None	None	1B.1	Conejo Mountain/Las Posas Hills, Santa Monica Mountains, Simi Hills
Dudleya cymosa ssp. *agourensis***	Agoura Hills dudleya	FT	CSC	1B.2	Santa Monica Mountains
Dudleya cymosa ssp. *marcescens***	marcescent dudleya	FT	CR	1B.2	Santa Monica Mountains
Dudleya cymosa ssp. *ovatifolia***	Santa Monica dudleya	FT	None	1B.2	Santa Monica Mountains
*Dudleya multicaulis***	many-stemmed liveforever	None	None	1B.2	Santa Monica Mountains, Simi Hills, San Gabriel Mountains and Foothills
*Dudleya parva***	Conejo dudleya	FT	None	1B.2	Conejo Mountain/Las Posas Hills
*Dudleya verity***	Verity's dudleya	FT	None	1B.2	Conejo Mountain/Las Posas Hills, Santa Monica Mountains
*Eriogonum crocatum***	Conejo buckwheat	None	CR	1B.2	Conejo Mountain/Las Posas Hills, Santa Monica Mountains
*Galium grande***	San Gabriel bedstraw	None	None	1B.2	San Gabriel Mountains
Helianthus nuttallii ssp. *parishii***	Los Angeles sunflower	None	None	1A	San Gabriel Mountains
Horkelia cuneata var. *puberula***	mesa horkelia	None	None	1B.1	San Gabriel Foothills, Verdugo Mountains / San Rafael Hills, Arroyo Seco, Los Angeles River, Santa Monica Mountains
Imperata brevifolia	California satintail	None	None	2B.1	San Gabriel Mountains
Isocoma menziesii var. *decumbens*	decumbent goldenbush	None	None	1B.2	Santa Monica Mountains
*Juglans californica***	California black walnut	None	None	4.2	Verdugo Mountains / San Rafael Hills, Santa Monica Mountains , San Gabriel Foothills, Santa Susana Mountains
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	None	None	1B.2	Santa Monica Mountains, Simi Hills, Arroyo Seco
*Lepechinia fragrans***	fragrant pitcher sage	None	None	4.2	Santa Monica Mountains
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	None	None	4.3	San Gabriel Mountains and Foothills, Griffith Park
Lilium humboldtii ssp. *ocellatum***	ocellated Humboldt lily	None	None	4.2	Upper Santa Clara River
*Linanthus concinnus***	San Gabriel linanthus	None	None	1B.2	San Gabriel Mountains
*Malacothamnus davidsonii**	Davidson's bushmallow	None	None	1B.2	San Gabriel Mountains and Foothills, Verdugo Mountains / San Rafael Hills, Santa Susana Mountains
Monardella hypoleuca ssp. *hypoleuca***	white-veined monardella	None	None	1B.3	Santa Monica Mountains
*Muhlenbergia californica***	California muhly	None	None	4.3	San Gabriel Mountains
Nama stenocarpum	mud nama	None	None	2B.2	Santa Monica Mountains
*Navarretia ojaiensis***	Ojai navarretia	None	None	1B.1	Santa Monica Mountains
*Navarretia prostrata**	prostrate vernal pool navarretia	None	None	1B.1	Los Angeles River
*Nolina cismontana***	Chaparral nolina	None	None	1B.2	Santa Susana Mountains, Simi Hills
Opuntia basilaris var. *brachyclada***	short-joint beavertail	None	None	1B.2	San Gabriel Mountains and Foothills, Upper Santa Clara River
Orcuttia californica	California Orcutt grass	FE	CE	1B.1	Santa Susana Mountains, Upper Santa Clara River, Santa Monica Mountains, Simi Hills, Conejo Mountain / Las Posas Hills
Orobanche valida ssp. *valida**	Rock Creek broomrape	None	None	1B.2	San Gabriel Mountains
*Pentachaeta lyonii***	Lyon's pentachaeta	FE	CE	1B.1	Santa Monica Mountains, Conejo Mountains / Las Posas Hills
*Phacelia hubbyi***	Hubby's phacelia			4.2	Santa Monica Mountains, Griffith Park

TABLE D-6: RARE PLANTS (continued)

Scientific Name	Common Name	Federal Status	State Status	CNPS Ranking	Documented Study Area Locations
Piperia cooperi	Cooper's rein orchid	None	None	4.2	Verdugo Mountains / San Rafael Hills, Griffith Park
*Piperia michaelii**	Michael's rein orchid	None	None	4.2	Verdugo Mountains / San Rafael Hills
Pseudognaphalium leucocephalum	white rabbit-tobacco	None	None	2B.2	San Gabriel Mountains and Foothills, Verdugo Mountains / San Rafael Hills, Arroyo Seco
Quercus durata var. *gabrielensis***	San Gabriel Mountains leather oak	None	None	4.2	Verdugo Mountains / San Rafael Hills, Griffith Park
Senecio aphanactis	Chaparral ragwort	None	None	2B.2	Santa Monica Mountains, Conejo Mountain / Las Posas Hills
Sidalcea neomexicana	salt spring checkerbloom	None	None	2B.2	Santa Monica Mountains
*Stylocline masonii**	Mason's neststraw	None	None	1B.1	Upper Santa Clara River
Suaeda esteroa	estuary seablite	None	None	1B.2	Point Mugu
*Symphyotrichum greatae***	Greata's aster	None	None	1B.3	San Gabriel Mountains and Foothills, Arroyo Seco
Thelypteris puberula var. *sonorensis*	Sonoran maiden fern	None	None	2B.2	San Gabriel Mountains and Foothills, Santa Monica Mountains
*Tortula californica**	California screw moss	None	None	1B.2	Santa Monica Mountains

Sources: CDFG 2012, LADRP 2000, Cooper 2010, NASA 2013, pers. comm. Tarja Sagar 2014, Soza et al. in press.

Status codes:
* Endemic to California
** Endemic to southern California (Los Angeles, Ventura, San Bernardino, Riverside, Imperial, Orange, San Diego, Santa Barbara, Kern, and San Luis Obispo Counties)
CE=State Endangered
CT= State Threatened
CR= State Listed Rare
FE = Federal Endangered
FT = Federal Threatened
CNPS=California Native Plant Society. The California Native Plant society has developed an inventory of rare and endangered plants that are native to California.
1B= Plants considered rare, threatened, or endangered in California and elsewhere. This includes all plants eligible for state listing and those that must be considered while preparing CEQA documents.
2= Plants considered rare in California but more common elsewhere. This includes all plants eligible for state listing and those that must be considered while preparing CEQA documents.
3= More information is need for this plant
4= Limited distribution (Watch List)
The number after the decimal indicates the degree of threat currently facing this species, with 0.1 being the most threatened.

TABLE D-7: RARE ANIMALS

Scientific Name	Common Name	Federal Status	State Status	Documented Study Area Locations
Amphibians				
Anaxyrus californicus	arroyo toad	Endangered	SSC	San Gabriel Mountains, Upper Santa Clara River, Simi Hills
Rana draytonii	California red-legged frog	Threatened	SSC	San Gabriel Mountains, Simi Hills
Rana muscosa	southern mountain yellow-legged frog	Endangered	Endangered	San Gabriel Mountains and Foothills
Spea hammondii	western spadefoot	None	SSC	Santa Susana Mountains, Upper Santa Clara River
Taricha torosa	Coast Range newt	None	SSC	San Gabriel Mountains and Foothills, Santa Monica Mountains, Simi Hills
Reptiles				
Anniella pulchra pulchra	silvery legless lizard	FSS	SSC	Upper Santa Clara River, Verdugo Mountains / San Rafael Hills, Simi Hills, Los Angeles River, Santa Monica Mountains
Charina trivirgata	rosy boa	FSS	None	Upper Santa Clara River, San Gabriel Mountains
Diadophis punctatus modestus	San Bernardino ringneck snake	FSS	None	Santa Monica Mountains, Upper Santa Clara River, Simi Hills
Emys marmorata	western pond turtle	FSS	SSC	Conejo Mountain/Las Posas Hills, Santa Monica Mountains, San Gabriel Mountains and Foothills, Verdugo Mountains/San Rafael Hills, Simi Hills
Lampropeltis zonata (pulchra)	California mountain kingsnake (San Diego population)	FSS	SSC	Santa Monica Mountains, Upper Santa Clara River
Phrynosoma blainvillii	coast horned lizard	FSS	SSC	Throughout study area
Salvadora hexalepis virgultea	coast patch-nosed snake	None	SSC	Santa Monica Mountains
Thamnophis hammondii	two-striped garter snake	None	SSC	San Gabriel Mountains, Upper Santa Clara River, Santa Susana Mountains, Conejo Mountains/Las Posas Hills, Santa Monica Mountains
Birds				
Accipiter cooperii	Cooper's hawk	None	WL	Throughout study area
Accipiter striatus	sharp-shinned hawk	None	WL	Throughout study area
Agelaius tricolor	tricolored blackbird	BCC	SSC	Simi Hills (no recent records)
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	None	WL	Upper Santa Clara River, Simi Hills, Santa Susana Mountains, Santa Monica Mountains
Aquila chrysaetos	golden eagle	BCC	FP, WL	San Gabriel mountains, Santa Monica Mountains, Simi Hills, Santa Susana Mountains
Artemisiospiza belli belli	Bell's sage sparrow	BCC	WL	Upper Santa Clara River
Asio otus	long-eared owl	None	SSC	Upper Santa Clara River
Athene cunicularia	burrowing owl	BCC	SSC	Santa Monica Mountains, Simi Hills, Santa Susana Mountains
Buteo swainsoni	Swainson's hawk	BCC, FSS	Threatened	Santa Monica Mountains, Simi Hills, Upper Santa Clara River
Chaetura vauxi	Vaux's swift	None	SSC	Upper Santa Clara River, found throughout study area during migration
Circus cyaneus	northern harrier	None	SSC	Santa Susana Mountains, Santa Monica Mountains, Simi Hills
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Candidate	Endangered	Santa Susana Mountains, Santa Monica Mountains
Cypseloides niger	black swift	BCC	SSC	San Gabriel Mountains
Dendroica petechia brewsteri	yellow warbler	BCC	SSC	Santa Susana Mountains

TABLE D-7: RARE ANIMALS (continued)

Scientific Name	Common Name	Federal Status	State Status	Documented Study Area Locations
Birds (continued)				
Elanus leucurus	white-tailed kite	None	FP	Conejo Mountain/Las Posas Hills, Upper Santa Clara River, Santa Monica Mountains, Santa Susana Mountains
Empidonax traillii extimus	southwestern willow flycatcher	Endangered	Endangered	Upper Santa Clara River, Santa Susana Mountains
Eremophila alpestris actia	California horned lark	None	WL	Santa Monica Mountains, Santa Susana Mountains, Simi Hills
Falco columbarius	merlin	None	WL	Throughout study area
Falco mexicanus	prairie falcon	BCC	WL	Throughout study area
Falco peregrinus anatum	American peregrine falcon	BCC	WL	Throughout study area
Haliaeetus leucocephalus	bald eagle	BCC, FSS	Endangered	Santa Monica Mountains
Icteria virens	yellow-breasted chat	None	SSC	Santa Susana Mountains
Lanius ludovicianus	loggerhead shrike	BCC	SSC	Santa Monica Mountains, Santa Susana Mountains, Simi Hills
Ixoblychus exilis hesperis	Western least bittern	BCC	SSC	Santa Clara River
Polioptila californica californica	coastal California gnatcatcher	Threatened	SSC	Conejo Mountains/Las Posas Hills, Upper Santa Clara River, Simi Hills, Verdugo Mountains/San Rafael Hills
Riparia riparia	bank swallow	None	Threatened	Santa Monica Mountains
Strix occidentalis occidentalis	California spotted owl	BCC, FSS	SSC	Upper Santa Clara River
Vireo bellii pusillus	least Bell's vireo	Endangered	Endangered	Santa Monica Mountains, Conejo Mountain/Las Posas Hills, Los Angeles River, Arroyo Seco, San Gabriel Mountains and Foothills, Santa Susana Mountains
Mammals				
Antrozous pallidus	pallid bat	FSS	SSC	Upper Santa Clara River, Santa Monica Mountains, Simi Hills, Upper Santa Clara River
Bassariscus astutus	ringtail cat	None	FP	Upper Santa Clara River, Santa Susana Mountains, Santa Monica Mountains
Euderma maculatum	spotted bat	None	SSC	Santa Monica Mountains
Eumops perotis californicus	western mastiff bat	None	SSC	Santa Susana Mountains, Los Angeles River, Verdugo Mountains/San Rafael Hills, Simi Hills, Santa Monica Mountains
Lasiurus blossevillii	western red bat	FSS	SSC	Santa Monica Mountains
Lepus californicus bennettii	San Diego black-tailed jackrabbit	None	SSC	San Gabriel Foothills, Santa Monica Mountains, Santa Susana Mountains
Macrotus californicus	California leaf-nosed bat	FSS	SSC	Santa Susana Mountains, Simi Hills
Neotoma lepida intermedia	San Diego desert woodrat	None	SSC	Conejo Mountains/Las Posas Hills, Santa Monica Mountains, Santa Susana Mountains, Simi Hills, Upper Santa Clara River
Onychomys torridus ramona	southern grasshopper mouse	None	SSC	Verdugo Mountains/San Rafael Hills, Upper Santa Clara River
Taxidea taxus	American badger	None	SSC	Santa Monica Mountains
Fish				
Catostomus santaanae	Santa Ana sucker	Threatened	SSC	San Gabriel Mountains and Foothills, Upper Santa Clara River
Eucyclogobius newberryi	tidewater goby	Endangered	SSC	Santa Monica Mountains
Gasterosteus aculeatus williamsoni	unarmored threespine stickleback	Endangered	Endangered	Upper Santa Clara River
Gila orcuttii	arroyo chub	FSS	SSC	Upper Santa Clara River, Santa Monica Mountains, Verdugo Mountains/San Rafael Hills, Conejo Mountain/Las Posas Hills

TABLE D-7: RARE ANIMALS (continued)

Scientific Name	Common Name	Federal Status	State Status	Documented Study Area Locations
Fish (continued)				
Oncorhynchus mykiss irideus	southern steelhead - southern California DPS	Endangered	SSC	Santa Monica Mountains
Rhinichthys osculus ssp. *3*	Santa Ana speckled dace	None	SSC	San Gabriel Mountains and Foothills
Invertebrates				
Streptocephalus woottoni	Riverside fairy shrimp	Endangered	None	Simi Hills
Branchinecta lynchi	Vernal pool fairy shrimp	Threatened	None	Upper Santa Clara River

Sources: CDFG 2012, CDFG 2011, LADRP 2012a, NASA 2013, pers. comm. Katy Delaney 2014, pers. comm. David Magney 2011.

Status codes:

BCC: USFWS Bird of Conservation Concern. This list identifies bird species at risk of listing under the Endangered Species Act if additional conservation actions are not taken.

SSC: CDFW Species of Special Concern. The California Department of Fish and Wildlife applies this status to animal species not listed under the federal and California Endangered Species Acts that are declining at a rate that might require listing or have historically low population counts.

FP: CDFW Fully Protected. The Fully Protected classification was California's first effort to protect rare species. Most species have since been listed under state and/or federal endangered species acts, but a few remain on this list.

WL: CDFW Watch List. This list identifies bird species of concern which were previously listed as a Species of Special Concern or federal or state Threatened or Endangered species, but are no longer on any of these lists, or which are on the Fully Protected list.

FSS: USFS Sensitive. The U.S. Forest Service applies this status to species which are not listed or proposed to be listed under the Federal Endangered Species Act, but whose population viability is a concern due to reduction of population numbers, density, or habitat.

Note: Species listed in this table only include those listed on the USFWS and CFDW threatened and endangered species lists, the CDFW species of special concern, fully protected, and watch lists, and the USFS sensitive species lists. The following invertebrates found in the study area are not on any of these lists but are considered imperiled on a global (G), national (N), or state (S) scale using the NatureServe Heritage Methodology (NatureServe 2013). The number 1 following the letter indicates critical imperilment, 2 indicates imperilment, and 3 indicates vulnerability.

- *Helminthoglypta venturensis* (Ventura shoulderband) G1QN1
- *Helminthoglypta traskii traskii* (Trask or Peninsular Range shoulderband) G1G2T1S1
- *Helminthoglypta traskii pacoimensis* (Pacoima shoulderband) G1T1S1
- *Helminthoglypta tudiculata convicta* (southern shoulderband) G2G3N2N3
- *Helminthoglypta petricola sangabrielis* (San Gabriel shoulderband) G1
- *Helminthoglypta fontiphila* (Soledad shoulderband) G1S1
- *Coelus globosus* (globose dune beetle) G1S1
- *Carolella busckana* (Busck's gallmoth) G1G3
- *Danaus plexippus* (Monarch butterfly) G5S3
- *Aglaothorax longipennis* (Santa Monica shieldback katydid) G1G2S1S2
- *Trimerotropis occidentiloides* (Santa Monica grasshopper) G1G2S1S2

Inventory of Cultural and Archeological Resources within the Rim of the Valley Corridor that are Listed or Eligible to be Listed in the National Register of Historic Places

TABLE D-8: CULTURAL RESOURCES RELATED TO THE PREHISTORIC PERIOD (Prior to 1542)

Resource Name	Sub-Geographic Area	NPS Themes	Listing/ Evaluation Status
Burro Flats Painted Cave (CA-VEN-1072)	Burro Flats Painted Cave (CA-VEN-1072)	Burro Flats Painted Cave (CA-VEN-1072)	Burro Flats Painted Cave (CA-VEN-1072)
Big Tujunga Prehistoric Archeological Site (CA-LAN-167)	San Gabriel Mountain Foothills	Peopling Places	NRST2
Calleguas Creek (CA-VEN-110)	Santa Monica Mountains	Peopling Places	NR-local (1976)
Humaliwo (CA-LAN-264)	Santa Monica Mountains	Peopling Places	NR-state (1976)
Saddle Rock Pictograph Site (CA-LAN-717)	Santa Monica Mountains	Peopling Places	NHL Eligible (1990)
Talepop (CA-LAN-229)	Santa Monica Mountains	Peopling Places	Under evaluation
Decker Canyon Site Complex (CA-LAN-1326, 1327, 1328)	Santa Monica Mountains	Peopling Places	NRST2
Farpoint Site (CA-LAN-451)	Santa Monica Mountains	Peopling Places	NRST2
Old Santa Susana Stage Road (Prehistoric Village Site, Rockshelter, and Petroglyphs) (CA-LAN-448/449)	Simi Hills/Santa Susana Mountains	Peopling Places	NR-local (1974)
Angeles National Forest Native American prehistoric resources determined eligible: • Alimony Earth Oven #2 (CA-LAN-2129 • Burial Site at Chilao Flats (CA-LAN-1010), • Chilao Creek Midden (CA-LAN-1055) • House Pits at Lower Chilao (CA-LAN-1051) • Lower Alder Creek Terrace Site (CA-LAN-3032) • Old Shortcut Road Prehistoric Site #1 (CA-LAN-3031) • Messenger Campground (CA-LAN-3028) • Sims-Mayer Chilao (CA-LAN-3151) • Snow Saddle (CA-LAN-2123) • Upper Big Tujunga Site (CA-LAN 1359/2249) • Lone Manzanita/Werner Camp (CA-LAN-2807) • Nighthawk Site (CA-LAN-1946)	San Gabriel Mountains	Peopling Places	NRST2

Sources: National Register of Historic Places Database (accessed 2012, 2013); Office of Historic Preservation Record Search, Central Coast Information Center (June 2011); Angeles National Forest, Heritage Resources Database (2011).

Notes: Additional resources in the study area: Hundreds of additional archeological sites have been identified but most have not yet been evaluated.

Status codes: NHL = National Historic Landmark; NR = National Register; NRST2 = Determined eligible for listing in the National Register of Historic Places or California Register

TABLE D-9: CULTURAL RESOURCES RELATED TO THE SPANISH PERIOD (1542-1822)

Resource Name	Sub-Geographic Area	NPS Themes	Listing/ Evaluation Status
Portola Trail Campsite (no. 1), Elysian Park	Los Angeles River	Peopling Places	SHL
Juan Bautista de Anza National Historic Trail	Los Angeles River, Santa Monica Mountains	Peopling Places, Developing the American Economy	NHT (1990)
El Pueblo de Los Angeles Historical Monument (1781) Los Angeles Plaza (1781) Avila Adobe (1818) Plaza Church/ Nuestra Señora La Reina De Los Angeles (1822)	Los Angeles River	Peopling Places, Expressing Cultural Values	NR-state (1972)/SHL
Mission San Fernando Rey De Espana (Convento Building)	San Fernando Valley	Peopling Places, Expressing Cultural Values	NR-state (1988)

Sources: National Register of Historic Places Database (accessed 2012, 2013); Office of Historic Preservation Record Search, Central Coast Information Center (June 2011)

Status codes:
NHT = National Historic Trail; NR = National Register; SHL = California State Historic Landmark.

TABLE D-10: CULTURAL RESOURCES RELATED TO THE MEXICAN PERIOD (1822-1848)

Resource Name	Sub-Geographic Area	NPS Themes	Listing/ Evaluation Status
El Scorpion Ranch	Simi Hills	Peopling Places	Five Views (CDRP 1988)
Old Spanish National Historic Trail	Los Angeles River, San Gabriel Mountain foothills	Developing the American Economy	NHT (2002)
Rancho San Rafael - Catalina Verdugo Adobe; Catalina Adobe	Verdugo Mountains/San Rafael Hills	Peopling Places	NR- state (1976)/SHL
Sepulveda Adobe	Santa Monica Mountains	Peopling Places	NRST2
Oak of the Golden Dream	San Gabriel Mountains	Developing the American Economy	SHL
Simi Adobe-Strathearn House	Simi Valley/Hills	Developing the American Economy	NR- state (1978)/SHL
Rancho El Encino	Los Angeles River	Peopling Places, Developing the American Economy	NR-state (1971)/SHL
El Pueblo de Los Angeles Historical Monument - Lugo Adobe (1840s)	Los Angeles River	Peopling Places	NR-state (1972)/SHL
Gen. Andres Pico Oak Tree Camp Site, Oak Of Peace (1847)	Verdugo Mountains/San Rafael Hills	Shaping the Political Landscape	NRST3
Campo De Cahuenga (1847) - Treaty of Cahuenga	Los Angeles River	Shaping the Political Landscape	SHL
Rancho Camulos (1853)	North of study area (Piru)	Peopling Places, Expressing Cultural Values	NHL (1996)

Sources: National Register of Historic Places Database (accessed 2012, 2013); Office of Historic Preservation Record Search, Central Coast Information Center (June 2011); LSA Associates 2011, CDRP 1988.

Status codes: NHL = National Historic Landmark; NHT = National Historic Trail; NR = National Register; NRST2 = Determined eligible for listing in the national register or California Register; NRST3 = Appears Eligible for NR as an individual property through survey evaluation; SHL = California State Historic Landmark, Five Views = Site included in the California State Historic Preservation survey of ethnic historic site survey.

TABLE D-11: CULTURAL RESOURCES RELATED TO THE AMERICAN PERIOD (1848-Present)

Resource Name	Sub-Geographic Area	NPS Themes	Listing/ Evaluation Status
American Settlement			
El Pueblo de Los Angeles Historical Monument • Pico House (Hotel) (1869-70) • Merced Theatre (1870) • Old Plaza Firehouse (1884) • Los Angeles Chinese American Community (Five Views) • Site of the Los Angeles Massacre (1871)	Los Angeles River	Peopling Places, Expressing Cultural Values	NR-state (1972)/SHL
Minnie Hill Palmer Residence	Simi Hills	Creating Social Institutions and Movements	NR-local (1979)
Agriculture			
Rancho Sierra Vista (1936)	Santa Monica Mountains	Developing the American Economy	NRST3
Bothwell Ranch	Santa Monica Mountains/ Tarzana	Developing the American Economy	NRST3/SurveyLA
Civic/Institutional			
Fire Station No. 76	Santa Monica Mountains	Creating Social Institutions and Movements	NRST3/SurveyLA
Fire Station #84	Santa Monica Mountains	Creating Social Institutions and Movements	NRST3/SurveyLA
Department of Water and Power Coldwater Canyon Pumping Plant	Santa Monica Mountains	Creating Social Institutions and Movements	NRST3/SurveyLA
Department of Water and Power Laurel Canyon Pumping Plant	Santa Monica Mountains	Creating Social Institutions and Movements	NRST3/SurveyLA
Department of Water and Power Distributing Station No. 29	Santa Monica Mountains	Creating Social Institutions and Movements	NRST3/SurveyLA
Clubs and organizations			
Beverly Hills Women's Club	Los Angeles	Creating Social Institutions and Movements	NR-local (2006)
Standard Oil Company; Woman's Building (1914)	Los Angeles River	Creating Social Institutions and Movements	NRST3/SurveyLA
Religious institutions			
Chatsworth Community Church	Los Angeles	Creating Social Institutions and Movements	NRST3
Chautauqua Conference Grounds; Presbyterian Conference Grounds	Santa Monica Mountains/Pacific Palisades	Creating Social Institutions and Movements, Expressing Cultural Values	NRST3/SurveyLA
Pisgah Housing District	Los Angeles	Creating Social Institutions and Movements	NR-local (2007)
St. Saviors Chapel	Los Angeles	Creating Social Institutions and Movements	NRST3
First Jewish site in Los Angeles (Chavez Ravine)	Los Angeles River	Creating Social Institutions and Movements, Expressing Cultural Values	SHL
Recreation and Culture			
Angeles National Forest	San Gabriel Mountains	Creating Social Institutions and Movements, Transforming the Environment	SHL
Crestwood Hills Recreation Center	Santa Monica Mountains	Developing the American Economy	NRST3/SurveyLA
Encino Park	Los Angeles River	Creating Social Institutions and Movements	NRST3
Griffith Park	Los Angeles	Creating Social Institutions and Movements	NRST3
Hansen Dam	Verdugo Mountains	Creating Social Institutions and Movements	NRST3/SurveyLA
Pasadena Arroyo Parks and Recreation District	Arroyo Seco	Creating Social Institutions and Movements	NR-local (2008)

TABLE D-11: CULTURAL RESOURCES RELATED TO THE AMERICAN PERIOD (1848-Present) (continued)

Resource Name	Sub-Geographic Area	NPS Themes	Listing/ Evaluation Status
Recreation and Culture (continued)			
Pasadena Winter Gardens	Arroyo Seco	Creating Social Institutions and Movements	NRST3
Peter Strauss Ranch	Santa Monica Mountains	Creating Social Institutions and Movements	NRST2
The Rose Bowl	Arroyo Seco	Creating Social Institutions and Movements	NHL (1987)
Wattles Mansion And Gardens	Los Angeles	Creating Social Institutions and Movements	NRST3
Santa Monica Looff Hippodrome	Santa Monica	Creating Social Institutions and Movements	NHL (1987)
Sepulveda Basin	Los Angeles River	Creating Social Institutions and Movements	NRST3/SurveyLA
Sportsmen's Lodge	Los Angeles River/San Fernando Valley	Creating Social Institutions and Movements	NRST3/SurveyLA
Sportsmen's Lodge	Los Angeles River/San Fernando Valley	Creating Social Institutions and Movements	NRST3/SurveyLA
Education			
World War I Memorial Flagstaff	Pasadena	Creating Social Institutions and Movements	NRST3
Community Magnet Charter School	Santa Monica Mountains (Bel Air)	Creating Social Institutions and Movements	NRST3/SurveyLA
Florence Nightingale Middle School	Los Angeles River	Creating Social Institutions and Movements	NRST3/SurveyLA
Gaspar de Portola Middle School	Santa Monica Mountains (Tarzana)	Creating Social Institutions and Movements	NRST3/SurveyLA
Roscomare Road Elementary School	Santa Monica Mountains (Bel Air)	Creating Social Institutions and Movements	NRST3/SurveyLA
Visual and Performing Arts/ Entertainment			
Abbey San Encino (Eldstane Abbey)	Los Angeles	Expressing Cultural Values	NRST3
Arnold Schoenberg Residence	Santa Monica Mountains	Expressing Cultural Values	NRST3/SurveyLA
Bella Lewitzky Home and Dance Studio	Santa Monica Mountains	Expressing Cultural Values	NRST3/SurveyLA
Bookstar/Studio City Theater	Los Angeles River/San Fernando Valley	Expressing Cultural Values	NRST3/SurveyLA
CBS Studio Center	Los Angeles River /San Fernando Valley	Expressing Cultural Values	NRST3/SurveyLA
Dawnridge	Santa Monica Mountains	Expressing Cultural Values	NRST3/SurveyLA
Hollywood Boulevard Commercial & Entertainment District	Los Angeles	Expressing Cultural Values	NR-national (1985)
Hollywood Bowl	Santa Monica Mountains	Expressing Cultural Values	NRST2
Hollywood United Methodist Church	Los Angeles	Expressing Cultural Values	NRST2
Joel McCrea Ranch	Thousand Oaks	Expressing Cultural Values	NR-national (1997)
Liberace House	Santa Monica Mountains	Expressing Cultural Values	NRST3/SurveyLA
The Mansion	Santa Monica Mountains	Expressing Cultural Values	NRST3/SurveyLA
Paramount Ranch Cultural Landscape	Santa Monica Mountains	Expressing Cultural Values	NRST2
Theatre West	Santa Monica Mountains	Expressing Cultural Values	NRST3/SurveyLA
The Judson Studios	Arroyo Seco	Expressing Cultural Values	NR-state (1999)
Upper Franklin Canyon Park Historic District	Santa Monica Mountains	Expressing Cultural Values	NR-state (1999)
Will Rogers House	Pacific Palisades	Expressing Cultural Values	NR-national (1971), SHL
William S. Hart County Park	Santa Susana Mountains (Santa Clarita Valley)	Expressing Cultural Values	NRST2

TABLE D-11: CULTURAL RESOURCES RELATED TO THE AMERICAN PERIOD (1848-Present) (continued)

Resource Name	Sub-Geographic Area	NPS Themes	Listing/ Evaluation Status
Architecture, Landscape Architecture, and Urban Design (city locations provided for sub-geographic area)			
10714-10718 1/2 Aqua Vista St Residential Court	Santa Monica Mountains/Studio City	Expressing Cultural Values	SurveyLA/NRST3
1694 Putney Rd	Pasadena	Expressing Cultural Values	NRST3
1880-2160 Canyon Close Rd. (Locate the district this could be a part of)	Pasadena	Expressing Cultural Values	NRST3
1900-2120 N Altadena Rd.	Pasadena	Expressing Cultural Values	NRST3
1955-2115 Fox Ridge Dr.	Pasadena	Expressing Cultural Values	NRST3
213 W. Avenue 37	Los Angeles	Expressing Cultural Values	NRST3
414 Mooresque St	Pasadena	Expressing Cultural Values	NRST3
421 Mooresque St	Pasadena	Expressing Cultural Values	NRST3
5944 Hayes Ave	Los Angeles	Expressing Cultural Values	NRST3
5960 Hayes Ave	Los Angeles	Expressing Cultural Values	NRST3
623 W. Avenue 26	Los Angeles	Expressing Cultural Values	NRST3
A. A. Mitchell House, William Dieterle House	South Pasadena	Expressing Cultural Values	NRST2
Adamson House	Malibu	Expressing Cultural Values	NR-state (1977), SHL
Agnes Avenue Residential Historic District	Los Angeles River/Studio City	Expressing Cultural Values	NRST3/SurveyLA
Andalusia	Los Angeles	Expressing Cultural Values	NR-local (2003)
Azalia Drive Residential Historic District	Santa Monica Mountains/ Tarzana	Expressing Cultural Values	NRST3/SurveyLA
Batchelder House, Garage, Studio/Workshop	Pasadena	Expressing Cultural Values	NR-national (1972), SHL
Bel Air Gardens	Santa Monica Mountains	Expressing Cultural Values	NRST3/SurveyLA
Bernheimer Bldgs, Castle Yamashiro	Los Angeles	Expressing Cultural Values	NRST3
Boathouse Thematic Group	Santa Monica Mountains/ Cahuenga	Expressing Cultural Values	NRST3/SurveyLA
Briarcliff Manor Residential Historic District	Santa Monica Mountains/Studio City	Expressing Cultural Values	NRST3/SurveyLA
Bridge House Historic District	Santa Monica Mountains/ Cahuenga	Expressing Cultural Values	NRST3/SurveyLA
C. E. Toberman Estate	Hollywood	Expressing Cultural Values	NR-local (1983)
Caballero Hills Residential Historic District	Santa Monica Mountains/ Tarzana	Expressing Cultural Values	NRST3/SurveyLA
Cannon Electric Development Co., Plant #1 (1926)	Los Angeles River	Expressing Cultural Values	NRST3
Carroll Avenue, 1300 Block	Los Angeles	Expressing Cultural Values	NR-state (1976)
Casa De Adobe	Los Angeles	Expressing Cultural Values	NRST3
Case Study House #3	Los Angeles	Expressing Cultural Values	NRST3
Case Study House #9 (Entenza House)	Los Angeles	Expressing Cultural Values	NR-local (2013)
Case Study House #10	Pasadena	Expressing Cultural Values	NR-local (2013)
Case Study House #11	Los Angeles	Expressing Cultural Values	NRST3
Case Study House #15	La Canada Flintridge	Expressing Cultural Values	NRST3
Case Study House #16	Los Angeles	Expressing Cultural Values	NR-local (2013)
Case Study House #17	Los Angeles	Expressing Cultural Values	NRST3
Case Study House #18	Los Angeles	Expressing Cultural Values	NR-local (2013)
Case Study House 1950	Pacific Palisades	Expressing Cultural Values	NRST3
Case Study House #20	Pacific Palisades	Expressing Cultural Values	NRST3
Case Study House #21	Los Angeles	Expressing Cultural Values	NR-local (2013)
Case Study House #22	Los Angeles	Expressing Cultural Values	NR-local (2013)
Case Study House #28	Thousand Oaks	Expressing Cultural Values	NR-local (2013)

TABLE D-11: CULTURAL RESOURCES RELATED TO THE AMERICAN PERIOD (1848-Present) (continued)

Resource Name	Sub-Geographic Area	NPS Themes	Listing/ Evaluation Status
Architecture, Landscape Architecture, and Urban Design (city locations provided for sub-geographic area) (continued)			
Charles B. Wellman Residence	Los Angeles	Expressing Cultural Values	NRST2
Chateau Des Fleurs	Los Angeles	Expressing Cultural Values	NRST3
Chateau Marmont	West Hollywood	Expressing Cultural Values	NRST3
Christian Anderson House	Los Angeles	Expressing Cultural Values	NRST3
Clapp House	Pasadena	Expressing Cultural Values	NRST3
Crowell House	Pasadena	Expressing Cultural Values	NRST3
Dahlstrom House	Pasadena	Expressing Cultural Values	NRST3
Dubnoff Residence	Pasadena	Expressing Cultural Values	NRST3
Case Study House #8, Eames House	Pacific Palisades	Expressing Cultural Values	NHL (2006)
East Woodland Hills Estates Historic District	Santa Monica Mountains/ Woodland Hills	Expressing Cultural Values	SurveyLA/NRST3
El Cabrillo	Los Angeles	Expressing Cultural Values	NR-local (2005)
Escalon Drive Residential Historic District	Santa Monica Mountains/Encino Hills	Expressing Cultural Values	SurveyLA/NRST3
Eureka Summit Residential Historic District	Santa Monica Mountains/Studio City	Expressing Cultural Values	SurveyLA/NRST3
Fantasy Cottage Thematic Group	Santa Monica Mountains/Studio City	Expressing Cultural Values	NRST3/SurveyLA
Fargo House	Los Angeles	Expressing Cultural Values	NRST3
Florence Nightingale Middle School	Los Angeles	Expressing Cultural Values	NRST3
Folk Victorian Multifamily Property (1905)	Los Angeles	Expressing Cultural Values	NRST3
Frank, Richard and Mary Alice, House	Pasadena	Expressing Cultural Values	NR-local (2009)
Gamble House	Arroyo Seco	Expressing Cultural Values	NHL (1971)
George R. Kress House	Los Angeles	Expressing Cultural Values	NR-local (1998)
Grand Union Hotel	Newbury Park	Expressing Cultural Values	NR-local (1975)
Hale House	Los Angeles	Expressing Cultural Values	NR-local (1973)
Hayvenhurst Drive Residential Historic District	Santa Monica Mountains/ Tarzana	Expressing Cultural Values	NRST3/SurveyLA
Highland Park Ebell Club	Los Angeles	Expressing Cultural Values	NRST3
Highland--Camrose Bungalow Village	Los Angeles	Expressing Cultural Values	NR-local (1989)
Hixon House #1 & #2	Pasadena	Expressing Cultural Values	NRST3
Home Laundry	Pasadena	Expressing Cultural Values	NR-local (1987)
House at 1015 Prospect Boulevard	Pasadena	Expressing Cultural Values	NR-local (2004)
House at 574 Bellefontaine St.	Pasadena	Expressing Cultural Values	NR-local (1998)
J. Bushard/J. Mesmer/V. Vignes Residence	Los Angeles	Expressing Cultural Values	NRST2
J.R. Pinkham Residence	Los Angeles	Expressing Cultural Values	NRST3
James Daniel Derby House	Glendale	Expressing Cultural Values	NR-state, SHL (1978)
Jeffries Cypress Residential Historic District	Los Angeles River	Expressing Cultural Values	NRST3/SurveyLA
John Kelsey House	Pasadena	Expressing Cultural Values	NRST3
John Thomas Dye School	Santa Monica Mountains	Expressing Cultural Values	NRST3/SurveyLA
Kolb Estate	Beverly Hills	Expressing Cultural Values	NRST3
Kono Kort	Pasadena	Expressing Cultural Values	NRST3
Kubly House	Pasadena	Expressing Cultural Values	NRST3
Leonis Adobe	Santa Monica Mountains	Expressing Cultural Values	NR-local (1975)
Lower Arroyo Seco Historic District	Pasadena	Expressing Cultural Values	NR-state (2005)
Lummis House	Los Angeles	Expressing Cultural Values	NR-state (1971)/SHL

TABLE D-11: CULTURAL RESOURCES RELATED TO THE AMERICAN PERIOD (1848-Present) (continued)

Resource Name	Sub-Geographic Area	NPS Themes	Listing/ Evaluation Status
Architecture, Landscape Architecture, and Urban Design (city locations provided for sub-geographic area) (continued)			
Markham Place Historic District (Arts and Crafts)	Pasadena	Expressing Cultural Values	NR-local (2013)
Marguerita Lane Historic District	Pasadena	Expressing Cultural Values	NR-local (2009)
Marvin House, Captains House	South Pasadena	Expressing Cultural Values	NRST2
Melville C. Branch Residence	Santa Monica Mountains/Pacific Palisades	Expressing Cultural Values	NRST3/SurveyLA
Moraga Drive Apartments	Santa Monica Mountains	Expressing Cultural Values	NRST3/SurveyLA
Moraga Drive Residential Historic District	Santa Monica Mountains	Expressing Cultural Values	NRST3/SurveyLA
Mount Pleasant House	Los Angeles	Expressing Cultural Values	NR-local (1976)
Navy and Marine Corps Reserve Center (1941)	Los Angeles	Expressing Cultural Values)	SHL
Novarro House	Los Angeles	Expressing Cultural Values	NRST3
Old Ranch Road Residential Historic District	Santa Monica Mountains/Pacific Palisades	Expressing Cultural Values	NRST3/SurveyLA
Palisades Elementary School	Santa Monica Mountains/Pacific Palisades	Expressing Cultural Values	NRST3
Palisades High School	Santa Monica Mountains/Pacific Palisades	Expressing Cultural Values	NRST3/SurveyLA
Park Place-Arroyo Terrace Historic District	Pasadena	Expressing Cultural Values	NR-national (2007), SHL
Pegfair Estates Historic District	Pasadena	Expressing Cultural Values	NR-local (2010)
Phillip Fritz Residence	Los Angeles	Expressing Cultural Values	NRST2
Pike, Robert and Barbara, House	Pasadena	Expressing Cultural Values	NR-local (2009)
Platform House Historic District	Santa Monica Mountains/ Sherman Oaks	Expressing Cultural Values	NRST3/SurveyLA
Poppy Peak Historic District	Pasadena	Expressing Cultural Values	NR-local (2009)
Pratt Residence	Beverly Hills	Expressing Cultural Values	NRST3
Prebles Restaurant, Googie (1968)	Los Angeles River	Expressing Cultural Values	NRST3
Quonset Hut , 147 N. Avenue 18 (1946)	Los Angeles River	Expressing Cultural Values	NRST3
Ralphs House	Pasadena	Expressing Cultural Values	NRST3
Redwing-Henshaw Residential Historic District	Santa Monica Mountains/ Tarzana	Santa Monica Mountains/ Pacific Palisades	Expressing Cultural Values
Riviera Ranch Residential Historic District	Santa Monica Mountains/Pacific Palisades	Expressing Cultural Values	NRST3/SurveyLA
Samuel Freeman House	Los Angeles	Expressing Cultural Values	NR-local (1971)
Shirley - Winifred Residential Historic District	Santa Monica Mountains/ Tarzana	Expressing Cultural Values	NRST3/SurveyLA
Sherman Oaks Circle Historic District	Santa Monica Mountains/ Sherman Oaks	Expressing Cultural Values	NRST3/SurveyLA
Southwest Museum	Arroyo Seco	Expressing Cultural Values	NR-national (2004)
Steven's House (Malibu)	Santa Monica Mountains	Expressing Cultural Values	NR-local (2009)
Stratton-Porter Estate	Santa Monica Mountains/BelAir	Expressing Cultural Values	NRST3/SurveyLA
Stone Canyon Road Residential Historic District	Santa Monica Mountains/BelAir	Expressing Cultural Values	NRST3/SurveyLA
Storer House	Los Angeles	Expressing Cultural Values	NR-local (1971)
Tanner House	South Pasadena	Expressing Cultural Values	NRST3
The Havenhurst	Los Angeles	Expressing Cultural Values	NRST3
The Montecito Apartments	Los Angeles	Expressing Cultural Values	NR-local (1985)
Thornton Ladd House/Studio	Pasadena	Expressing Cultural Values	NRST3
Toole House	Pasadena	Expressing Cultural Values	NRST3
UCLA Hannah Carter Japanese Garden	Santa Monica Mountains	Expressing Cultural Values	NRST3/SurveyLA
Valley Wood Road Residential Historic District	Santa Monica Mountains/Encino Hills	Expressing Cultural Values	NRST3/SurveyLA

TABLE D-11: CULTURAL RESOURCES RELATED TO THE AMERICAN PERIOD (1848-Present) (continued)

Resource Name	Sub-Geographic Area	NPS Themes	Listing/ Evaluation Status
Architecture, Landscape Architecture, and Urban Design (city locations provided for sub-geographic area) (continued)			
Villa Bonita	Hollywood	Expressing Cultural Values	NR-local (1986)
Villa De Leon	Los Angeles	Expressing Cultural Values	NRST3
Villa Verde	Pasadena	Expressing Cultural Values	NR-local (1984)
Vista del Arroyo Hotel and Bungalows	Pasadena	Expressing Cultural Values	NR-local (1981)
West Temple Apartments (The Rochester)	Los Angeles	Expressing Cultural Values	NRST3
Whitley Heights Historic District	Los Angeles	Expressing Cultural Values	NR-state (1982)
William Howard Taft High School	Santa Monica Mountains/ Woodland Hills	Expressing Cultural Values	NRST3/SurveyLA
Women's Twentieth Century Club of Eagle Rock (Craftsman)	Los Angeles	Expressing Cultural Values	NR-local (2013)
Woodside Historic District	Santa Monica Mountains/ Woodland Hills	Expressing Cultural Values	NRST3/SurveyLA
Ziegler estate	Los Angeles	Expressing Cultural Values	NR-local (2002)
*Other Individual Properties Identified by SurveyLA It should be noted that another 244 individual properties significant for architectural design and urban planning were identified as potentially eligible for the National Register of Historic Places. Most of these structures are individual homes in the Santa Monica Mountains and San Fernando Valley. They represent an extensive variety of architectural styles including: American Colonial Revival; American Foursquare; Craftsman; Dingbat; Expressionist; French Revival (Norman); Georgian Revival; Googie; Hollywood Regency; Hollywood Regency, Late; Industrial, Utilitarian; Mediterranean Revival; Mission Revival; Modern, Early; Modern, Mid-Century; Moderne, Streamline; Monterey Revival; Pueblo Revival; Queen Anne; Ranch (American Colonial, Cape Cod, Contemporary, Hacienda, Traditional, Romanesque Revival, Spanish Colonial Revival, Storybook, Tudor Revival, Vernacular, Victorian.			
Political Ideas, Cultures, and Theories			
Biddie Mason Homesite	Los Angeles River (just south of study area)	Creating Social Institutions and Movements	Five Views, CDRP 1988
Duran's Showboat Bar (Also known as: Bloody Xmas 1951)	Los Angeles River	Creating Social Institutions and Movements	Five Views, CDRP 1988
Chavez Ravine Site (now Dodger Stadium)	Los Angeles River	Creating Social Institutions and Movements	NRST3 (Five Views)
Merwyn C. Gill House	Pasadena	Creating Social Institutions and Movements	NR-local (2009)
William Mead Homes; Ann Street Project, Public Housing (1942)	Los Angeles River	Creating Social Institutions and Movements	NRST2
Industry (gold mining, petroleum, energy, industry)			
Art's Delicatessen	Los Angeles River/Sam Fernando Valley	Developing the American Economy	NRST3/SurveyLA
California Steel and Cornice Co. Metal Shop (1945)	Los Angeles River	Developing the American Economy	NRST3
Cannon Electric Development Co. Plant No. 1	Los Angeles River	Developing the American Economy	NRST3/SurveyLA
Columbia Mills; Talbert-Whitmore Co, Factory (1885-1945)	Los Angeles River	Developing the American Economy	NRST3
Daylight Paper Factory (1925)	Los Angeles River	Developing the American Economy	NRST3
Department of Water and Power Main Street Facility	Los Angeles River	Developing the American Economy	NRST3/SurveyLA
Frank Fletcher Hill Residence (Union Oil Co.)	Santa Monica Mountains	Developing the American Economy	NRST3/SurveyLA
KGB Studios/Former Paper Products Manufacturing Co.	Los Angeles River	Developing the American Economy	NRST3/SurveyLA
Lawry's International (Los Angeles River Center and Gardens)	Los Angeles River	Developing the American Economy	NRST3/SurveyLA
Kelite Products Plant No. 1	Los Angeles River	Developing the American Economy	NRST3/SurveyLA
Kit Kraft Hobbies	Los Angeles River/Sam Fernando Valley	Developing the American Economy	NRST3/SurveyLA

TABLE D-11: CULTURAL RESOURCES RELATED TO THE AMERICAN PERIOD (1848-Present) (continued)

Resource Name	Sub-Geographic Area	NPS Themes	Listing/ Evaluation Status
Industry (gold mining, petroleum, energy, industry) (continued)			
Lacy Street Production Center	Los Angeles River	Developing the American Economy	NRST3/SurveyLA
Municipal Power Plant (1946– 2000)	Los Angeles River	Developing the American Economy	NRST2
North Hollywood Toyota	Los Angeles River/Sam Fernando Valley	Developing the American Economy	NRST3/SurveyLA
STADCO Fab Shop; Veolia Transportation	Los Angeles River/Sam Fernando Valley	Developing the American Economy	NRST3/SurveyLA
Standard Oil Maintenance Facilities(1920)	Los Angeles River	Developing the American Economy	NRST3
Standard Oil Co. Office, Auto Repair and Machine Shop	Los Angeles River	Developing the American Economy	NRST3/SurveyLA
Well No. 4, Pico Canyon Oil Field	Santa Susana Mountains/ San Fernando	Developing the American Economy	NHL (1966)
Transportation/ Engineering			
Arroyo Seco Parkway Historic District	Arroyo Seco	Developing the American Economy	NR-state
Bridge #53-199r, Figueroa Street Tunnel	Arroyo Seco	Developing the American Economy	NRST3
Bridge #53-200r, Figueroa Street Tunnel	Arroyo Seco	Developing the American Economy	NRST3
Butterfield Overland Trail	Extends through study area	Developing the American Economy	Under Evaluation
Colorado Street Bridge	Arroyo Seco	Developing the American Economy	NR-state (1981), SHL
Girard Reservoir	Santa Monica Mountains/ Woodland Hills	Developing the American Economy	NRST3/SurveyLA
La Loma Bridge	Arroyo Seco	Developing the American Economy	NR-local (2004)
Southern Pacific: golden spike at Lang Station connected Los Angeles with San Francisco (Santa Clarita)	Santa Susana Mountains	Developing the American Economy	SHL
Mount Lowe Railway	San Gabriel Mountains	Developing the American Economy, Creating Social Institutions and Movements	NR-state (1992)
Old Santa Susana Stage Road (Santa Susana Pass State Historic Park)	Simi Hills/Santa Susana Mountains	Developing the American Economy	NR-local (1974)
Pacific Crest Trail	Extends through study area	Creating Social Institutions and Movements	NST
Route 66	Extends through study area	Developing the American Economy	NPS preservation program
Santa Susana Railroad Depot	Simi Valley	Developing the American Economy	NRST2
Taylor Yard Signal Tower	Los Angeles River	Developing the American Economy	NRST3/SurveyLA
The Cascades, First Los Angeles Aqueduct	Santa Susana Mountains/Upper Santa Clara River	Transforming the Environment	SHL
Los Angeles Union Passenger Terminal (1939)	Los Angeles River	Developing the American Economy	NR-national (1980)
Cuesta Viejo (San Fernando Pass)	Santa Susana Mountains (Santa Clarita Valley)	Developing the American Economy	NRST2
Beale's Cut Stagecoach Pass	Santa Susana/San Gabriel Mountains	Developing the American Economy, Expressing Cultural Values	SHL

TABLE D-11: CULTURAL RESOURCES RELATED TO THE AMERICAN PERIOD (1848-Present) (continued)

Resource Name	Sub-Geographic Area	NPS Themes	Listing/ Evaluation Status
Commerce			
Arroyo Seco Federal Bank Building	Los Angeles River	Developing the American Economy	NRST2
Chinese Warehouse (La Casa de Pelanconi)	Los Angeles River	Developing the American Economy	Five Views (CDPR 1988)
Coldwater Curve Shops	Los Angeles River/San Fernando Valley	Developing the American Economy	NRST3/LA Survey
Oak-Crest Market	Santa Monica Mountains	Developing the American Economy	NRST3/LA Survey
Paulist Productions/ Thelma Todd's Sidewalk Café	Santa Monica Mountains	Developing the American Economy	NRST3/LA Survey
Pico House Hotel	Los Angeles River	Developing the American Economy	SHL
Price Pfister Brass Manufacturing Co. (1914)	Los Angeles River	Developing the American Economy	NRST3
Stearns Mill / Eagle Mills / Capitol Milling Company	Los Angeles River	Developing the American Economy	NRST2
Swarthmore Avenue Commercial Historic District	Los Angeles River/Pacific Palisades	Developing the American Economy	NRST3/LA Survey
Science and Technology			
Griffith Observatory/ Park Planetarium	Santa Monica Mountains	Expanding Science and Technology	NRST2
Mount Wilson Observatory	San Gabriel Mountains	Expanding Science and Technology	NHL (Potential Eligibility)
Lookout Mountain Air Force Station	Santa Monica Mountains	Shaping the Political Landscape	NRST3/SurveyLA
Los Pinetos Nike Site	San Gabriel Mountains	Shaping the Political Landscape	NRST2
Nike Missile Control Site LA-96	Santa Monica Mountains	Shaping the Political Landscape	NRST3/SurveyLA
Rocketdyne Facility in Canoga Park	Los Angeles River/San Fernando Valley	Shaping the Political Landscape	NRST3/SurveyLA
Santa Susana Field Laboratory Alfa Test Area Historic District	Simi Hills	Shaping the Political Landscape	NRST2
Alfa Test Area Historic District, Santa Susana Field Laboratory	Simi Hills	Shaping the Political Landscape	NRST2
Bravo Test Area Historic District, Santa Susana Field Laboratory	Simi Hills	Shaping the Political Landscape	NRST2
Coca Test Area Historic District, Santa Susana Field Laboratory	Simi Hills	Shaping the Political Landscape	NRST2
Santa Susana Field Laboratory Alfa I Test Stand (Building 2727)	Simi Hills	Shaping the Political Landscape	NRST2
Santa Susana Field Laboratory Alfa III Test Stand (Building 2729)	Simi Hills	Shaping the Political Landscape	NRST2
Santa Susana Field Laboratory Alfa Control House (Building 2208)	Simi Hills	Shaping the Political Landscape	NRST2
Santa Susana Field Laboratory Bravo Test Area Historic District	Simi Hills	Shaping the Political Landscape	NRST2
Santa Susana Field Laboratory Bravo I Test Stand (Building 2730)	Simi Hills	Shaping the Political Landscape	NRST2
Santa Susana Field Laboratory Bravo II Test Stand (Building 2731)	Simi Hills	Shaping the Political Landscape	NRST2
Santa Susana Field Laboratory Bravo Control House (Building 2213)	Simi Hills	Shaping the Political Landscape	NRST2
Santa Susana Field Laboratory Coca Test Area Historic District	Simi Hills	Shaping the Political Landscape	NRST2

TABLE D-11: CULTURAL RESOURCES RELATED TO THE AMERICAN PERIOD (1848-Present) (continued)

Resource Name	Sub-Geographic Area	NPS Themes	Listing/ Evaluation Status
Science and Technology			
Santa Susana Field Laboratory Coca I Test Stand (Building 733)	Simi Hills	Shaping the Political Landscape	NRST2
Santa Susana Field Laboratory Coca IV Test Stand (Building 787)	Simi Hills	Shaping the Political Landscape	NRST2
Santa Susana Field Laboratory Coca Control House (Building 218)	Simi Hills	Shaping the Political Landscape	NRST2
Space Flight Operations Facility	Pasadena	Expanding Science and Technology	NHL (1985)
Twenty-Five Foot Space Simulator	Pasadena	Expanding Science and Technology	NHL (1985)

Sources: National Register of Historic Places Database (accessed 2012, 2013); Office of Historic Preservation Record Search, Central Coast Information Center (June 2011); SurveyLA (Architectural Resources Group, Inc. 2013a, 2013b, and 2013c; Historic Resources Group and Galvin Preservation Associates 2013; Historic Resources Group 2013a and 2013b; LSA Associates 2011, GPA Consulting, Inc. 2013; Sapphos Environmental, Inc. 2012); CDRP 1988; Federal Determinations of Eligibility October 2011, NASA 2009, Angeles National Forest, Heritage Resources Database (2011).

Status codes:
NHL = National Historic Landmark; NHT = National Historic Trail; NR = National Register of Historic Places; NRST2 = Determined eligible for listing in the National Register of Historic Places or California Register; NRST3 = Appears Eligible for NR as an individual property through survey evaluation; NST = National Scenic Trail; SHL = California State Historic Landmark, Five Views = California State Historic Preservation Offices Ethnic Historic Sites Survey. SurveyLA are sites identified through the City of Los Angeles' citywide survey to identify and document historic resources representing significant themes in the city's history.

Notes:
- OHP records were compiled in June 2011. Data is not comprehensive at the local level. Many cities have their individual local landmarks. This information has not been collected for every city/community within the study area.
- Although many resources represent more than one theme/topic, they are listed under their primary them/topic.
- Location information for archeological sites and historic sites on private land that have been determined eligible/or potentially eligible for listing on either the National Register of California Register is not identified.

TABLE D-12: RE-ENGINEERING NATURE - RESOURCES RELATED TO WATER CONVEYANCE

Site	Location	Listing/ Evaluation Status
Spanish and Mexican Colonialism (1771-1848)		
Waterworks at Mission San Fernando del Rey de Espana (1811). The mission water system was completed by 1811 (Crawford, et al. 2000). Much of the site has lost its integrity but remains historically significant.	San Fernando Valley (near study area)	Portions of the original dam have survived as ruins.
The Zanja Madre (1781-1848). A simple earthen canal known as the Zanja Madre was dug to convey fresh water more than a mile from the Los Angeles River to the town plaza of El Pueblo, where it was used for domestic purposes (Crawford, et al. 2000).	Los Angeles River	Portions of the original alignment can be traced, but surviving ruins all date from the American Period.
First American Period – Development of the Existing Resource Base (1848-1898)		
The Zanja Madre. The original Zanja Madre, simple earthen canals, were lined during the American Period and eventually covered in brick.	Los Angeles River	Portions of this enclosed aqueduct have been discovered at Union Station and Los Angeles State Historic Park and in Chinatown (Water and Power Associates 2013).
Crystal Springs. The subterranean rock formation once forced aquifer water to the surface here. The Los Angeles City Water Company drew much of its water from this source. Located in a Griffith Park picnic area. Springs may no longer be present due to a declining water table in the San Fernando Valley aquifer (Kahrl 1982).	Santa Monica Mountains	Further research is needed to determine integrity.
Second American Period – Transforming the Natural Resource Base (1898-1966)		
Los Angeles Aqueduct and Associated Facilities (1908-1913)		
The Owensmouth Cascade (1913). The Los Angeles Aqueduct flows by gravity through metal pipe for much of the way from Owens Valley. After crossing the Santa Clarita Valley, it enters a tunnel which passes under a spur of the San Gabriel Mountains, and reaches the northern end of the San Fernando Valley near Sylmar. Here the water emerges from a portal located high up the hillside and tumbles down a long, concrete-lined canal, known popularly as "The Cascades" but originally as the "Owensmouth Cascades."	San Fernando Valley	State Historic Landmark
Los Angeles Reservoir (Van Norman Lake). From the Cascades, the Owens River water is conveyed through an open canal to Van Norman Lake. This storage facility was originally known as the Los Angeles Reservoir, a name which reflects its significance to the city at the time it was constructed.	San Fernando Valley (near study area)	It appears to have been altered substantially over the years, but additional assessment should be made.
St. Francis Dam Ruins (1926). The Saint Francis Dam was constructed on San Francisquito Creek, a tributary of the Santa Clara River, which the Los Angeles Aqueduct follows through the Sierra Pelona from Antelope Valley (in the southern Mojave Desert) to the Santa Clarita Valley. Completed in 1926 to store water on the Los Angeles Aqueduct. It failed catastrophically on 3/13/1928, shortly after filling for the first time. The dam's failure resulted in one of the worst man-made disasters in the nation's history.	Sierra Pelona (north of study area)	The ruins are still extant and appear to retain integrity, while the site itself, protected within the Angeles National Forest, has not been substantially altered since the period of significance.
Mulholland Dam and Hollywood Reservoir (1924). Designed to provide storage for water conveyed through the Los Angeles Aqueduct. Located at eastern end of the Santa Monica Mountains near Griffith Park. The design of Mulholland Dam is nearly identical to that of the erstwhile Saint Francis Dam, consisting of a concrete arch 933 feet in length and 195 feet high. After the collapse of the Saint Francis Dam, concern over the potential for a similar failure of the Mulholland Dam led city engineers to backfill tons of earth against the front of this structure, all but burying its elegantly curved, concrete face. One of the more significant historical properties associated with this theme and period (i.e., the first period of inter-basin water transfers by the city of Los Angeles).	Santa Monica Mountains	Appears to have retained integrity to their period of significance, but needs further assessment.
Chatsworth Dam (1918). Located on the western edge of the San Fernando Valley, it was designed to impound water for irrigation purposes and reflects a time when the San Fernando Valley was still primarily agricultural. The reservoir was drained in 1969 for maintenance, but damage to the structure caused by the 1971 Sylmar earthquake prevented it from being refilled. Though still owned by the Los Angeles Department of Water and Power, the property is now managed as a nature preserve though remains largely closed to the public.	Simi Hills	Further research should be done to assess its cultural significance and integrity.
Lower Franklin Dam (1922). This structure impounds a small reservoir on the Franklin Canyon River and was built by the city to store water for domestic and agricultural use.	Santa Monica Mountains	Further research should be done to assess its cultural significance and integrity.
Stone Canyon Dam (1924). Built by the city to store water for domestic and agricultural use. In 1954, Upper Stone Canyon Dam was constructed further upstream.	Santa Monica Mountains	Further research should be done to assess its cultural significance and integrity.
Encino Reservoir (1920). This structure was built to store water for domestic and agricultural use.	Santa Monica Mountains	Further research should be done to assess its cultural significance and

Sources: (Crawford et al. 2000, Cogstone 2003, Water and Power Associates 2013, Kahrl 1982)

TABLE D-13: RE-ENGINEERING NATURE - RESOURCES RELATED TO FLOOD PROTECTION

Site	Location	Listing/ Evaluation Status
Local Flood Control Engineering (1914-1934)		
Hundreds of upstream check dams (1930-1934) were constructed in mountain canyons as part of Eaton's Comprehensive Plan. These simple field-stone structures typically measured 6 to 10 ft. in height and would span small canyons and arroyos at regular intervals. The structures were sometimes reinforced with wire or cable. Although highly effective in other geographic environments where periodic flooding was less extreme than in southern California, here they proved all-but-worthless. Most were washed away during the floods of 1934.	San Gabriel Mountain Foothills	Additional survey is required to determine whether any of the original structures remain from prior to the 1934 floods.
Downstream channel improvements (1914-1934) were also made on approximately 227 miles of nearly 500 miles of natural river channels. Most of this work, however, was temporary in nature, comprising woven-brush revetment and similarly ephemeral construction.	River channel sections within the study area	None of this improvement can be assumed to have survived (unless as buried archeological ruins).
Devils Gate Dam (1920) was the first dam to be built by the Los Angeles County Flood Control District during the first period of flood control engineering. Consistent with the multiple use objectives of the early flood control district, Devils Gate also stores water for domestic and agricultural use and provides important habitat for fish and other wildlife.	Arroyo Seco	The historic integrity of the property remains to be assessed.
Pacoima Dam (1928). At the time of construction, it was the tallest concrete arch dam in the United States. Located within the Los Angeles River watershed on the Pacoima Wash, this dam lies possesses cultural significance as a good example of early engineering solutions during the first period of local flood control development.	San Gabriel Mountains	Previously assessed for its significance in 1995 and determined not eligible. The analysis was not available to the study team.
Big Tujunga Dam (1931). Located on Big Tujunga Creek within the Angeles National Forest, this large structure comprises a concrete arch measuring 208 ft. in height and 505 f in length. Its utility for flood control has largely been superseded by the Hansen Flood Control Basin.	San Gabriel Mountains	The historic integrity of this property remains to be determined.
Federal Assistance for Flood Control Engineering (1935-1965)		
Debris Basins. By the end of this period (1965), the U.S. Army Corps of Engineers had constructed 17 debris basins on tributaries within the Los Angeles River watershed. These structures were typically located in the foothills at the mouths of small canyons and arroyos. As a whole, they represent an integral part of the flood control system and the design philosophy which guided it during this period of significance.	San Gabriel Mountain Foothills	Many lie within the study area. Systematic inventory is needed to determine integrity.
Hansen Flood Control Basin (1940). Completed in 1940 at the mouth of Big Tujunga Wash within the Los Angeles River watershed. This was the first large flood control basin constructed after the 1938 floods, which demonstrated the efficacy of these structures. .	Verdugo Mountains	L.A. Survey found this to be significant for both recreational and public works values.
Sepulveda Flood Control Basin (1941). Located on the upper Los Angeles River within the San Fernando Valley. This structure was built at nearly the same time as the Hansen Flood Control Basin, located only a few miles north, and possesses similar historical significance.	Los Angeles River (near study area)	L.A. Survey found this to be significant for both recreational and public works values.

Sources: (Orsi 2004, Turhollow 1975)

Note: These resources would need to be evaluated within the larger context of other water conveyance and control features in the surrounding area, including the Los Angeles River Harbor Diversion, San Dimas Dam, Big Santa Anita Dam, Puddingstone Dam, Big Dalton Dam, Cogswell Dam, Morris Dam, San Gabriel Dam No. 1, Lopez Flood Control Basin, Santa Fe Flood Control Basin, Whittier Narrows Flood Control Basin, and other sites.

Appendix E: National Historic Landmark Criteria Sec 65.4

The criteria applied to evaluate properties for possible designation as National Historic Landmarks or possible determination of eligibility for National Historic Landmark designation is listed below. These criteria shall be used by NPS in the preparation, review and evaluation of National Historic Landmark studies. They shall be used by the Advisory Board in reviewing National Historic Landmark studies and preparing recommendations to the Secretary. Properties shall be designated National Historic Landmarks only if they are nationally significant. Although assessments of national significance should reflect both public perceptions and professional judgments, the evaluations of properties being considered for landmark designation are undertaken by professionals, including historians, architectural historians, archeologists and anthropologists familiar with the broad range of the nation's resources and historical themes. The criteria applied by these specialists to potential landmarks do not define significance nor set a rigid standard for quality. Rather, the criteria establish the qualitative framework in which a comparative professional analysis of national significance can occur. The final decision on whether a property possesses national significance is made by the Secretary on the basis of documentation including the comments and recommendations of the public who participate in the designation process.

(a) Specific Criteria of National Significance: The quality of national significance is ascribed to districts, sites, buildings, structures and objects that possess exceptional value or quality in illustrating or interpreting the heritage of the United States in history, architecture, archeology, engineering and culture and that possess a high degree of integrity of location, design, setting, materials, workmanship, feeling and association, and:

(1) That are associated with events that have made a significant contribution to, and are identified with, or that outstandingly represent, the broad national patterns of United States history and from which an understanding and appreciation of those patterns may be gained; or

(2) That are associated importantly with the lives of persons nationally significant in the history of the United States; or

(3) That represent some great idea or ideal of the American people; or

(4) That embody the distinguishing characteristics of an architectural type specimen exceptionally valuable for a study of a period, style or method of construction, or that represent a significant, distinctive and exceptional entity whose components may lack individual distinction; or

(5) That are composed of integral parts of the environment not sufficiently significant by reason of historical association or artistic merit to warrant individual recognition but collectively compose an entity of exceptional historical or artistic significance, or outstandingly commemorate or illustrate a way of life or culture; or

(6) That have yielded or may be likely to yield information of major scientific importance by revealing new cultures, or by shedding light upon periods of occupation over large areas of the United States. Such sites are those which have yielded, or which may reasonably be expected to yield, data affecting theories, concepts and ideas to a major degree.

(b) Ordinarily, cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings and properties that have achieved significance within the past 50 years are not eligible for designation. Such properties, however, will qualify if they fall within the following categories:

(1) A religious property deriving its primary national significance from architectural or artistic distinction or historical importance; or

(2) A building or structure removed from its original location but which is nationally significant primarily for its architectural merit, or for association with persons or events of transcendent importance in the nation's history and the association consequential; or

(3) A site of a building or structure no longer standing but the person or event associated with it is of transcendent importance in the nation's history and the association consequential; or

(4) A birthplace, grave or burial if it is of a historical figure of transcendent national significance and no other appropriate site, building or structure directly associated with the productive life of that person exists; or

(5) A cemetery that derives its primary national significance from graves of persons of transcendent importance, or from an exceptionally distinctive design or from an exceptionally significant event; or

(6) A reconstructed building or ensemble of buildings of extraordinary national significance when accurately executed in a suitable environment and presented in a

dignified manner as part of a restoration master plan, and when no other buildings or structures with the same association have survived; or

(7) A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own national historical significance; or

(8) A property achieving national significance within the past 50 years if it is of extraordinary national importance.

Appendix F: NPS Thematic Framework (Cultural Resources)

NPS Cultural Resources Thematic Framework

The revised framework will guide the NPS, working independently and with its partners in the private and public sectors, in:

- evaluating the significance of resources for listing in the National Register of Historic Places, for designation as National Historic Landmarks, or for potential addition to the National Park System;
- assessing how well the themes are currently represented in existing units of the National Park System and in other recognized areas; and,
- expanding and enhancing the interpretive programs at existing units of the National Park System to provide a fuller understanding of our nation's past.

The use of the framework need not be limited to the federal level, however, for the conceptualization it provides can equally inform preservation and interpretation at local, state, and regional levels.

The framework's themes are represented in the following diagram. They embrace prehistory to the modern period and a multiplicity of human experiences. The diagram reflects how scholarship is dramatically changing the way we look at the past, reconstructing it as integrated, diverse, complex, human experience. Each segment in the diagram represents a significant aspect of the human experience. The reality of the interrelationships is reflected in the overlapping circles.

The framework draws upon the work of scholars across disciplines to provide a structure for capturing the complexity and meaning of human experience and for understanding that past in coherent, integrated ways. For purposes of organization, the following outline, like the diagram, provides eight seemingly discrete categories, but they are not meant to be mutually exclusive. Cutting across and connecting the eight categories are three historical building blocks: people, time, and place.

Thematic Framework

I. Peopling Places

This theme examines human population movement and change through prehistoric and historic times. It also looks at family formation, at different concepts of gender, family, and sexual division of labor, and at how they have been expressed in the American past. While patterns of daily life-birth, marriage, childrearing-are often taken for granted, they have a profound influence on public life.

Life in America began with migrations many thousands of years ago. Centuries of migrations and encounters have resulted in diverse forms of individual and group interaction, from peaceful accommodation to warfare and extermination through exposure to new diseases.

Communities, too, have evolved according to cultural norms, historical circumstances, and environmental contingencies. The nature of communities is varied, dynamic, and complex. Ethnic homelands are a special type of community that existed before incorporation into the political entity known as the United States. For example, many Indian sites, such as Canyon de Chelly National Monument in Arizona, are on tribal lands occupied by Indians for centuries. Similarly, Hispanic communities, such as those represented by San Antonio Missions National Historical Park, had their origins in Spanish and Mexican history. Distinctive and important regional patterns join together to create microcosms of America's history and to form the "national experience."

Topics that help define this theme include:

1. family and the life cycle
2. health, nutrition, and disease
3. migration from outside and within
4. community and neighborhood
5. ethnic homelands
6. encounters, conflicts, and colonization

II. Creating Social Institutions and Movements

This theme focuses upon the diverse formal and informal structures such as schools or voluntary associations through which people express values and live their lives. Americans generate temporary movements and create enduring institutions in order to define, sustain, or reform these values. Why people organize to transform their institutions is as important to understand as how they choose to do so. Thus, both the diverse motivations people act on and the strategies they employ are critical concerns of social history.

Sites such as Women's Rights National Historical Park in Seneca Falls, New York, and the Eugene V. Debs National Historic Landmark in Indiana illustrate the diversity and changeable nature of social institutions. Hancock Shaker Village, a National Historic Landmark, and Touro Synagogue, a National Historic Site, reflect religious diversity. This category will also encompass temporary movements that influenced American history but did not produce permanent institutions.

Topics that help define this theme include:

1. clubs and organizations
2. reform movements
3. religious institutions
4. recreational activities

III. Expressing Cultural Values

This theme covers expressions of culture-people's beliefs about themselves and the world they inhabit. For example, Boston African American Historic Site reflects the role of ordinary Americans and the diversity of the American cultural landscape. Ivy Green, the birthplace of Helen Keller in Alabama, and the rural Kentucky Pine Mountain Settlement School illustrate educational currents. Walnut Street Theater in Pennsylvania, Louis Armstrong's house in New York City, the Chautauqua Historic District in New York, and the Cincinnati Music Hall-all National Historic Landmarks-reflect diverse aspects of the performing arts.

This theme also encompasses the ways that people communicate their moral and aesthetic values. The gardens and studio in New Hampshire of Augustus Saint-Gaudens, one of America's most eminent sculptors, and Connemara, the farm in North Carolina of the noted poet Carl Sandburg, both National Historic Sites, illustrate this theme.

Topics that help define this theme include:

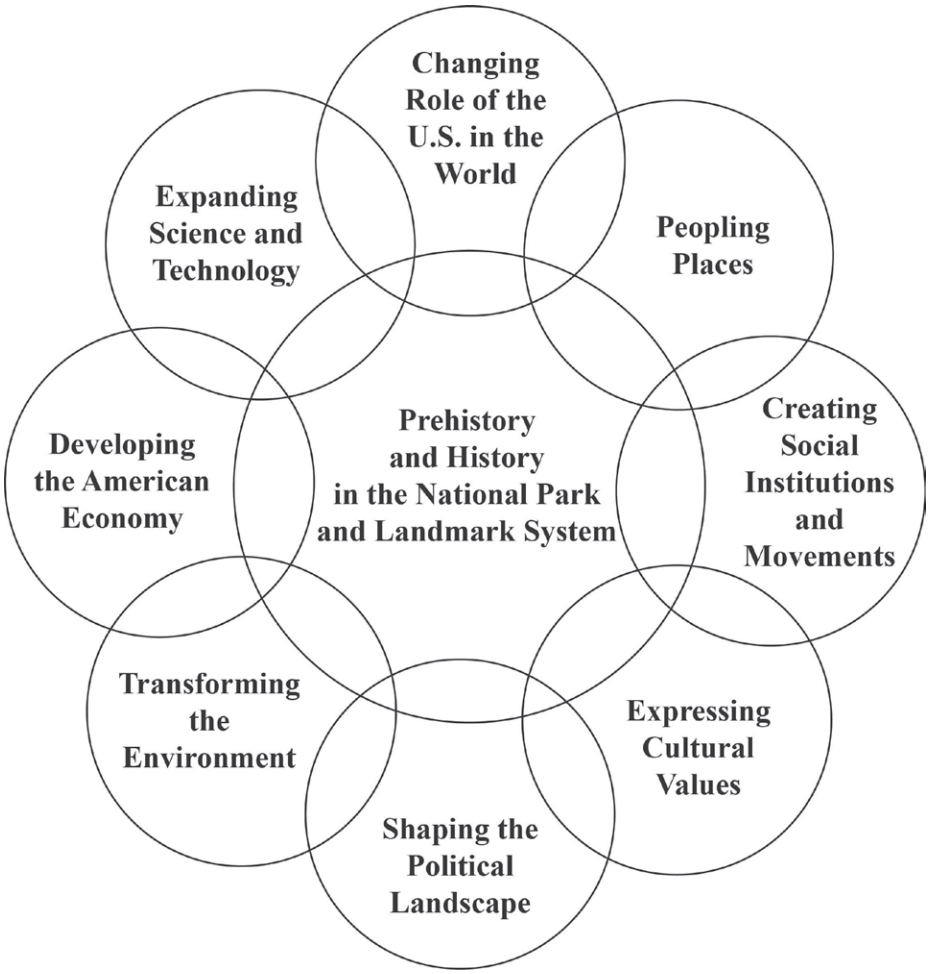
1. educational and intellectual currents
2. visual and performing arts
3. literature
4. mass media
5. architecture, landscape architecture, and urban design
6. popular and traditional culture

IV. Shaping the Political Landscape

This theme encompasses tribal, local, state, and federal political and governmental institutions that create public policy and those groups that seek to shape both policies and institutions. Sites associated with political leaders, theorists, organizations, movements, campaigns, and grassroots political activities all illustrate aspects of the political environment. Independence Hall is an example of democratic aspirations and reflects political ideas.

Places associated with this theme include battlefields and forts, such as Saratoga National Historical Park in New York and Fort Sumter National Monument in South Carolina, as well as sites such as Appomattox Court House National Historical Park in Virginia that commemorate watershed events in the life of the nation.

The political landscape has been shaped by military events and decisions, by transitory movements and protests, as well as by political parties. Places associated with leaders in the development of the American constitutional system such as Abraham Lincoln's home in Illinois and the birthplace of Martin Luther King, Jr., in Atlanta-both National Historic Sites-embody key aspects of the political landscape.



Topics that help define this theme include:

1. parties, protests, and movements
2. governmental institutions
3. military institutions and activities
4. political ideas, cultures, and theories

V. Developing the American Economy

This theme reflects the ways Americans have worked, including slavery, servitude, and non-wage as well as paid labor. It also reflects the ways they have materially sustained themselves by the processes of extraction, agriculture, production, distribution, and consumption of goods and services.

Vital aspects of economic history are frequently manifested in regional centers, for example, ranching on the Great Plains illustrated by Grant-Kohrs Ranch National Historic Site in Montana. Individual economic sites, such as Lowell National Historical Park in Massachusetts, may be distinctive in representing both the lives of workers and technological innovations.

In examining the diverse working experiences of the American people, this theme encompasses the activities of farmers, workers, entrepreneurs, and managers, as well as the technology around them. It also takes into account the historical "layering" of economic society, including class formation and changing standards of living in diverse sectors of the nation. Knowledge of both the Irish laborer and the banker, for example, are important in understanding the economy of the 1840s.

Topics that help define this theme include:

1. extraction and production
2. distribution and consumption
3. transportation and communication
4. workers and work culture
5. labor organizations and protests
6. exchange and trade
7. governmental policies and practices
8. economic theory

VI. Expanding Science and Technology

This theme focuses on science, which is modern civilization's way of organizing and conceptualizing knowledge about the world and the universe beyond. This is done through the physical sciences, the social sciences, and medicine. Technology is the application of human ingenuity to modification of the environment in both modern and traditional cultures. Alibates Flint Quarries National Monument in Texas reflects pre-Columbian innovations while Edison National Historic Site in New Jersey reflects technological advancement in historic times. Technologies can be particular to certain regions and cultures.

Topics that help define this theme include:

1. experimentation and invention
2. technological applications
3. scientific thought and theory
4. effects on lifestyle and health

VII. Transforming the Environment

This theme examines the variable and changing relationships between people and their environment, which continuously interact. The environment is where people live, the place that supports and sustains life. The American environment today is largely a human artifact, so thoroughly has human occupation affected all its features. Cuyahoga Valley National Recreation Area, which includes portions of the Ohio and Erie Canal, for example, is a cultural landscape that links natural and human systems, including cities, suburbs, towns, countryside, forest, wilderness, and water bodies.

This theme acknowledges that the use and development of the physical setting is rooted in evolving perceptions and attitudes. Sites such as John Muir National Historic Site in California and Sagamore Hill National Historic Site in New York, the home of President Theodore Roosevelt, reflect the contributions of leading conservationists. While conservation represents a portion of this theme, the focus here is on recognizing the interplay between human activity and the environment as reflected in particular places, such as Hoover Dam, a National Historic Landmark.

Topics that help define this theme include:

1. manipulating the environment and its resources
2. adverse consequences and stresses on the environment
3. protecting and preserving the environment

VIII. Changing Role of the United States in the World Community

This theme explores diplomacy, trade, cultural exchange, security and defense, expansionism-and, at times, imperialism. The interactions among indigenous peoples, between this nation and native peoples, and this nation and the world have all contributed to American history. Additionally, this theme addresses regional variations, since, for example, in the eighteenth century, the Spanish southwest, French and Canadian middle west, and British eastern seaboard had different diplomatic histories.

America has never existed in isolation. While the United States, especially in the nineteenth and twentieth centuries, has left an imprint on the world community, other nations and immigrants to the United States have had a profound influence on the course of American history.

The emphasis in this category is on people and institutions-from the principals who define and formulate diplomatic policy, such as presidents, secretaries of state, and labor and immigrant leaders, to the private institutions, such as the Carnegie Endowment for International Peace, that influence America's diplomatic, cultural, social, and economic affairs. Monticello, the Virginia home of Thomas Jefferson, a National Historic Landmark, reflects the diplomatic aspirations of the early nation.

Topics that help define this theme include:

1. international relations
2. commerce
3. expansionism and imperialism
4. immigration and emigration policies

Appendix G: Process Used to Develop the 2005 *Santa Monica Mountains National Recreation Area Fire Management Plan and Environmental Impact Statement*

The legislation that authorized the Rim of the Valley Corridor Special Resource Study (the Consolidated Natural Resources Act of 2008, P.L. 110-229 – May 2008), Section 327) also directed the National Park Service to document:

"(1) the process used to develop the existing Santa Monica Mountains National Recreation Area Fire Management Plan and Environmental Impact Statement (September 2005); and
(2) all activity conducted pursuant to the plan referred to in paragraph (1) designed to protect lives and property from wildfire."

This appendix is included in the draft study report to respond to this request from Congress.

The *Final Environmental Impact Statement for a Fire Management Plan Santa Monica Mountains National Recreation Area* was published in September 2005 and a completed Record of Decision was signed by the NPS Regional Director in February 2006. These documents provide a detailed program of actions to carry out fire management policies and objectives on NPS-owned lands within the legislated boundary of the recreation area. The goals and objectives of the fire management plan have their foundation in the park's planning documents: the General Management Plan (2003), the Resource Management Plan (1999), as well as NPS and federal legislation and fire policy; the NPS Organic Act; and the enabling legislation establishing SMMNRA.

SMMNRA Fire Management Plan (2005) Process

The process used to develop the SMMNRA Fire Management Plan was the process commonly followed by a federal agency to develop a management plan under the National Environmental Policy Act. The main steps in this process are: 1) scoping, 2) alternatives development, 3) draft plan with public involvement, 4) final plan and record of decision.

Pre-scoping Workshop

In the summer of 2001, prior to initiating public scoping for the Santa Monica Mountains National Recreation Area Fire Management Plan, the National Park Service hosted a fire management workshop with a variety of fire management and land management agencies as well as resource management and fire ecology professionals. Approximately 30 people discussed their ideas, thoughts and concerns on what a fire management program could look like in the Santa Monica Mountains based on current science and conservation planning. From this meeting, seven options encompassing the workshop's findings for fire management were initially drafted.

Public Outreach

Next, the NPS published a notice of scoping to initiate preparation of the fire management plan and environmental impact statement in the March 26, 2002 federal Register (Volume 67, #58). A number of opportunities were subsequently provided for the public to participate in the conservation planning and environmental impact analysis process. The fire plan team primarily used newsletters and meetings to solicit public comments and suggestions for the plan. Four public meetings were held in the spring of 2002 in the cities of Beverly Hills/Los Angeles, Calabasas/Agoura Hills, Malibu, and Thousand Oaks to provide background information on the project to encourage the public to submit their comments and concerns. Additional meetings with key partner agencies were also conducted in June 2002. Approximately 35 citizens attended the 6 meetings. In addition, letters were sent to approximately fifteen citizens with Native American affiliations to solicit their comments.

Issues Addressed in the Plan

The plan addressed several issues that were raised during the public scoping process. The first of these issues was firefighter and public safety including the relocation of overhead power lines underground to reduce fire starts from arcing power lines; how to provide information to homeowners so that they implement those measures necessary to provide for their own safety in extreme wildfire; and and how to refine existing risk analysis with factors such as density, ingress and egress, fuel loads, fire history to identify high-risk areas using GIS and fire models. Another issue addressed in the plan was to concentrate on fuels tratments at the wildland urban interface to optimize the effectiveness of property protection and to minimize impacts. A third topic included the operational and policy coordination amoun all agencies within SMMNRA to include consistent brush clearance policies and uniform emergency plans. A fourth topic analyzed was the impact of fire management activities including suppression actions and the spread of invasive plants and animals. Another significant topic analyzed was the use of presecribed fire for restoration activities. The final topic analyzed was appropriate land use planning.

Development of Alternatives

In response to the wide range of comments offered during the scoping meetings, an interdisciplinary team developed a range of alternatives. The alternatives were designed to provide effective fire protection at the wildland urban interface while protecting ecological and cultural resource values based on a

realistic understanting of the nature of the vegetation and the fire climate of the Santa Monica Mountains. The alternatives were structured around the fire management tools available to accomplish the program goals and objectives of the plan. The tools included wildland fire suppression, mechanical and biomechanical fuel reduction, strategic fuels treatment, landscape mosaic prescribed fire, and public education and support.

The simplest alternative (Alternative 4) focused primarily on mechanical fuel modification at the wildland urban interface. The next alternative included mechanical fuel modification with added ecological prescribed burning (Alternative 3). The most complex alternative (Alternative 2) included mechanical fuel modification, ecological prescribed burning and strategic fuels treatment. The No Action (Alternative 1) would have left in place the recommendations of the previous Fire Management Plan from 1994 that included landscape mosaic prescribed burning.

All of the alternatives included complete suppression of wildfires, coordination of vegetation management with local fire agencies, consultation with local fire agencies to protect resources during suppression activities, assessment of wildland fire hazards to people, homes, and resources and use of public education to reduce the associated risks.

The fire management actions in all of the proposed alternatives apply only to National Park Service properties. Related activities such as coordination and consulation with local fire agencies, assessment of fire hazard, and public education apply to all private and public lands within the Santa Monica Mountains National Recreation Area (SMMNRA) boundary.

Public Release of the Draft Fire Plan

Four alternatives were developed and carried forward for full analysis. The Environmental Protection Agency (EPA) issued its notice of filing of the draft environmental impact statement in the June 10th, 2004, Federal Register (Volume 69, #185); the NPS notice of availability of the Draft EIS for a 90-day public review opportunity was published on June 16th, 2004. About 500 letters announcing the availability of the draft plan were distributed. Over 250 copies of the draft plan in both paper and compact disc form were distributed. The draft plan was also placed on the internet and made available at approximately 75 libraries throughout the region.

The planning team held four public meetings on the draft environmental impact statement and fire plan from August 13 – 18, 2004 in Agoura Hills/Calabasas, Los Angeles, Malibu, and Thousand Oaks. Approximately 45 citizens attended these meetings. They were presented with the facts and information that led to the formulation of the preferred alternative. Participants were encouraged to submit their comments in writing by letter, fax, or e-mail. Approximately 25 written responses to the draft fire plan were received from the public, agencies, and organizations during the comment period. Overall no new public issues or concerns not already addressed in the Draft EIS were received.

The Preferred Alternative

Alternative 2 was deemed to be the "environmentally preferred" alternative because it was the most flexible and utilizes all available fire management strategies identified to be appropriate in the Santa Monica Mountains. In this alternative, prescribed burning is used to provide resource enhancement and hazard fuel reduction projects are considered in strategic locations to reduce the spread of wildfires. Short-term and site-specific resource impacts of strategic treatments are weighed against long-term and regional hazard fuel reduction benefits. Strategic zones are identified using analysis of vegetation types, fuel characteristics, fire spreadmodels, and potential hazards to life, property, and natural and cultural resources. Mechanical or biomechanical fuel reduction is concentrated at the wildland urban interface to protect homes.

Final Plan

The EPA's notice of filing of the Final EIS was published in the December 23rd, 2005 edition of the Federal Register (Volume 70, #246); the NPS notice of availability was published on December 28th, 2005. The Final EIS was mailed out, placed in local libraries, posted on the internet, and otherwise distributed in keeping with the issuance of the Draft EIS. The requisite 30-day No Action waiting period concluded January 23, 2006. Both during that period and subsequently, no letters or other comments responding to the Final EIS were received. On February 7th 2006 the EPA published a "no need for comment" notice in the Federal Register.

Record of Decision

On February 16, 2006, Regional Director Jonathan B. Jarvis signed the Record of Decision. This Record of Decision included a description of the background for the project, a statement of the decision made, synopses of other alternatives considered, the basis for the decision, findings on impairment of park resources and values, a description of the environmentally preferable alternative, a listing of measures to minimize environmental harm and an overview of public and agency involvement in the decision-making process.

Subsequent actions

Since publication of the Final EIS/Fire Management Plan the National Park Service has conducted activities in accordance with the plan in order to protect lives and property from wildfire. These activities include 1) the development of a Community Wildfire Protection Plan, 2) fire suppression activities, and 3) fuels management actions on NPS land.

Community Wildfire Protection Plan

From 2009 – 2012, the National Park Service collaborated with Los Angeles County on the development of a Community

Wildfire Protection Plan (CWPP) for the Santa Monica Mountains. This plan guides the actions of local fire safe councils (FSCs), private landowners, land management agencies, and local emergency service providers in their efforts to reduce wildfire risks and hazards to human lives, improvements, and natural values in the Santa Monica Mountains. In addition, the CWPP:

- Identifies strategies to reduce structure ignitibility while protecting the environmental integrity of the Santa Monica Mountains wildlands.
- Identifies priority projects to reduce risks and hazards from wildfire at the neighborhood or community scale, while protecting conservation values in the Santa Monica Mountains.
- Provides community input to public land management within Santa Monica Mountains National Recreation Area.
- Meets community collaboration requirements under the National Fire Plan and other government funding sources, in order to qualify for public funds allocated to this purpose (NPS 2013g).

Subsequent to the completion of the CWPP, several communities received grant funds to assist with their fire prevention plans.

Fire Suppression

All wildland fires within Santa Monica Mountains Recreation Area (SMMNRA) receive full suppression action through immediate response by initial attack resources.

The protection area within the SMMNRA boundary consists of federal, state, county, city and private property. The protection of National Park Service land is the responsibility of SMMNRA. Ventura County Fire, Los Angeles County Fire and Los Angeles City Fire have protection responsibility for state, county, city and private property within their jurisdictions. These agencies also provide immediate assistance to fires originating on NPS lands through cooperative fire agreements.

SMMNRA has two wildland fire engines which are available to respond to these incidents. One of these engines is a large Type 3 wildland engine and the other is a smaller Type 6 wildland engine.

Fuels Management

Park fuels management in the Santa Monica Mountains is focused and strategic. The objective is to maximize the effectiveness for protecting lives and property and minimize impacts to natural resources.

A time-tested method used at NPS facilities within the Santa Monica Mountains to protect lives and property is to perform fuel modification and create a defensible space. Along with hardening structures from heat and embers, adequate defensible space helps prevent structure ignition from direct flame impingement and radiant heat, while providing a safer environment for firefighters. Defensible space treatments are required for Park structures.

Appendix H: San Gabriel Watershed and Mountains Special Resource Study & Environmental Assessment Findings and Recommendations

From Finding of No Significant Impact (October 2012)

The San Gabriel River Watershed Study Act (P.L. 108-042, July 2003) authorized the National Park Service (NPS) to conduct a special resource study of (1) the San Gabriel River and its tributaries north of and including the city of Santa Fe Springs, and (2) the San Gabriel Mountains within the territory of the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy. The final study report and selected alternative was transmitted to Congress in April 2013

Study Findings

Evaluation of Nationally Significant Resources

The NPS has determined that two regions of the study area are nationally significant under the National Park Service New Area Studies Act criteria; the San Gabriel Mountains and the Puente-Chino Hills. The San Gabriel Mountains and foothills are nationally significant for their geologic resources, high biodiversity, dynamic river systems, and a long history of scientific study and discovery. The active mountain system has created scenic and unusual landscapes that support a high level of ecological diversity and contain a uniquely diverse assemblage of geologic resources and features. Nationally significant cultural resources include the Mount Wilson Observatory and San Dimas Experimental Forest. The Puente-Chino Hills contain a high level of biodiversity and outstanding examples of southern California communities, including coastal sage scrub, one of the most endangered plant communities in California, and the best remaining stands of California walnut-dominated forests and woodlands in their southern limit of distribution.

Evaluation of Suitability

This study concludes that portions of the San Gabriel Mountains and Puente-Chino Hills, as described in the draft study report, are suitable for inclusion in the national park system, based upon an evaluation of the study area resources and their relative quality, character, and rarity. Together, the San Gabriel Mountains and Puente-Chino Hills contain a combination of themes and resources not found in any national park unit or comparably managed area.

Evaluation of Feasibility

The study concludes that a collaborative partnership-based park unit, which respects the complex mix of land use, ownership, and regulatory authority in the study area, is feasible. Opportunities for collaborative management with local, state and federal managers to protect natural and cultural resources, to provide recreation, public access, interpretation and educational opportunities, and other compatible uses in a partnership-based park unit have been demonstrated to exist. A large traditional national park unit, owned and operated solely by the National Park Service, is determined to be infeasible.

Need for NPS Management

The study concludes that a collaborative management approach which includes a leadership role for the National Park Service is a superior management option for meeting the complex conservation and recreation needs of the study area. In particular, the NPS has the ability to work in a coordinated fashion, on a regional basis, to address equitable access to open space, protection of significant resources, and interpretation and education of significant resources. Existing NPS assistance programs are currently insufficient to address these needs in the study area.

Alternatives Analyzed

Four alternatives were analyzed in the San Gabriel Watershed and Mountains Draft Special Resource Study and Environmental Assessment. The alternatives are based on the purpose and need for the project and are consistent with existing laws, NPS policy and the special resource study legislation.

- **No Action Alternative: Continuation of Current Management.** Public land management agencies and local governments would continue their land management, visitor services, public education, recreation and interpretive programs at approximately the current levels of activity and funding, according to current plans. Existing cooperative management efforts would continue. The National Park Service would have no role in the study area beyond the existing segments of two national historic trails, some ongoing technical assistance from the Rivers, Trails and Conservation Assistance Program, and limited financial assistance through the Land and Water Conservation Fund.

- **Alternative A: San Gabriel Mountains National Recreation Area**. Congress would designate the San Gabriel Mountains unit of the Angeles National Forest (Angeles NF) as a National Recreation Area (NRA) that would continue to be managed by the U.S. Forest Service (USFS). The designation would bring additional recognition, tools, and support to the Angeles NF in order to steward watershed resources and ecosystems, and improve recreational opportunities. The National Park Service would have no role in the NRA beyond a continuation of the informal partnership between the U.S. Forest Service and Santa Monica Mountains NRA.

- **Alternative C: San Gabriel Watershed National Recreation Area**. Congress would designate the upper San Gabriel River watershed within the Angeles NF and a half-mile corridor around the San Gabriel and Rio Hondo rivers within the study area as a National Recreation Area to be managed by a voluntary partnership of agencies and organizations with land and interests in the designated area. The primary roles of the NPS would be coordination of the partnership and taking a lead role in coordinating interpretative and educational messages about significant resources. Each partner and other jurisdictional authorities would retain land ownership, management, and decision-making authority for lands that they own. The partnership would work to create new recreational and open space opportunities that are compatible with maintaining watershed values, water supply, flood protection, and habitat values.

- **Alternative D: San Gabriel Region National Recreation Area**. Congress would designate the San Gabriel Mountains unit of the Angeles NF, adjacent foothill areas with ecological resource values, areas near the San Andreas Fault, portions of the western Puente Hills, and half-mile corridors along the San Gabriel and Rio Hondo rivers as a National Recreation Area. The NRA would be managed much the same as described under alternative C, under a partnership comprised of agencies and organizations with interests in the area. The NPS role would be essentially the same as in alternative C, but with the addition of a technical assistance program to provide conservation and recreation planning assistance to interested public agencies, private landowners, and organizations beyond the NRA boundaries to create and connect parks, conserve habitat and provide new recreational experiences throughout the region.

The Selected Alternative

Concept

The most effective and efficient alternative is primarily a combination of management concepts from alternative A (San Gabriel Mountains National Recreation Area) and alternative D (San Gabriel Region National Recreation Area), as presented in the San Gabriel Watershed and Mountains Draft Special Resource Study. Some additional refinements have been made to reflect public concerns, provide for efficient management, and to take advantage of new authorities provided to the National Park Service (NPS) and the U.S. Forest Service (USFS) through the Service First authority (made permanent in December 2011).

The selected alternative would establish a San Gabriel unit of the Santa Monica Mountains National Recreation Area which would provide the NPS, and other land management agencies and organizations with guidance and direction to work together in new ways. Partnership arrangements among federal and state agencies, local governments, non-profit organizations, and area landowners would be the primary means to achieve the conservation, recreational, and educational goals of the San Gabriel unit. The Angeles National Forest (Angeles NF) would not be included in the San Gabriel unit. The NPS and USFS would work in partnership through the Service First Authority and legislative guidance would provide additional support and authorities for the Angeles NF to steward resources and improve recreational opportunities.

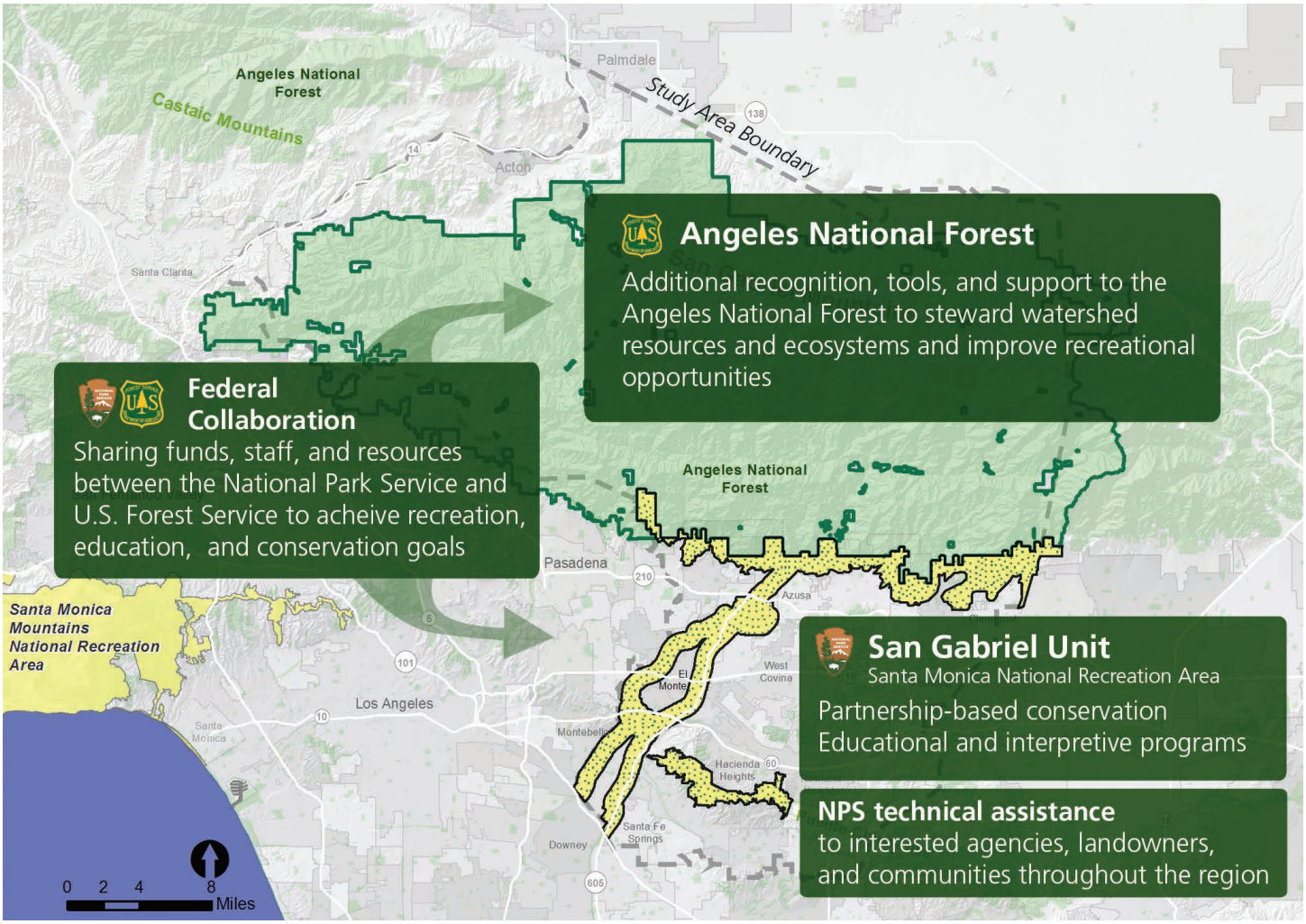
Specifically, components of the selected alternative would include:

San Gabriel unit of the Santa Monica Mountains NRA (San Gabriel unit). The San Gabriel Mountains foothills, San Gabriel and Rio Hondo river corridors and the western Puente Hills (alternative D south of the Angeles NF) would be established as an additional unit of the Santa Monica Mountains NRA. The NPS and numerous other agencies and organizations with land and interests in the area would: 1) work collaboratively to protect significant resources, restore ecological communities, and improve recreational opportunities; 2) provide technical assistance to willing communities for conservation planning to extend open space connections and form a network of parks, habitats, and open spaces; and 3) offer new educational and interpretive opportunities.

Angeles National Forest. The selected alternative would also bring additional recognition, tools, and support to the Angeles NF in order to steward watershed resources and ecosystems and improve recreational opportunities. In lieu of a new designation for the Angeles NF, this guidance would: 1) reaffirm the primary importance of the Angeles NF in preserving watershed and natural resources, while continuing to provide for multiple use management; and 2) prioritize funding for resource protection, recreation, and education, and establish mechanisms to increase funding for facilities, maintenance, ecological restoration, visitor management; and offer new educational programming, and stewardship activities. This would be accomplished without a national recreation area designation on the Angeles NF.

Collaborative Federal Management. The NPS and USFS would collaborate through the Service First authority and other mechanisms to protect the significant resources of the San Gabriel watershed and mountains, provide high quality recreation and education opportunities, and assist the surrounding communities in providing community-based recreation and conservation opportunities. The NPS and the USFS would work together:

- To explore opportunities to protect and enhance interconnected ecosystems essential for long-term viability of significant natural resources.



Map of the Selected Alternative for the San Gabriel Study

- To help communities provide close-to-home outdoor recreation, conservation and education opportunities for their residents, as well as to better connect to the nearby national park and national forest areas.
- To provide an array of seamless outdoor experiences in the San Gabriel watershed and mountains.

Proposed Area

The San Gabriel Unit

The San Gabriel unit of the Santa Monica Mountains NRA would include:

- The San Gabriel Mountains foothill areas in the San Gabriel Valley with ecological resource values. Areas with ecological resource values include designated critical habitat for federally listed threatened or endangered species, and areas within one of the Los Angeles County proposed significant ecological areas;
- A half-mile corridor around the San Gabriel and Rio Hondo rivers from the Angeles NF boundary south to Santa Fe Springs; and
- Portions of the western Puente Hills with ecological resource value and recreational potential (areas west of Harbor Boulevard). This primarily includes lands owned/or and managed by the Puente Hills Habitat Preservation Authority and lands proposed by Los Angeles County to be included in the Puente Hills Significant Ecological Area. The Puente Hills Landfill would not be included in the boundary. However, at some time in the future, the NPS and the Puente Hills Habitat Preservation Authority could enter into management agreements with the Sanitation Districts of Los Angeles County to provide recreational opportunities in this area.

The San Gabriel unit would include approximately 49,000 acres of land; approximately 37% of this area is already protected for conservation or recreation by existing agencies and organizations.

Angeles National Forest

The San Gabriel Mountains, within the Angeles NF, are also addressed in the selec ted alternative. However, no new designation would be applied to this area.

Management

San Gabriel Unit

The San Gabriel unit of the Santa Monica Mountains NRA would be managed in partnership with agencies and organizations with land and interests in the area. Agencies and organizations that own and manage land within the San Gabriel unit would continue to manage their lands according to their own policies and regulations. NPS policies would only apply to lands that the NPS acquires. As much of the land within the NRA is currently in public ownership and much of the remaining land is comprised of commercial and residential uses inappropriate for NPS management, land acquisition by the NPS would be limited.

The San Gabriel unit partners could include, but would not be limited to, the following agencies: the U.S. Forest Service, the National Park Service, the Lower Los Angeles and San Gabriel Rivers and Mountains Conservancy, the Puente Hills Habitat Preservation Authority, the U.S. Army Corps of Engineers, the California Department of Parks and Recreation, the California Department of Fish and Game, the U.S. Fish and Wildlife Service, the U.S. Geological Survey, Los Angeles County, the Santa Monica Mountains Conservancy, the Wildlife Corridor Conservation Authority, the Mountains and Recreation Conservation Authority, and the Watershed Conservation Authority. Local communities/cities could also participate in the partnership. Through cooperative management agreements, partners would be able to provide coordinated educational and recreational programming, and share funding, staff, and facilities. In existing public land areas, interagency agreements could augment agency staffing to manage heavily used areas providing higher levels of visitor services, education, and safety. Other partnerships could also be established, such as with community-based organizations and tribal groups.

NPS Role. The NPS would take a lead role in coordinating partnership-based activities within the San Gabriel unit. Through cooperative management agreements, the NPS could also provide educational, interpretive, law enforcement and other services to partner agencies. The NPS would also take a lead role in providing coordinated interpretative and educational messages about the significance of the San Gabriel watershed and mountains for existing nature centers, museums, park programs, etc.

The NPS would have no land use regulatory authority for lands that it does not own. As funding permits, the NPS would be authorized to acquire lands from willing sellers within the San Gabriel unit to protect significant resources or for operational purposes.

The NPS would offer technical assistance to interested public agencies, private landowners, and organizations to create and connect parks, conserve habitat, provide new recreational experiences, and foster a sense of regional identity. The NPS could also assist in organizing volunteer programs within the San Gabriel unit and on the Angeles NF.

Angeles National Forest

The Angeles NF would continue to be managed by the USFS according to existing guiding policies. Additional guidance would authorize the USFS to enter into cooperative management agreements with local agencies and conservancies to protect biodiversity and watershed resources, interpret significant resources, enhance recreational opportunities, and provide more educational and interpretive opportunities within San Gabriel Mountains. In addition, the Angeles NF would have the ability to accept donations from philanthropic and partner organizations to improve facilities and resources.

Service First Authority. Legislative guidance would also direct the USFS and the NPS to engage in partnership efforts and interagency coordination to protect the significant resources of the San Gabriel watershed and mountains, provide high quality recreation and education opportunities, and assist the surrounding communities in providing community-based recreation and conservation opportunities. Such partnerships could be facilitated through the Service First authority and other mechanisms.

The laws creating the Service First authority (December 2011) give the Secretaries of the Interior and Agriculture the authority to establish programs involving certain land management agencies to:

- Conduct activities jointly or on behalf of one another;
- Collocate in federal offices or leased facilities; and
- Make reciprocal delegations of their respective authorities, duties and responsibilities
- Make transfer of funds and reimbursement of funds on an annual basis, including transfers and reimbursements for multi-year projects.

The Service First authority provides for interagency operational efficiency in attaining shared goals and missions, allows agencies to develop programs and projects tailored to meet shared objectives, allows agencies to share equipment, facilities and other resources to accomplish mutually agreed-upon work, and allows the re-delegation of staff authorities, duties and responsibilities among participating Service First agencies (NPS, USFS, BLM, FWS). Execution of partnership efforts is achieved through a Service First agreement, which documents agency commitment to accomplish mutual interest. Allocation of specific funding can be identified to implement and accomplish programs and projects outlined in a Service First agreement.

Existing Agencies, Regulatory Authorities, and Land Use

San Gabriel Unit

Much of the land within the proposed San Gabriel unit (approximately 37%) is already protected by various agencies and organizations. The National Park Service recognizes that existing public agencies, private conservation organizations, and individuals successfully manage important natural and cultural resources and recreational opportunities within the proposed San Gabriel unit. The NPS applauds these accomplishments and actively encourages the expansion of conservation activities by state, local, and private entities and by other federal agencies.

Retention of Local Land Use and Existing Regulatory Authorities. The designation of an NPS national recreation area unit would not establish additional regulatory or land use authorities over local governments. The NPS is not a regulatory agency. NPS land management policies and regulations would only apply to lands that the NPS acquires. The NPS would only consider acquiring land on a limited basis from willing sellers. The selected alternative would respect existing general plans and local zoning, as well as state and local laws and policies for lands that are not federally owned.

Protection of Water Supply, Flood Protection, and Sanitation Infrastructure Facilities and Functions. The Los Angeles metropolitan region has highly complex systems of public infrastructure to transport and store local and regional water supplies. In addition, numerous facilities are necessary to treat wastewater and manage solid waste. Many of these facilities are located on or near the San Gabriel River. The San Gabriel River Watershed Study Act of 2003 (P.L. 108-042) directed that the study consider regional flood control and drainage needs and publicly owned infrastructure such as wastewater treatment facilities. The study recommends that any resulting legislation ensure that infrastructure designed for flood protection, storage and transport of water supplies, treatment of water and wastewater, and management of solid waste would be unaffected by the designation. This includes exemption from 16 U.S.C. § 460l-22(c) (prohibition of solid waste disposal operations in national parks) for existing solid waste facilities and operations, such as landfills and transfer stations, within the San Gabriel unit.

The selected alternative would retain existing water rights. Management of water supply and treatment plants would continue under current authorities. The proposed San Gabriel unit designation would not entail any new or future beneficial uses or requirements for water supply, water quality, or air quality regulations.

Private Property Rights. Any legislation proposed to implement study recommendations should specify that eminent domain would not be used for land acquisition within the San Gabriel unit. The NPS would only consider acquiring land on a limited basis from willing sellers. Designation would not impact local land use authority over lands not owned by the NPS.

Fire Protection. Fire protection would remain the responsibility of existing federal, state, and local agencies (Los Angeles County, U.S. Forest Service, California Department of Forestry and Fire Protection). The San Gabriel unit partnership could work together to take a pro-active approach to coordinated resource management to reduce catastrophic fires.

Angeles National Forest

U.S. Forest Service management of existing Angeles NF lands would continue. USFS policies would continue to be applied to management of these lands.

Education and Interpretation

San Gabriel Unit

Through new interpretive and educational programs, the NPS would engage people of all ages in learning about the significant natural and cultural resources within the San Gabriel watershed and mountains. Examples of interpretive messages would include the history and importance of water resources, regional biodiversity, the geological significance of the San Gabriel Mountains, Native American history and prehistory, the role of fire on the landscape, and early California settlement.

The NPS would coordinate a voluntary information network to partner with established environmental education centers, visitor centers, etc. throughout the watershed to help augment and enrich interpretive and educational programming related to the significance of the San Gabriel watershed and mountains. The primary role of the NPS within the San Gabriel unit would be to lead the effort to provide coordinated interpretive messages and educational programs. The NPS would also work with partners to develop accessible interpretive and educational materials, including multi-lingual information and signs, to reach broader audiences.

In addition to programs conducted within the San Gabriel unit, NPS staff would coordinate with local school districts and area youth organizations to conduct environmental stewardship programs and engage youth in learning about the natural world around them. When needed and as funding permits, new facilities and programs could be developed to support educational efforts. The NPS Junior Ranger program could be promoted for school-aged children. There are also opportunities to inspire youth about the rich cultural heritage of the region.

Angeles National Forest

The Angeles NF would be recognized for its nationally significant resources associated with the San Gabriel Mountains. Working through Service First agreements, the USFS and

the NPS would provide more interpretive information about significant resources and offer new educational programs. Educational programs would emphasize to visitors the value of watershed resources and how to recreate in a way that is compatible with protecting such resources. New opportunities for educational programs associated with the San Dimas Experimental Forest would be explored.

Recreational Opportunities and Access

San Gabriel Unit

Within the San Gabriel unit, a variety of recreational opportunities would continue to be available to the public. Many communities in the region, however, lack appropriate access to park and recreational resources. Recreational uses and activities would be determined by the existing land management agency. The NPS and partner agencies would seek to improve recreational access and opportunities in urban areas that are deficient in recreation and park lands by offering assistance in planning for close-to-home recreational opportunities, better trail access, and improved public transportation options to recreational areas. Additionally, the NPS and partner agencies would explore opportunities to restore vacant or unused land to provide new recreational opportunities.

The NPS and partners would work together to target underserved and disadvantaged communities for engagement in the opportunties for and benefits of outdoor recreation. Children in communities that do not have adequate access to outdoor recreation tend to have higher rates of childhood diseases related to obesity such as diabetes. The NPS would conduct outreach to local communities, organizations, and schools to promote opportunities for healthy recreation in the San Gabriel unit.

The NPS would also work with partners to seek ways to improve the recreational experience in more heavily impacted areas by providing more education, improving facilities, improving maintenance and law enforcement, and enhancing visitor management to reduce impacts. Improved recreational experiences in more rural areas could focus on protecting the rural recreational experience by providing better trail connections and improved equestrian staging areas.

The voluntary information network would identify parks and sites with recreational and learning opportunities. This network would be expansive, including sites with recreational and learning opportunities associated with the San Gabriel River watershed, the Puente Hills, and the San Gabriel Mountains. At each site, visitors could find maps and guides linking one site with others pertaining to the same or related themes.

Many agencies are currently working to improve accessibility, as is required by the Americans with Disabilities Act. The NPS would work with partners to improve recreational access to the area's parks and public lands for persons with disabilities.

Angeles National Forest

Recreation is the primary use in the Angeles NF. With over 3 million annual visitors, the Angeles NF has one of the highest national forest visitation levels in the nation. Over the past ten years, funding for recreation, interpretation, and education has remained flat. Increased attention and focused management resulting from new legislative directives may encourage additional or reprioritized federal funding for enhancing recreation in the San Gabriel Mountains. This could include improved visitor management in heavily used recreational areas as a result of more forest rangers, better facilities, improved trail connections and trailheads, better educational efforts, and new approaches to manage visitation.

Existing recreational opportunities would remain on the Angeles NF pursuant to USFS established rules and regulations. Future decisions regarding appropriate recreational opportunities would continue to be determined by the USFS, including administration of any recreational special use permits such as for recreational residences and ski areas.

New partnership opportunities may also assist the Angeles NF in fundraising for improved recreational experiences and planning for recreational connections (e.g. trails, bicycle paths). The NPS and USFS would partner and work together on recreational opportunities on the Angeles NF through Service First agreements. Such agreements allow the two agencies to share staff, funding, and offices to achieve mutual objectives.

Resource Protection (Ecological Communities and Cultural Resources)

The selected alternative would emphasize protecting significant resources associated with the San Gabriel Mountains and Puente Hills.

San Gabriel Unit

The NPS would facilitate opportunities to work in collaboration with resource management agencies and organizations to conserve and enhance resources through research, cooperative management, monitoring, and restoration. Ecological communities could be enhanced by additional scientific knowledge, expertise, and technical assistance.

The NPS and partner agencies would work together to identify opportunities to protect ecosystems and wildlife corridors. For example, the San Gabriel Mountains and Puente-Chino Hills are refuges for rare and endangered species. These species need to be able to move to and from these open space areas, particularly in the case of wildfire events and for adaptation associated with climate change. Better ecosystem connectivity also fosters greater biodiversity. The NPS and partner agencies would seek to leverage additional funding for ecological restoration and wildlife habitat conservation efforts.

Coordinated cultural resource management would also be an emphasis. The NPS would seek to document, protect and interpret cultural resources within the San Gabriel unit. Such efforts would improve the ability of the NPS to develop interpretive materials and programming related to cultural resources.

Angeles National Forest

The Angeles NF would continue to balance use and resource protection in accordance with its multiple-use policy. Legislative guidance could affirm the original intent of the national forest to protect watershed resources. Legislation could bring additional, tools, and resources to the Angeles NF in order to steward the significant geological and biological resources associated with the San Gabriel Mountains. For example, the San Gabriel Mountains function as a refuge for many rare and endangered species. To protect the habitats and ecosystems associated with these species, the USFS could enter into management agreements with non-federal agencies and organizations to protect habitat that spans multiple jurisdictional boundaries, providing opportunities for the dispersal of wildlife and plants within the forest and into other areas. Protection of habitat across the region would also benefit wildlife and plant adaptation to climate change. In general, a higher priority would be placed on ecological restoration.

The San Gabriel Mountains are rich in cultural resources including archeology, Native American resources, historic recreation sites, historic mining sites, architecture, and historic flood protection structures. New resources could be allocated to document, protect, and interpret cultural resources in the San Gabriel Mountains. Programs could be designed for the public to experience the cultural, historical, and spiritual value of the San Gabriel Mountains.

Operations and Maintenance

San Gabriel Unit

Existing agencies would continue to be responsible for the operation and maintenance of their lands and facilities. The NPS would be responsible for operations and maintenance of lands which it acquires.

Staffing. Given NPS budget constraints, it is likely that the San Gabriel unit would initially have a small staff, or rely on support from existing staff at Santa Monica Mountains NRA. However, funding would likely increase over time, subject to Congressional budget priorities. Soon after establishment, the NPS would complete a unit management plan that would identify park priorities, management emphases, and required NPS staffing for a 15-20 year timeframe.

Because the San Gabriel unit would be managed as part of the Santa Monica Mountains NRA and managed in partnership with other agencies, less staff would be required than what would be expected in a traditional national park. Partnership parks typically require staff to handle park coordination and outreach, assist partners with conservation planning, and provide interpretive and educational programs.

Based on comparisons of staffing levels for existing partnership parks of similar size and with small NPS landownership, the following types of staff might be recommended for the selected alternative. Some positions would be shared with the Santa Monica Mountains NRA staff based in Thousand Oaks, CA.

- Partnership Specialist
- Unit Manager
- Administrative Assistant
- Visitor Use Assistant
- Interpretive Park Rangers
- Law Enforcement Park Rangers
- Teacher Ranger
- GIS Technician
- Volunteer/Outreach Program Coordinator
- Education Program Specialist
- Cultural Resource Specialist
- Outdoor Recreation Planner/Community Planner
- Wildlife Ecologist
- Biological Technician

Through Service First or cooperative management agreements, the NPS and other partner agencies could share staff, facilities, and funding to assist in the operations and maintenance of heavily used visitor areas. For example, the NPS could provide rangers to supplement USFS staff in high use areas of the Angeles NF. The NPS and partners agencies could also leverage funding and resources to improve existing facilities or provide new facilities where necessary.

The NPS would coordinate new partnerships and facilitate the development of more volunteer programs to assist in the maintenance of facilities, preservation/restoration efforts, and interpretation of significant resources. Additionally, the NPS would provide opportunities for job training and conservation stewardship programs for youth and community members.

Land Acquisition. Lands within the San Gabriel unit would remain under their current jurisdictions, with each land management agency continuing to fund its own operations. Approximately 37% of the land in the proposed NRA is already protected for recreation and conservation by partner agencies (18,500 of approximately 49,000 acres). Much of the remaining lands are comprised of commercial and residential uses that would not be appropriate or feasible for NPS land acquisition. The NPS could request funding for land acquisition for acquisition of areas with resource significance such as a historic site or open space with native habitat. NPS land acquisition funding is extremely limited. Partner agencies may also pursue

land acquisition within the San Gabriel unit. The NPS would be directed to identify priority parcels for acquisition (through donation or purchase) within two years of designation.

Operational and Visitor Facilities. Construction of new administrative facilities for NPS operations and management would not likely be required to support the proposed San Gabriel unit. Some staff and operational work could be accomplished at existing facilities within the Santa Monica Mountains NRA. However, given the distance to the San Gabriel Valley, an operational presence would also be necessary in the San Gabriel unit, particularly for education, outreach, and agency coordination positions. Given the existing amount of office space available in and near the proposed San Gabriel unit, it is likely that the NPS could share administrative and operational facilities with partner agencies or lease other office space available in the area. There may also be opportunities to adaptively reuse an historic building or property if the NPS acquired land that contained such facilities. The NPS could also use partner facilities or adaptively reuse buildings to provide visitor facilities. The Angeles NF and various local and state park and recreation agencies also operate and manage existing visitor facilities. If established, the NPS would identify specific operational and visitor facilities needs through a unit management plan.

Angeles National Forest

Legislative guidance may direct additional funding for operations and maintenance of the Angeles NF to provide more rangers and other staff in heavily used visitor areas. New volunteer programs would be developed to assist in the maintenance of facilities, preservation/restoration efforts, and interpretation of significant resources.

Use of the Service First authority would improve the customer service, effectiveness and efficiency of the NPS and Angeles NF in attaining shared goals by authorizing the two agencies to use each other's staff, equipment, facilities, and other resources, as appropriate, to accomplish mutually agreed-upon work.

Funding and Costs

The selected alternative would rely on the funding streams of partner agencies, as well as newly authorized NPS funding. Legislative guidance for the Angeles NF may authorize additional funding. Working in partnership with the NPS and other agencies, partners may be able to explore new fundraising opportunities to achieve resource restoration and protection goals, as well as provide improved recreation, interpretation, and educational facilities and programs.

San Gabriel Unit

The NPS would need additional federal funding for its administrative, educational, technical assistance, and interpretive roles. In addition, the NPS and partner agencies could establish a fundraising organization, be a coordinating body for existing grant programs, and work together to leverage funds from a variety of sources (e.g. state bonds, Land & Water Conservation Fund) to increase and prioritize funding for projects and staff in the San Gabriel Watershed and Mountains. Partner organizations could also work together to leverage private funding and donations.

NPS operating costs for national recreation areas vary widely, depending on the amount and type of resources managed, number of visitors, level of programs offered, safety and security issues, and many other factors. While no formal estimates of operating costs have been completed for this study, budgets from comparable NPS units illustrate the potential range. Boston Harbor Islands NRA, Chattahoochee River NRA, Mississippi National River and Recreation Area, and Santa Monica Mountains NRA are all partnership-based NPS units comprised primarily of non-NPS lands. The annual operating base budgets for these units range from $1.22 million to $8.9 million. Based on the size of the area, and the types of services and assistance offered through the partnership, the cost of NPS operations for the San Gabriel unit could be expected to be $1 to $3 million. The operational budget would primarily fund salaries. Additional costs would include leasing or maintaining administrative space, interpretive and educational materials or media, and maintenance of any NPS-owned facilities or lands.

Planning and Implementation Projects. The San Gabriel unit would be eligible to receive funding for planning and projects through the NPS. For example, soon after establishment, the NPS could provide initial planning funds for a unit management plan which would define management priorities, more specific actions, and funding needs for the San Gabriel unit. The unit management plan would be completed in collaboration with partners. A unit management for the size and scale of unit proposed in the selected alternative would likely take 4 to 5 years to complete and could cost between $500,000 and $700,000. Additional NPS funding may also be available for specific projects such as trail planning and development and interpretive materials. A unit management plan would identify more specific implementation needs.

Many NPS partnership parks also rely on private fundraising through "friends" groups. The funds raised through these groups can be used to supplement the operating budgets of the partners. At Boston Harbor Islands NRA, for example, the Boston Harbor Island Alliance is a nonprofit organization authorized through legislation to raise and manage funds for facilities and programming on partner lands. In 2008, the Alliance spent $2.25 million for visitor programming and capital improvements within the NRA on lands owned by state, federal, municipal, and private entities. In addition, the Alliance received $5 million for environmental mitigation projects over several years, to be used on partner lands.

Angeles National Forest

In order to accomplish the goals of the selected alternative, additional funding would be required, either through appropriations, partnerships, or philanthropy. The increased attention and a narrower management focus may encourage additional or reprioritized federal funding, over time, for the Angeles NF to achieve resource restoration and protection goals, as well as provide improved recreation, interpretation, and educational facilities, and programs.

The Angeles NF receives the majority of its funds through allocations appropriated by Congress. In FY2011, the Angeles NF received $32 million in funding for the entire forest. Of this amount, 60%, or $19.3 million, was budgeted for wildfire preparedness and fuels reduction, with the remaining 40%, or $12.7 million, covering all other operations. Of this funding, $2.9 million was appropriated for recreation, planning, resources, and wildlife management. Capital Improvement funds which includes facilities, trails, and roads maintenance totaled $900,000 for the entire forest. When adjusted for inflation, the Angeles NF has had a continuing drop in non-fire operational funding since 1995. Within the study area, total funding for the Angeles NF for FY2011 is $7.4 million (non-fire). Of this amount, $1.7 million is allocated to recreation (700k), planning, resources, and wildlife management. Only $540,000 is allocated to capital improvements including facilities, trails, and roads maintenance, $78k of this is allocated for trail maintenance.

The Angeles NF does receive revenue from a variety of forest programs and users, especially use fees collected under the Recreation Enhancement Act (the Adventure Pass). This source of funding has become increasingly important, as it can be used for a wider range of purposes than reimbursable revenue, and has helped to supplement appropriated funds. However, the cost of enforcing and administering this program is almost equal to the revenue.

This study recommends that any resulting legislation provide for specific additional funding to be allocated each year for recreation, planning, visitor services, wildlife management, and resource protection. Without this legislative direction, the Angeles NF is not likely to experience an increase of appropriated funds to meet the objectives of the selected alternative.

Additional opportunities for increased funding exist from outside sources. Legislation could allow the USFS to accept direct donations and provide mechanisms for developing diverse partnerships with nonprofit fundraising, support or friends groups. The elevated visibility and attention of a new designation adjacent to the Angeles NF, coupled with an increased sense of identity for those living in the region, could enhance the ability of the Angeles NF to more successfully raise private funds and seek special appropriations for particular projects. Legislative guidance could also create new authorities to retain fees such a special use permits, etc. to fund forest operations and programs.