



Draft

# San Gabriel Watershed and Mountains

## *Special Resource Study and Environmental Assessment*

September 2011

Produced by the Pacific West Regional Office  
Park Planning and Environmental Compliance  
National Park Service  
San Francisco, California

U.S. Department of the Interior  
Washington, DC



Top, left to right: Frank G. Bonelli Regional Park, NPS photo; Inspiration Point, Angeles National Forest, NPS photo.  
Bottom: Eaton Canyon Natural Area, NPS photo.





California Broom Sage, Santa Clara River near Acton. Photo courtesy of BonTerra Consulting.

# Table of Contents

<b>Abstract</b>	<b>v</b>		
<b>Executive Summary</b>	<b>vi</b>	<b>6: Alternatives</b>	<b>159</b>
<b>1: Introduction</b>	<b>1</b>	INTRODUCTION	161
PURPOSE AND NEED	3	ISSUES ADDRESSED IN THE ALTERNATIVES	161
ISSUES ADDRESSED IN STUDY	4	OVERVIEW OF THE ALTERNATIVES	162
STUDY AREA	4	ALTERNATIVES CONSIDERED BUT DISMISSED	163
STUDY PROCESS	6	ITEMS COMMON TO ALL ACTION ALTERNATIVES	164
RELATED PLANS AND STUDIES	9	DESCRIPTION OF THE ALTERNATIVES	165
<b>2: Resource Description</b>	<b>11</b>	Continuation of Current Management (No Action Alternative)	165
NATURAL RESOURCES	13	Alternative A: San Gabriel Mountains National Recreation Area	171
CULTURAL RESOURCES	52	Alternative C: San Gabriel Watershed National Recreation Area	175
RECREATIONAL RESOURCES	81	Alternative D: San Gabriel Region National Recreation Area	184
<b>3: Resource Significance</b>	<b>97</b>	<b>7: Environmental Consequences</b>	<b>199</b>
CRITERIA FOR NATIONAL SIGNIFICANCE	99	INTRODUCTION	201
NATIONAL SIGNIFICANCE OF THE SAN GABRIEL WATERSHED AND MOUNTAINS STUDY AREA	99	METHODS AND ASSUMPTIONS	201
NATIONAL SIGNIFICANCE CRITERIA	100	ANALYSIS ASSUMPTIONS	201
OVERALL CONCLUSIONS	116	IMPACT CRITERIA	203
OTHER SIGNIFICANT RESOURCES WITHIN THE STUDY AREA	116	POTENTIAL ENVIRONMENTAL IMPACT TOPICS	204
<b>4: Suitability</b>	<b>121</b>	EFFECTS ON BIOLOGICAL RESOURCES	206
INTRODUCTION	123	EFFECTS ON CULTURAL RESOURCES	214
NPS THEMEATIC FRAMEWORK - NATURAL AND CULTURAL THEMES	123	EFFECTS ON RECREATION USE AND VISITOR EXPERIENCE	217
COMPARISON OF SIMILAR AREAS BY THEME	125	SOCIOECONOMIC EFFECTS	223
SAN GABRIEL MOUNTAINS	125	LAND USE	233
PUENTE HILLS	144	EFFECTS ON WATER RESOURCES	239
SUMMARY: SUITABILITY	148	GOALS OF THE ALTERNATIVES	244
<b>5: Feasibility and Need for NPS Management</b>	<b>149</b>	ENVIRONMENTALLY PREFERRED ALTERNATIVE	245
INTRODUCTION	151		
EVALUATION OF FEASIBILITY FACTORS	151		
NEED FOR NPS MANAGEMENT	157		



## **8. Consultation & Coordination** **253**

PUBLIC INVOLVEMENT 255

AGENCIES AND ELECTED OFFICIALS  
TO WHOM COPIES OF THE REPORT  
WERE SENT 259

## **Appendices** **265**

APPENDIX A: STUDY LEGISLATION 267

APPENDIX B: SPECIES TABLES 268

APPENDIX C: NEW AREA STUDIES ACT 287

APPENDIX D: 2006 NPS MANAGEMENT  
POLICIES (SECTIONS 1.2 AND 1.3) 289

APPENDIX E: NATIONAL HISTORIC  
LANDMARK CRITERIA SEC. 65.4 292

APPENDIX F: ALTERNATIVE B: SAN  
GABRIEL PARKS AND OPEN SPACE  
NETWORK 294

## **Acronyms & Abbreviations** **295**

## **Glossary** **296**

## **References** **301**

## **Preparers** **316**

## **Tables**

Table 1: Significant Earthquakes Within or Near the Study Area	24
Table 2: Groundwater Basin	32
Table 3: Inventory of Cultural and Archeological Resources within the Study Area - Representation of National Park Service Themes	75
Table 4: Agencies Administering Parks and Open Space in the Study Area	81
Table 5: Approximate Acreage of Study Area Parks and Open Space	84
Table 6: Summary of National Significance	119
Table 7: Summary of Areas Suitable for Inclusion in the National Park System	148
Table 8: Feasibility Factors Issues and Conclusions	156
Table 9: National Recreation Area Annual Operating Budgets	181
Table 10: National Recreation Area Annual Operating Budgets	189
Table 11: Summary of Alternatives	192
Table 12: Potential Environmental Impact Topics	204
Table 13: Threats to Federal and State Listed Threatened and Endangered Plant and Animal Species	209
Table 14: Visitation to Major Recreation Destinations within the Study Area	218
Table 15: Standards for Parks and Open Space	219
Table 16: Children's park access in seven major cities	220
Table 17: Population	225
Table 18: Social and Cultural Characteristics	226
Table 19: Income and Unemployment	227
Table 20: Tourism	228
Table 21: Spending and Economic Impacts of Visitors to NPS Partnership Parks on Local Economics, 2008	230
Table 22: Payroll Impacts of National Park Partnership Parks without Visit Counts, FY 2008	230
Table 23: Impaired Surface Waters within the Study Area	241

Table 24: Groundwater Basin Water Quality	241
Table 25: Summary of Environmental Consequences	246
<b>Maps</b>	
Local Communities	10
Topography	15
Generalized Geology	18
Generalized Geology Legend	19
Regional Faults	23
Mineral Resources - Major Commodities and Oil Provinces	27
Watersheds	29
Flood Protection Facilities	31
Groundwater Basins and Water Supply Facilities	33
Vegetation	37
Federally-Listed Threatened and Endangered Species	45
Designated Critical Habitat	46
Land Use	50
Native American Groups in the Region	54
Ranchos	59
Cultural Resources	80
Parks and Open Space	82
Trails, Bikeways and Scenic Highways	87
Nationally Significant Regions	101
National Park Biophysiological Regions	124
Statewide California Walnut Woodland and Forest Distribution	147
Continuation of Current Management (No Action)	170
Alternative A: U.S. Forest Service National Recreation Area	174
Alternative C: San Gabriel Watershed National Recreation Area	182
Alternative C: San Gabriel Watershed National Recreation Area River Corridor Detail	183
Alternative D: San Gabriel Region National Recreation Area: A Partnership Linking Significant Resources and Recreation	190

Alternative D: A Partnership Linking Significant Resources and Recreation Area Detail - River Corridor and Puente Hills	191
Acres of Parks Per 1,000 Residents	221

## Figures

Figure 1: Location and Context	6
Figure 2: Median Household Incomes	227



# Abstract

The National Park Service (NPS) prepared the *Draft San Gabriel Mountains and Watershed Special Resource Study* to determine whether all or part of the study area is significant, suitable, and feasible for designation as a unit of the national park system. Congress authorized this study in 2003. The study area covers approximately 700,000 acres of land in the greater Los Angeles metropolitan region, including urban communities, local and regional parks and open space, and 415,000 acres of the Angeles National Forest.

Through the special resource study process, the NPS made the following determinations about the study area:

- Natural and cultural resources of the San Gabriel Mountains and Puente-Chino Hills are **nationally significant**, in that they meet all four of the NPS criteria for national significance.
- The study area is **suitable for inclusion** in the national park system because it represents natural and cultural resource types that are not already adequately represented in the national park system or protected by another land managing entity.
- The NPS determined that a **collaborative partnership-based park unit** which respects the complex mix of land use, ownership, and regulatory authority in the study area **would be a feasible addition** to the national park system. A large traditional national park unit, owned and operated solely by the National Park Service, is not feasible.
- **Need for NPS Management:** NPS management in partnership with existing agencies and organizations is the best option for enhancing protection of significant resources, for improving access to recreational opportunities in the region, and for providing coordinated interpretation and education about significant resources.

The NPS evaluated four alternatives in the draft study, two include a role for the NPS:

**No Action Alternative: Continuation of Current Programs and Policies.** This is the “no action” alternative for this study, and assumes that current programs, policies, conditions, and trends would continue.

- **Alternative A: San Gabriel Mountains National Recreation Area (A U.S. Forest Service Designation).** In this alternative,

Congress would designate the San Gabriel Mountains unit of the Angeles National Forest a National Recreation Area (NRA) that would continue to be managed solely by the U.S. Forest Service.

- **Alternative B- San Gabriel Parks and Open Space Network (Dismissed):** *This alternative was dismissed from further consideration after public review of the preliminary alternatives (Newsletter 4). Some components of alternative B were incorporated into alternative D.*
- **Alternative C: San Gabriel Watershed National Recreation Area.** This alternative proposes a river-based national recreation area that would raise the visibility of the San Gabriel River watershed, offer new educational and interpretive opportunities along the river and throughout the watershed, and improve river-based recreation. This would be collaboratively-managed, partnership-based national park unit. Partnership arrangements among federal and state agencies, local governments, non-profit organizations, and area landowners would achieve the conservation, recreational, and educational goals of the national recreation area. The NPS would take a lead role in management of the partnership, particularly in the area of interpretation and education.
- **Alternative D: San Gabriel Region National Recreation Area (A Partnership Linking Significant Resources and Recreation).** In this alternative, Congress would designate a larger scale national recreation area that would recognize and protect the significant resources associated with the San Gabriel Mountains and Puente-Chino Hills, explore opportunities to protect and enhance interconnected ecosystems, provide important open space connections for recreation, and offer new educational and interpretive opportunities. The management approach of alternative D would be collaborative, as in alternative C. The NPS would take a lead role in management of the partnership, particularly in the area of interpretation and education.

The NPS prepared an environmental assessment to identify and analyze the potential environmental and socioeconomic consequences of the four alternatives. The NPS concluded that alternative D would be the environmentally preferable alternative because it would protect resources over a significantly larger area, provide greater opportunities for recreation and visitation, provide greater socioeconomic benefits, and foster a larger framework for cooperative management as compared to alternatives A and C.

# Executive Summary

## Background and Study Process

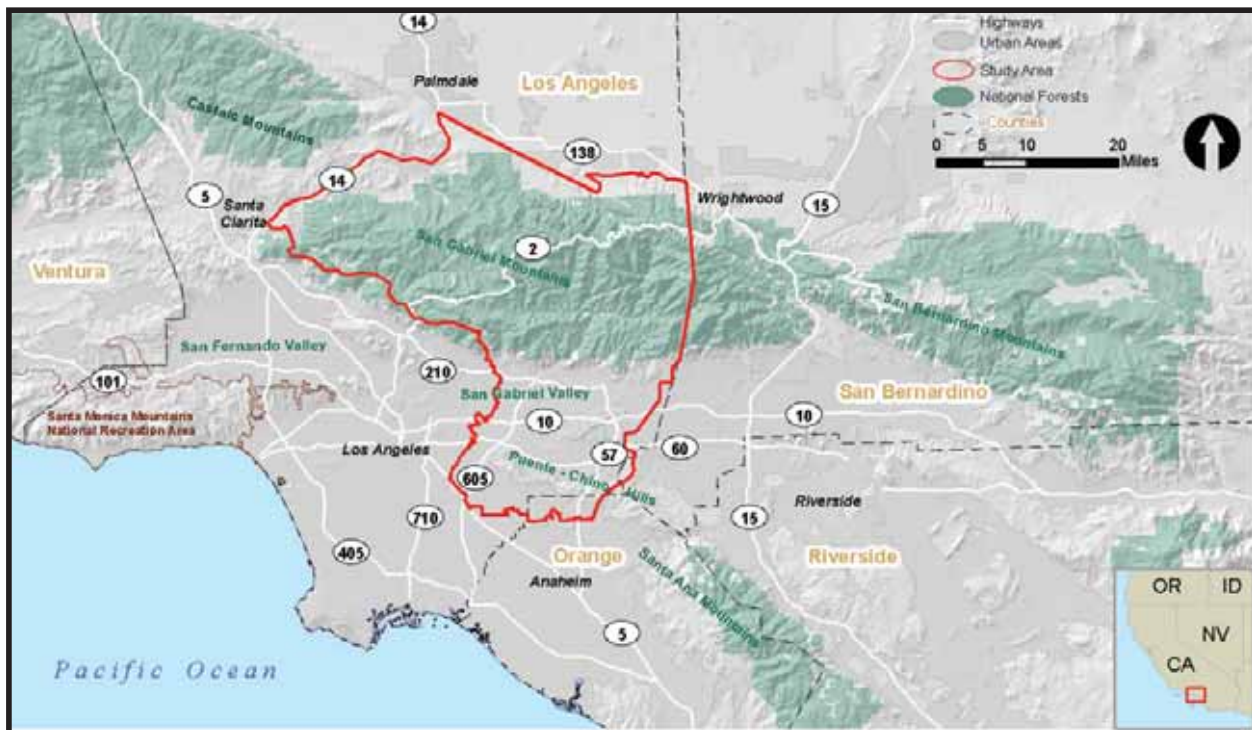
The San Gabriel River Watershed Study Act (PL 108-042, July 2003) directed the National Park Service (NPS) to conduct a special resource study of (1) the San Gabriel River and its tributaries north of and including the city of Santa Fe Springs, and (2) the San Gabriel Mountains within the territory of the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy (RMC).

The San Gabriel River Watershed Study Act also directed the NPS to consult with the RMC and other appropriate federal, state, and local government entities in conducting the study. Additionally, the study act directed the NPS to consider regional flood control and drainage needs and publicly-owned infrastructure such as wastewater treatment facilities.

The purpose of this special resource study is to determine whether any portion of the San Gabriel Watershed and Mountains study area is eligible to be designated as a unit of the national park system. Through the study process, the NPS identified alternative strategies to manage, protect, or restore the study area's resources, and to provide or enhance recreational opportunities. These alternatives explore partnerships and efforts to protect important resources in ways that do



West Fork of the San Gabriel River. 2005. NPS photo.





not necessarily require the commitment of funds and staff by the NPS. This study will provide information to aid Congress, the U.S. Department of the Interior, and the NPS in determining whether designation of a unit of the national park system is desirable and appropriate.

## Study Area

The study area covers more than 1,000 square miles (over 700,000 acres) in the greater Los Angeles metropolitan region. It is one of the most densely populated and diverse areas of the United States. Most of the study area is located in Los Angeles County (approximately 85%), the remainder lies in Orange and San Bernardino counties. The U.S. Forest Service currently manages approximately two-thirds of the study area (415,000 acres in the San Gabriel Mountains) as part of the Angeles National Forest (ANF). With the exception of private inholdings and access facilities for flood protection structures and other utilities, the ANF remains primarily undeveloped. In close proximity to highly urban areas, the ANF provides a refuge for wildlife and recreational opportunities for the greater Los Angeles metropolitan region.

## Legislative and Policy Direction

The National Park System New Area Studies Act and NPS management policies establish the basic process for evaluating potential new additions to the national park system. According to NPS management policies, a proposed addition to the national park system will receive a favorable recommendation from the NPS only if it meets all of the following four criteria for inclusion:

1. it possesses nationally significant natural or cultural resources;
2. it is a suitable addition to the system;
3. it is a feasible addition to the system; and
4. it requires direct NPS management, instead of alternative 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, while recognizing that there are other management alternatives for preserving the nation's outstanding resources.

National Park Service management alternatives are developed for study areas that meet all four of the criteria for inclusion, as listed above. Further definition of these criteria is provided in the related sections of this study.

## Public Involvement

Throughout the study process, the planning team conducted extensive public outreach. The NPS held numerous public and stakeholder meetings throughout the region. Four newsletters were published at various stages of the study process and distributed to the study mail and e-mail lists. The study mailing list includes approximately 2,000 addresses and the study e-mail list includes approximately 900 addresses. The NPS has made all information sent by mail and e-mail available on the study website, [www.nps.gov/pwro/sangabriel](http://www.nps.gov/pwro/sangabriel). Additionally, numerous articles and opinion pieces covering the study have appeared in area newspapers.

The NPS initiated this special resource study in January 2005 with a newsletter describing the study process and opportunities for the public to participate. Public scoping meetings were held in March 2005 in the communities of Claremont, Diamond Bar, Downey, Rosemead, and Acton. The NPS published the results of the public scoping process in a second newsletter.

In early 2006, the NPS refined the study area to add portions of the Rio Hondo River watershed and to remove cities within the Gateway Cities Council of Governments jurisdiction. In addition, the NPS revised the study scope to directly address concerns about potential impacts on local land use control and agency authorities. The NPS committed to producing a study that would respect property rights and the authorities that currently belong to existing local, state, and federal agencies. The NPS continued to consult with public land management agencies and elected officials throughout the study process.

Between 2006 and 2008, the NPS analyzed resources and developed preliminary alternatives. The NPS worked with local agencies and resource experts in analyzing the significance of the study area resources. In 2007-2008, the NPS worked on development of the preliminary alternatives, consulting with other recreation and land conservation agencies within the study area. More information about outreach efforts during this time period is included in Chapter 8 of the study report, *Consultation and Coordination*.

In fall of 2009, the NPS released draft alternatives for public review and comment in a fourth newsletter. The study team produced and distributed over 3,000 newsletters to organizations and individuals on its mailing lists, partner agencies, and at public and stakeholder meetings. Between

August and October 2009, the study team held six public meetings at locations throughout the study area including Diamond Bar, El Monte, Santa Clarita, Glendora, Palmdale, and Tujunga. In addition to the public meetings, the NPS study team held meetings with local, state and federal government agencies, organizations, communities, and Congressional offices. The NPS received approximately 4,800 comments. Additional stakeholder meetings were held with various agencies in early 2010 to address specific concerns.

## Publication, Review and Transmittal

Publication of the *Draft San Gabriel Watershed and Mountains Special Resource Study* will be followed by a public comment period. The NPS study team will then revise the report if needed, and transmit it to the Secretary of the Interior. The Secretary will transmit the report to Congress, along with the Secretary's recommendation for the area.

## Significance

The National Park Service (NPS) uses four basic criteria to evaluate the national significance of proposed areas. These criteria, listed in the National Park Service *Management Policies*, state that a resource is nationally significant if it meets all of the following conditions:

- It is an outstanding example of a particular type of resource.
- It possesses exceptional value or quality in illustrating or interpreting the natural or cultural themes of our nation's heritage.
- It offers superlative opportunities for public enjoyment, or for scientific study.
- It retains a high degree of integrity as a true, accurate, and relatively unspoiled example of a resource.

The NPS evaluates national significance for cultural resources by applying the national historic landmarks (NHL) criteria contained in 36 CFR Part 65.

National Park Service professionals consult with subject matter experts, scholars, and scientists, in determining whether a study area is nationally significant. Natural and cultural resource experts and scholars, locally and within the NPS, contributed expertise, research, and technical review of the statement of significance. See Chapter 8, *Consultation and Coordination*, in the draft study report for more information on subject matter experts and their role in this portion of the study process.

Within the large and diverse landscape of the study area, two regions were found to be nationally significant: the San Gabriel Mountains and the Puente-Chino Hills. Because these regions have not been as heavily urbanized as the lowland valleys and floodplains of the study area, they are outstanding examples of the native southern California landscape. The San Gabriel Mountains are also culturally rich, with a long history of human use. Nationally significant cultural resources in the San Gabriel Mountains include the Mount Wilson Observatory and the San Dimas Experimental Forest.

There are significant resources in other portions of the study area. However, these resources are highly fragmented and surrounding development has, in many cases, negatively impacted their integrity.

## San Gabriel Mountains

The San Gabriel Mountains and foothills are nationally significant for their geologic resources, high biodiversity, dynamic river systems, and the long history of scientific study and discovery. Early conservation of the San Gabriel Mountains ensured that these areas were protected from rapid urbanization, which began in the late 19th century. Within a short distance, the mountains and foothills feature coastal, desert, montane, and sub-alpine ecological communities. This diverse landscape provides habitat for an abundance of rare and endemic plants and wildlife. In addition, the San Gabriel Mountains contain significant waterways and riparian areas, some of which are eligible National Wild and Scenic River segments. Nationally significant cultural resources include the San Dimas Experimental Forest, which contains some of the earliest and most comprehensively and continuously monitored research watersheds, and the Mount Wilson Observatory, which includes large telescopes that were used in significant astronomical discoveries.

## MOUNTAIN BUILDING AND DIVERSE GEOLOGY

- The San Gabriel Mountains are among the fastest growing mountains in the world. Forces from the San Andreas Fault to the north and a series of thrust faults on their south face are causing the San Gabriel Mountains to rise as much as 2 inches a year. This distinction makes the San Gabriel Mountains an excellent location to research or study mountain-building.
- Among the most geologically diverse ranges in Southern California, the San Gabriel Mountains are comprised of rock units from all the major geologic eras. The San Gabriel Mountains

contain the most extensive, best-exposed, and most completely studied exposures of several geologic formations including the San Gabriel Mountains anorthosite massif, the Mount Lowe plutonic suite, and Pelona schist. Some of the oldest rocks (over one billion years old) on the west coast of the United States are located in the San Gabriel Mountains.

- There is a long history of scientific study of the San Andreas Fault in southern California. Several historically significant geologic discoveries occurred in the San Gabriel Mountains.
- The dramatic change in elevation from sea level to 10,000 feet, coupled with striking landforms such as the Devil's Punchbowl, makes for a highly scenic landscape of contrasts.

### **HIGH LEVELS OF BIODIVERSITY**

- The topographically and geologically diverse mountains contain high levels of biodiversity. The plant communities in the San Gabriel Mountains provide habitat for 67 plant species and 105 wildlife species considered sensitive, rare, threatened or endangered.
- Outstanding examples of rare southern California ecological communities in the San Gabriel Mountains and foothills include: alluvial fan sage scrub, bigcone Douglas-fir, coastal sage scrub, relict juniper communities, riparian areas, and subalpine habitat.

### **DYNAMIC RIVER SYSTEMS**

- River systems within the San Gabriel Mountains meet the eligibility criteria for National Wild and Scenic River designation. Free-flowing sections of Little Rock Creek and the North, East, and West forks of the San Gabriel River retain high levels of integrity and support sensitive wildlife.
- Some of the best remaining alluvial fan sage scrub vegetation in the Los Angeles Basin is found within the study area.
- The San Gabriel Mountains are among one of the richest areas for freshwater fishes in southern California.

### **SCIENTIFIC RESEARCH AND DISCOVERY**

- Data collected in the San Dimas Experimental Forest since 1933 represents some of the earliest and most comprehensive records from continuously monitored U.S. Forest Service experimental watersheds in the United States. In 1976, the United Nations Educational, Scientific and Cultural Organization's (UNESCO) Man and the Biosphere Program recognized the San Dimas Experimental Forest as a "Biosphere Reserve." The San Dimas Experimental Forest contains structures that are excellent examples of Forest Service architecture constructed and maintained through Depression-era relief programs, as well as a lysimeter facility that is the largest structure of its type ever built.
- The Mount Wilson Observatory, established in 1904, includes five significant telescopes that laid the technological foundation for all large modern telescopes. Many of the major advances, such as the Big Bang theory and the greatest names in 20th-century astronomy, are associated with the observatory.

### **Puente-Chino Hills**

The Puente-Chino Hills in the Los Angeles basin contain rare native plant communities. Although this area is somewhat of an island of open space surrounded by urbanized areas, the Puente-Chino Hills and the Santa Ana Mountains to the southeast together encompass about 500,000 acres of wildlands containing significant biological resources.

### **HIGH LEVELS OF BIODIVERSITY**

- The Puente-Chino Hills are part of a biologically diverse regional wildlife corridor that provides habitat for ecological communities with an abundance of endemic, threatened, and rare plants and animals.
- Outstanding examples of southern California communities in the Puente-Chino Hills include coastal sage scrub, one of the most endangered plant communities in California, and the best remaining stands of California walnut-dominated forests and woodlands south of Ventura County.





Puente Hills and the San Gabriel Mountains. 2006. Photo by Bruce Perry, Department of Geological Sciences, CSU Long Beach.

## Suitability

To be considered suitable for addition to the national park system, an area must represent 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.

The National Park Service determined that the San Gabriel Mountains and Puente-Chino Hills portions of the study area are suitable for inclusion in the national park system, based upon 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.

## San Gabriel Mountains

The overall combination of cultural and natural resource values and themes represented by the San Gabriel Mountains is not comparable to any other national park unit or comparably managed areas. Represented within these themes are unique geological features and dramatic geologic processes, a wide diversity of rare habitats located in close proximity given the dramatic changes in topography, and technological advances in the

areas of astronomy, chaparral ecosystems, and watersheds.

The close proximity of the San Gabriel Mountains to urban areas of the Los Angeles region means that this area has excellent potential for interpretation, education, and continued scientific study.

## Puente-Chino Hills

The Puente-Chino Hills have resources that are outstanding representations of habitat types not widely found in other national park units or comparably managed sites. Represented within these themes are coastal sage scrub habitat and California walnut woodlands, both of which support rare and endangered plants and wildlife. Although coastal sage scrub is protected at several national park units, no other existing national park unit or comparably managed area protects a significant amount of the rare California walnut woodlands. Protected status for the Puente-Chino Hills within the study area would expand and enhance existing resource protection and ensure long term conservation of the larger Puente-Chino Hills corridor.

Located in close proximity to urban populations of the Los Angeles basin, universities and colleges, the Puente-Chino Hills provide excellent opportunities for interpretation, education, and scientific study.

## 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 National Park Service at a reasonable cost. In evaluating feasibility, the NPS 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 NPS to undertake new management responsibilities in light of current and projected availability of funding and personnel.

The NPS finds that a collaborative partnership-based park unit is feasible, as one that respects the complex mix of land use, ownership, and regulatory authority in the study area. Opportunities for collaborative management with local, state and federal managers to protect natural and cultural resources, provide recreation, public access, interpretation and educational opportunities, and other compatible uses in an NPS 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, based on the complexity of existing land use and ownership patterns.

## Need for NPS Management

The need for direct NPS management is the final criterion for a favorable recommendation for a proposed unit of the National Park System. The criterion requires a finding that NPS management would be superior to other potential alternative management arrangements by other entities.

The NPS finds that a collaborative-based 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.



Photos (top to bottom): 1. West Fork Trail, Angeles National Forest. NPS photo. 2. Devil's Punchbowl. San Gabriel Mountains. 2006. NPS photo.

## Alternatives

Four management alternatives are evaluated in this special resource study. One alternative is the “no action” alternative which serves as a baseline of existing conditions. Alternatives A, C, and D, the action alternatives, emphasize cooperative management of existing public lands and federal designation of a national recreation area. Alternative B, San Gabriel Parks and Open Space Network, was dismissed from further consideration after public review of the preliminary alternatives in 2009 (Newsletter 4). Some components of alternative B were incorporated into alternative D.

The three action alternatives do not propose large federal land acquisitions as the majority of the land is already owned and managed by the U.S. Forest Service and other public recreation and conservation agencies. Each action alternative seeks to enhance the capabilities of existing agencies by leveraging resources, sharing information, and through cooperative planning and administration.

Through the scoping process, numerous stakeholders including public agencies, citizens, organizations, and elected officials, identified specific issues and concerns that should be considered in the study process. Based on this input, issue statements were developed by the study team to describe the context for this study. The alternatives explore various approaches to addressing the issues identified:

- Additional *funding* is needed to meet resource protection and recreation objectives.
- There are sufficient *barriers to outdoor recreation* for some communities including lack of close-to-home recreational opportunities, poor access to recreational areas, and personal safety concerns.
- The Los Angeles region continues to experience tremendous population growth causing *increasing demands on existing recreation areas*.
- Greater protection is needed for the region's *rare and threatened ecological communities*.
- The study area's *cultural resources* would benefit from further documentation, protection, and/or interpretation.
- The *study area lacks a clear sense of identity* that could help connect communities to the natural and cultural resources of the San Gabriel Mountains and the Puente-Chino Hills.
- The region's natural, cultural, and recreational resources *lack a comprehensive management plan* and could benefit from a regional planning structure.
- There is an ongoing need to protect and restore riparian ecosystems and provide appropriate recreational use of waterways while *improving water quality, enhancing efficiency of water storage and use, and providing flood protection*.



Santa Fe Dam Recreation Area. 2004. NPS photo.



## **Items Common to All Action Alternatives**

### **A PARTNERSHIP APPROACH**

The National Park Service recognizes that many other public agencies, private conservation organizations, and individuals successfully manage important natural and cultural resources and recreational opportunities within the study area. The NPS applauds these accomplishments and actively encourages the expansion of conservation activities by state, local, and private entities and by other federal agencies. The alternatives presented retain existing management and build on existing efforts by suggesting new partnerships, funding sources, and technical assistance opportunities.

### **U.S. FOREST SERVICE MANAGEMENT**

U.S. Forest Service management and ownership of existing Angeles National Forest lands would be maintained in all of the alternatives. U.S. Forest Service policies would continue to be applied to management of these lands.

### **NATIONAL RECREATION AREA (NRA)**

Each of the three action alternatives proposes a national recreation area designation to increase the capacity to protect significant resources and to provide improved recreational opportunities for the region. Two of the national recreation area alternatives would include the establishment of a national park unit to be managed in partnership with existing agencies. The other would be a U.S. Forest Service national recreation area applied to existing Angeles National Forest lands. The NPS would have no role in that alternative (alternative A).

### **RETENTION OF LOCAL LAND USE AND EXISTING REGULATORY AUTHORITIES**

The designation of a NPS national recreation area 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.

All of the alternatives 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. No alternative presented would change existing water rights, water supply operations, water treatment operations, flood protection efforts, or other agency functions necessary to maintaining public infrastructure essential for public health and safety.

All the proposed alternatives would retain existing and future water rights. Management of water supply and treatment plants would continue under current authorities. The NRA designation would not entail any new or future beneficial uses or requirements for water supply, water quality, or air quality regulations.

This study recommends that any resulting legislation ensure that existing sanitation facilities and operations such as landfills and water treatment plants would continue to be operated and regulated by existing agencies and would not be affected by the NRA designation.

### **PRIVATE PROPERTY RIGHTS**

Any legislation proposed to implement this study should specify that eminent domain would not be used for land acquisition within the NRA. 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 NRA partnership could work together to take a pro-active approach to coordinated resource management to reduce catastrophic fires.

## **No Action Alternative: Continuation of Current Management**

### **CONCEPT**

The no action alternative is required by the National Environmental Policy Act (NEPA) to provide a baseline with which to compare action alternatives. Under this alternative, the NPS would have no role in the study area beyond the existing national park units (segments of two national historic trails), and existing financial and technical assistance programs such as the Land and Water Conservation Fund grant program, the Rivers, Trails and Conservation Assistance Program, the National Historic Landmark program, and the Route 66 corridor program. This alternative assumes that current programs and policies of existing federal, state, county, and non-profit conservation organizations would continue at existing levels and current conditions and trends would continue.

### **MANAGEMENT**

Existing cooperative management efforts between agencies would continue. Current efforts to protect wildlife corridors and provide new recreational opportunities would continue to occur on a case-by-case basis as existing funding allows.

Public land management agencies would continue their land management, visitor services, public education, and interpretation programs at approximately the current levels of activity and funding, according to current plans.

Cities and unincorporated areas would continue to conserve open space and provide recreational opportunities where possible. Local agencies would continue to provide services as funding allows. Coordination and communication between local governments would continue to occur on a case-by-case basis.

Non-profit conservation activities would continue at current levels.

### **EDUCATION AND INTERPRETATION**

Existing national forest lands, national historic landmarks, museums, visitor centers, parks, and other sites owned by state and local agencies and nonprofit organizations would continue to be interpreted as they are today. Existing national park units would continue to provide interpretation and education opportunities. Improvements in interpretive programs and media may occur as funding becomes available. Coordinated efforts to interpret the significant resources of the San Gabriel Watershed and Mountains would not occur.

Education and interpretation efforts would continue to occur on a project-by-project basis.

### **RECREATIONAL OPPORTUNITIES AND ACCESS**

New recreational opportunities and access would occur through existing agencies, organizations, and governments as funding permits.

### **RESOURCE PROTECTION (ECOLOGICAL COMMUNITIES AND CULTURAL RESOURCES)**

Protection of natural and cultural resources under the management of existing agencies would continue. Government grant programs, California state land conservancies, local governments, and non-profit land conservancies/trusts throughout the study area would continue to conserve and restore native ecosystems and habitat. It is assumed that these efforts would continue at current levels. Existing planning efforts to link habitat connections such as the South Coast Missing Linkages Project would continue. Implementation would be the responsibility of existing agencies and landowners.

### **OPERATIONS AND MAINTENANCE**

Operations and maintenance of existing parks and open space would be assumed to remain at current levels. For some agencies, more resources are available for the acquisition of lands than are available for operations and management.



Whittier Narrows Recreation Area. NPS photo.

## **Alternative A: San Gabriel Mountains National Recreation Area: A U.S. Forest Service Designation**

### **CONCEPT**

Congress would designate the San Gabriel Mountains unit of the Angeles National Forest (ANF) as a U.S. Forest Service National Recreation Area (NRA) that would continue to be managed solely by the U.S. Forest Service. The designation would bring additional recognition, tools, and resources to the ANF in order to steward watershed resources and ecosystems, and improve recreational opportunities.

Legislation establishing the NRA would reaffirm the primary importance of the ANF in preserving watershed and natural resources and emphasize future management practices that are compatible with resource protection. Authorizing legislation would also recognize the importance of the NRA for its recreational value and establish mechanisms to increase funding for facilities, maintenance, ecological restoration, visitor management, educational programming, and stewardship activities.

No unit of the national park system would be established.

### **PROPOSED AREA**

The NRA would encompass the existing Angeles National Forest lands associated with the San Gabriel Mountains.

### **MANAGEMENT**

The U.S. Forest Service would continue to manage the NRA according to existing management policies. The legislation establishing the NRA would provide the ANF with new authorities that would allow the U.S. Forest Service to partner with organizations to provide additional resources for recreation, resource protection, maintenance, and safety.

### **NPS Role**

No unit of the national park system would be established. Existing units of the NPS would continue current management. The Santa Monica Mountains National Recreation Area would continue to partner with the U.S. Forest Service, as it currently does, on an informal basis. The NPS would continue to provide technical and financial assistance to local communities through existing programs.



Antelope Valley. 2007. NPS Photo.



## **Existing Agencies and Authorities**

The designation would only apply to lands currently owned and managed by the U.S. Forest Service. Private lands and inholdings would continue to be regulated by local land use authorities.

## **EDUCATION AND INTERPRETATION**

The Angeles National Forest would be recognized for its nationally significant resources associated with the San Gabriel Mountains. New partnership efforts and additional funding for education and interpretation staff would allow for interpretive media and programs within the ANF.

The NRA could explore new opportunities for education and research associated with the San Dimas Experimental Forest.

## **RECREATIONAL OPPORTUNITIES AND ACCESS**

Existing recreational opportunities would remain on the Angeles National Forest. New partnership opportunities may assist the Angeles National Forest in fundraising for improved recreational experiences and planning for recreational connections. Enhanced recreational experiences would include improved visitor management in heavily used recreational areas as a result of more forest rangers, better facilities, improved trail connections and trailheads, and new educational and interpretive efforts.

## **RESOURCE PROTECTION (ECOLOGICAL COMMUNITIES AND CULTURAL RESOURCES)**

The U.S. Forest Service would continue balancing use and resource protection in accordance with its multiple-use policy. The authorizing legislation would direct that any proposed new uses would need to be compatible with protecting watershed and significant resources.

The NRA would bring additional recognition, tools, and resources to the ANF in order to steward significant resources associated with the San Gabriel Mountains. Legislation would authorize the U.S. Forest Service to enter into cooperative management agreements with other agencies to protect habitat and ecosystems that cross jurisdictional boundaries. Ecological restoration would be emphasized.

New resources would be allocated to document, protect, and interpret cultural resources in the San Gabriel Mountains.

## **OPERATIONS AND MAINTENANCE**

Authorizing legislation would direct additional

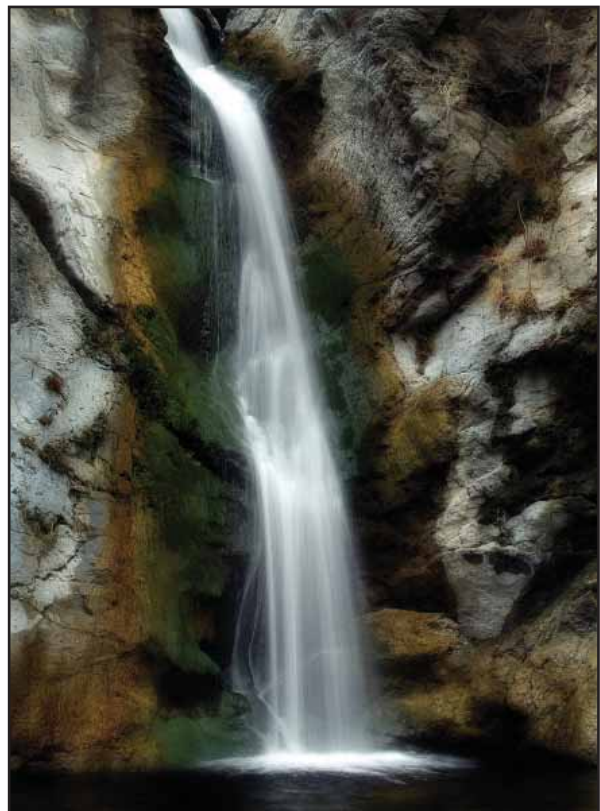
funding for operations and maintenance of the NRA allowing the ANF to provide more rangers and other staff in heavily used visitor areas. New volunteer programs would be developed to assist in the maintenance of facilities, preservation/restoration efforts, and interpretation of significant resources.

The NRA would also have dedicated staff to coordinate new partnerships and volunteer efforts.

## **FUNDING AND COSTS**

In order to accomplish the goals of the NRA, substantial additional funding would be required, either through appropriations, partnerships, or philanthropy.

Legislation could allow the forest to receive direct donations and provide a mechanism for establishing a nonprofit fundraising or “friends of the forest” group. The elevated visibility and attention of a new designation, coupled with an increased sense of identity for the area’s significant resources, would enhance the ability of the ANF to raise private funds and seek special appropriations for particular projects.



Eaton Falls. Photo by Eric Lowenbach.

## **Alternative C: San Gabriel Watershed National Recreation Area**

### **CONCEPT**

Alternative C proposes a river-based national recreation area (NRA) that would serve to raise the visibility of the San Gabriel River watershed, offer new educational and interpretive opportunities throughout the watershed, and improve existing river-based recreation.

The NRA would be established by an act of Congress, which would provide the U.S. Forest Service, the NPS, and other land management agencies and organizations with guidance and direction to collaborate in protecting significant resources, providing new recreational opportunities, and improving visitor use of existing recreation areas.

Very little land would need to be acquired for direct management by the National Park Service. Instead, partnership arrangements among federal and state agencies, local governments, non-profit organizations, and area landowners would achieve the conservation, recreational, and educational goals of the NRA.

### **PROPOSED AREA**

The NRA would encompass the upper San Gabriel River Watershed within the Angeles National Forest and a half-mile corridor around the San Gabriel and Rio Hondo Rivers, south to Santa Fe Springs. This is the same corridor width used for the San Gabriel River Master Plan. The NRA would include approximately 178,000 acres of land; 89% of this area is already protected by existing agencies and organizations.

### **MANAGEMENT**

#### **NRA Partnership**

The NRA would be managed by a voluntary partnership that would include agencies and organizations with land and interests in the area.

In existing public land areas, inter-agency agreements could augment agency staffing to manage highly used areas such as the San Gabriel Canyon, providing higher levels of visitor services, education, and safety.

The NRA would partner with existing environmental education centers, school districts, visitor centers, and youth organizations to provide ranger programs and opportunities to engage children and residents of all ages in learning about environmental stewardship and the natural and

cultural significance of the San Gabriel River Watershed.

### **NPS Role**

The primary role of the NPS would be: 1) coordinating the formal partnership that would manage activities within the NRA, and 2) providing interpretation and education. The NPS would also take the lead in coordinating a voluntary information network throughout the San Gabriel Watershed to provide interpretive and educational messages about significant resources.

Through cooperative management agreements, the NPS could provide assistance to partner agencies with visitor management and protection, interpretation and education. The NPS would also have a lead role in coordinating interpretive and educational messages about significant resources.

### **Existing Agencies and Authorities**

The designation of the NRA would not apply additional regulatory or land use authorities over existing agencies or local governments. Each partner and jurisdiction would retain land ownership, management, and decision-making authorities for lands that they own. NPS land management policies and regulations would only apply to lands that the NPS acquires. Privately-held lands would continue to be regulated by local land use authorities.

### **EDUCATION AND INTERPRETATION**

The NRA would partner with existing environmental education centers, school districts, visitor centers, and youth organizations to provide ranger programs and opportunities to engage children and residents of all ages in learning about environmental stewardship and the natural and cultural significance of the San Gabriel River Watershed.

The NRA partnership would provide interpretive programs at existing recreation areas, schools, interpretive centers, and historical sites/areas within the NRA. The NRA partnership would also coordinate a voluntary, shared information network in which sites within the San Gabriel Watershed would deliver coordinated interpretive messages about the watershed.

### **RECREATIONAL OPPORTUNITIES AND ACCESS**

Recreational uses and activities would be determined by the existing land management agency. The NRA partners would work together to improve and enhance the quality of existing

recreational experiences through facility improvement, additional staff (rangers and interpreters), monitoring efforts, and cooperative planning.

Within the NRA, the partnership would work to foster new recreational opportunities that are compatible with maintaining watershed values, water supply, flood protection, and habitat values. The NRA partnership would explore opportunities for improved transportation and trail connections to destinations within the NRA.

### **RESOURCE PROTECTION**

The NRA partnership would seek additional funding for resource protection and would facilitate opportunities to work collaboratively to conserve and enhance resources along the San Gabriel River and its upper watershed through research, cooperative management, and ecological restoration. New resources would be allocated to document, protect, and interpret cultural resources within the NRA.

### **OPERATIONS AND MAINTENANCE**

Existing agencies would continue to be responsible for the operation and maintenance of their lands and facilities. Through cooperative management agreements, the NRA agency partners would be able to share staff, facilities, and funding to assist in the operations and maintenance of heavily used visitor areas. 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.

The NPS would require funding for staff including administration, interpreters, planners, law enforcement, outreach coordinator, education specialists, and resource management specialists. Job training programs could be incorporated into staffing and volunteer programs. Given NPS budget constraints, it is likely that the NRA would initially have a small staff that would increase over time as funding is available. A general management plan would identify park priorities, management emphases, and required staffing for a 15-20 year timeframe.

The NPS would share office space with partner agencies or lease office space in or near the NRA for operations and administration. The NPS could also seek use of existing buildings for visitor serving facilities. Specific operational and visitor facility needs would be identified through a general management plan.

### **Land Acquisition**

The majority of land within the NRA is owned and managed by public agencies. Lands within the NRA would remain under their current ownership and jurisdictions, with each land management agency continuing to fund its own operations. The need for land acquisition by the NPS would be small, targeted for protection of significant resources, and subject to available funding. Partner agencies would also contribute funds for land acquisition within the NRA.

### **COSTS AND FUNDING**

The NPS would receive federal funding for its administrative, educational, technical assistance, and interpretive roles. Based on the size of the area, and the types of services and assistance offered, the NPS budget for the NRA might fall between \$1 to \$3 million. The NRA designation may also enhance funding or fundraising opportunities for the U.S. Forest Service.

The NRA partnership would be a coordinating body for existing grant programs, and could work together to leverage funds from a variety of sources (e.g. state bonds, Land & Water Conservation Fund) to increase funding for projects in the NRA.



Bigcone Douglas fir. Photo courtesy of BonTerra Consulting.



## **Alternative D: San Gabriel Region National Recreation Area (A Partnership Linking Significant Resources and Recreation)**

### **CONCEPT**

Alternative D represents a combination of ideas from the preliminary alternatives that were presented to the public in fall 2009. Alternative D proposes a larger scale national recreation area (NRA) that would recognize and protect the significant resources associated with the San Gabriel Mountains and Puente Hills, explore opportunities to protect and enhance interconnected ecosystems, provide important open space connections for recreation, and offer new educational and interpretive opportunities. Ecological restoration would be emphasized.

The management approach of alternative D would be the same as alternative C. The NPS, U.S. Forest Service, and numerous other agencies and organizations with land and interests in the area would work collaboratively to protect significant resources and improve recreational opportunities. Very little land would be need to be acquired for direct management by the NPS.

Unlike the other alternatives, in Alternative D the NPS and the partnership would offer technical assistance to willing surrounding communities for conservation planning to extend open space connections and form a network of parks, habitats, and open spaces.

### **PROPOSED AREA**

Alternative D proposes the largest NRA of the three action alternatives, providing more opportunities for resource protection, inter-agency coordination, and recreation. The NRA would include the San Gabriel Mountains, portions of the San Gabriel and Rio Hondo Rivers, and a portion of the western Puente Hills.

Within the San Gabriel Mountains, the NRA would include the Angeles National Forest (ANF) adjacent foothill areas with ecological resource values, and areas near the San Andreas Fault. Areas with ecological resource values include designated critical habitat for federally listed threatened or endangered species, and/or areas within one of the Los Angeles County proposed significant ecological areas. Below the ANF, the NRA would include a half-mile corridor around the San Gabriel and Rio Hondo rivers corridors, south to Santa Fe Springs. Portions of the western Puente Hills with ecological resource value and recreational potential (areas

west of Harbor Boulevard) would also be included. This primarily includes lands owned and managed by the Puente Hills Landfill Native Habitat Authority and lands proposed by Los Angeles County to be included in the Puente Hills Significant Ecological Area.

### **MANAGEMENT**

#### **NRA Partnership**

The management structure of alternative D would primarily be the same as alternative C, but with some broader functions. The NPS and the partnership would offer conservation planning assistance to interested communities to extend open space connections and form a network of parks, habitats, and open spaces.

In the more urban areas associated with the river corridors, the NRA partnership would work with interested surrounding communities to increase the amount and variety of public open space, parks and recreational lands, particularly in under-served areas, and to enhance public transportation access between urban populations and the public lands of the NRA.

In rural areas such as Soledad Basin, Antelope Valley, or Mt. Baldy, where future growth pressures may threaten open space and the rural quality of life, the NRA would work with communities to preserve additional open space and improve recreational trail connections and staging areas.

In existing public land areas, interagency agreements could augment agency staffing to manage highly used areas such as the San Gabriel Canyon, providing higher levels of visitor services, education, and safety.

#### **NPS Role**

The NPS role in alternative D would primarily be same as alternative C, but with the addition of a technical assistance program to provide conservation and recreation planning to interested public agencies, private landowners, and organizations beyond the NRA boundaries to create and connect parks, conserve habitat, and provide new recreational experiences.

#### **Existing Agencies and Authorities**

The designation of the San Gabriel Region NRA would not apply additional regulatory or land use authorities over existing agencies or local governments. Each partner and jurisdiction would retain landownership, management, and decision-making authorities for lands that they own.

NPS land management policies and regulations would only apply to lands that the NPS acquires. Private lands would continue to be regulated by local land use authorities.

### **EDUCATION AND INTERPRETATION**

Educational and interpretive programming would primarily be the same as alternative C, except that with a larger NRA in alternative D, a wider array of interpretive topics and themes, as well as on-site interpretive and educational programming, would occur throughout the San Gabriel Mountains, along the San Gabriel River, and in the Puente-Chino Hills.

### **RECREATIONAL OPPORTUNITIES AND ACCESS EDUCATION AND INTERPRETATION**

Within the NRA, a variety of recreational opportunities would be available to the public. Allowable recreational uses and activities would continue to be determined by the existing land management agency. In alternative D, the NRA partnership 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 partnership would explore opportunities to restore vacant or unused land to provide new recreational opportunities.

### **RESOURCE PROTECTION**

The NRA partnership would facilitate opportunities to work in collaboration with partner agencies to conserve and enhance significant resources associated with the San Gabriel Mountains, watershed, and the Puente Hills through research, cooperative management, and ecological restoration.

The NRA partnership would seek to leverage additional funding for wildlife and habitat management and offer conservation technical assistance when requested. Coordinated cultural resource management would be the same as in alternative C, but would cover a broader area.

### **OPERATIONS AND MAINTENANCE**

Existing agencies would continue to be responsible for the operation and maintenance of their lands and facilities. Through cooperative management agreements, the NRA agency partners would be able to share staff, facilities, and funding to assist in the operations and maintenance of heavily used visitor areas. 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.

Required NPS staff for the NRA would be similar to alternative C. However, with a larger land area and a broader set of programs, alternative D would be expected to require slightly higher staffing levels. Job training programs could be incorporated into staffing and volunteer programs.

The NPS would share office space with partner agencies or lease office space in or near the NRA for operations and administration. The NPS could also seek use of existing buildings for visitor serving facilities. Specific operational and visitor facility needs would be identified through a general management plan.

### **Land Acquisition**

The majority of land in the proposed NRA is owned and managed by public agencies. Lands within the NRA would remain under their current ownership and jurisdictions, with each land management agency continuing to fund its own operations. The need for NPS land acquisition would be small, targeted for protection of significant resources, and subject to funding availability. Partner agencies would also contribute funds for land acquisition within the NRA when funding is available.

### **COSTS AND FUNDING**

Costs and funding needs for alternative D would be similar to alternative C. However, a larger NRA would require more from the NPS in terms of its administrative, educational, and interpretive assistance to the partnership. The NPS budget for the NRA could be between \$2 and \$4 million based on analysis of comparable park units.

## Environmental Assessment

### Background

Before taking an action, the National Environmental Policy Act (NEPA) requires federal agencies to identify a range of alternatives for that action and to analyze the potential environmental impacts of that action, including any potential adverse environmental effects that cannot be avoided if the proposed action is implemented. The NPS prepared the environmental assessment (EA) for the *Draft San Gabriel Watershed and Mountains Special Resource Study* to identify and analyze the potential environmental and socioeconomic consequences of each of the alternatives considered in the study.

### Impacts

Consequences are determined by comparing likely future conditions under each alternative with the existing baseline conditions as described in the “no action” alternative. The analysis includes consideration of the context, intensity, and duration, of direct and indirect effects of all the alternatives. The NPS based analysis and conclusions on a review of existing literature, information provided by experts within the NPS, as well as outside organizations, analysis of case studies of existing programs in other locations, and the professional judgment of the study team members.

The impact analysis for this study is necessarily broad to avoid speculation as to site-specific types of impacts given the broad nature of the study. The outcome of the study will be a recommendation to Congress. If Congress takes action, then new environmental analysis would be undertaken prior to specific implementation actions. This new analysis would propose specific actions, whose site or area specific impacts would be assessed prior to implementation of the plan.

The NPS finds that there would be no significant impacts associated with the proposed alternatives. The summary table which follows provides a summary of environmental consequences by specific impact topics.

## Environmentally Preferred Alternative

The NPS is required to identify an “environmentally preferred alternative” in an EA. The environmentally preferred alternative is determined by applying criteria set forth in the National Environmental Policy Act, as guided by direction from the Council on Environmental Quality.

The environmentally preferable alternative should not be viewed as the National Park Service’s preferred alternative. The Director of the National Park Service is required under law and policy to identify which alternative or combination of alternatives would be most effective and efficient in protecting significant resources and providing for visitor enjoyment. The Director will make this finding after the publication of the draft special resource study / environmental assessment, considering public and stakeholder comment. This finding will be included in the study package forwarded to the Secretary of the Interior.

The environmentally preferred alternative is the alternative that:

- Fulfills the responsibilities of each generation as trustee of the environment for succeeding generations.
- Ensures for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings.
- Attains the widest range of beneficial uses of the environment without degradation, risk of health



San Gabriel Mountain dudleya. Photo courtesy of Gabi McLean.



or safety, or other undesirable and unintended consequences.

- Preserves important historic, cultural and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice.
- Achieves a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities
- Enhances the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

Based on the aforementioned criteria, the NPS has determined alternative D to be the environmentally preferable alternative. Alternative D best meets the NEPA criteria because it would protect natural and cultural resources over a larger area, provide greater opportunities relating to recreation and visitation, and foster a larger framework for cooperative management (as compared to alternatives A and C).

## Goals Analysis

The following summary describes impacts as they relate to the goals established for the alternatives and the specific impact topics required by law and policy. The goals were developed by the study team based on the public input received. They represent values that appeared to be shared by the majority of the respondents in the various public input opportunities throughout the study process.

### ADDRESS CURRENT AND FUTURE RECREATION AND OPEN SPACE NEEDS

All three action alternatives (A,C, and D) seek to address recreation and open space needs within the study area. Alternative A would primarily improve the quality of recreation within the San Gabriel Mountains portion of the ANF. However, it would do little to address the needs of nearby urban communities that are currently deficient in parks and open space. Without addressing this need, increasing demands on the ANF to provide local recreational opportunities could diminish the visitor experience over time.

Alternative C would provide more recreation and open space opportunities for communities along the San Gabriel River and improve the recreational experience in the highly used San Gabriel River Canyon. Alternative D would provide the greatest ability to address current and future recreation and open space needs. A larger area is included in the NRA and technical assistance programs would allow the NRA to assist local communities in making connections to NRA resources and in developing more close-to-home recreation. Alternative D would also provide more resources for regional open space conservation.

### PROTECT OR RESTORE SIGNIFICANT NATURAL RESOURCES AND IMPORTANT HABITATS

Alternative A would provide improved protection of nationally significant resources within the San Gabriel Mountains. Significant native habitat would be improved by greater restoration efforts and improved planning and partnerships with other agencies to protect wildlife corridors. Alternative C would do the least in terms of protecting and restoring significant natural resources and important habitats as it contains the smallest amount of nationally significant resources and native habitat found within the study area. Restoration and protection would occur in the San Gabriel River upper watershed and along the river corridor to Santa Fe Springs. However, significant resources located in other areas of the San Gabriel Mountains and Puente Hills would not benefit.

Alternative D provides the greatest opportunity to protect and restore natural resources and important habitats on a regional scale. The proposed NRA would contain most of the nationally significant regions identified in the resource analysis. Additionally, the NRA partnership would work regionally to protect and restore wildlife corridors and habitat. Studies have shown that protection of wildlife corridors enhances ecological diversity and provides protection from threats from nonnative species, altered fire regimes, and the effects of climate change.

### PRESERVE HISTORIC AND CULTURAL RESOURCES

Most of the nationally significant cultural resources in the study area are located in the San Gabriel Mountains. As such, alternatives A and D provide the most potential for protecting significant cultural resources within the study area. Alternative C would allow for greater preservation of cultural resources associated with the San Gabriel River, including historic mining sites, the site of the original San Gabriel Mission, and the Pio Pico State Historical Park. However, alternative C would preserve cultural resources to a lesser degree than alternatives A and D due to its narrower geographical focus.

**MAINTAIN OR IMPROVE WATER QUALITY,  
WATER CONSERVATION AND FLOOD  
PROTECTION**

All of the alternatives would respect existing management and structures necessary for flood protection and water conservation. However, each of the action alternatives would have the potential to improve water quality. Alternative D would provide the most opportunities to improve water quality through improved visitor education, visitor management, and restoration opportunities throughout the San Gabriel Mountains and along the San Gabriel River.

Alternative A would provide regional benefits to water quality and conservation. The early conservation of the San Gabriel Mountains was intended for watershed protection and this would be reaffirmed in both Alternatives A and D. Protection of watershed resources and additional restoration throughout the mountains would improve water quality both in the mountains and downstream. Alternative C would have benefits to the San Gabriel River watershed, through enhanced visitor management and education and restoration opportunities within the NRA. However, it would do nothing to improve the water quality of other watersheds located within the study area, such as the Los Angeles River, the Santa Clara River, and rivers that drain into the Antelope Valley.



Day use activities, Angeles National Forest. NPS photo.

**SUMMARY OF ENVIRONMENTAL CONSEQUENCES BY IMPACT TOPICS**

Impact Topics	No Action	Alternative A
<p><b>Biological Resources - Native Plants</b></p>	<p>Trends that currently have an adverse impact on native plants, such as invasive species, altered fire regimes, and habitat loss, would continue to have minor to moderate adverse effects on native plant communities.</p>	<p>Protection and awareness of native plants through enhanced interpretation and educational efforts due to the new designation would have beneficial effects on native plant communities.</p> <p>There would be opportunities for increased staff and funding dedicated to the control of nonnative species.</p> <p>The USFS would have additional authorities to work with other land management agencies to protect important wildlife connections to the forest. Protection of habitat corridors enhances species diversity and resilience to threats such as altered fire regimes, invasive species, and climate change.</p>
<p><b>Biological Resources - Wildlife</b></p>	<p>Many of the study area native habitat types are severely reduced from their former range.</p> <p>Threats such as habitat loss and fragmentation as a result of development, air pollution, water pollution, and altered fire regimes would continue to have moderate adverse effects on the viability of many species and communities including those that are threatened or endangered.</p>	<p>In alternative A, the proposed designation would bring more resources to the USFS for habitat restoration, conservation, research, and planning for wildlife corridors.</p> <p>Designation would ensure that proposed new or future uses on the national forest would be compatible with the protection of significant resources and watershed values. This would have an overall beneficial effect on protecting wildlife resources within the ANF.</p>
<p><b>Cultural Resources</b></p>	<p>Trends that adversely impact cultural resources including, archeological and historical resources within the study area would continue.</p> <p>Within the ANF, cultural resources would continue to be threatened by erosion, fire, flood, vandalism, looting, and land use practices. Additional threats to cultural resources throughout the study area include flooding, water erosion, off-road vehicle use, unauthorized collecting of artifacts, and industrial activities such as mining.</p> <p>Such threats would continue to have minor to moderate adverse effects on cultural resources.</p>	<p>In alternative A, more resources would be available to the USFS for documentation, education, and interpretation of cultural resources within the ANF. The ANF may also be better able to form new partnerships for the protection of cultural resources.</p> <p>Beyond the ANF, existing threats to cultural resources would continue to have minor to moderate adverse effects on cultural resources as a result of natural deterioration of some historic resources due to lack of maintenance and preservation measures and loss of some sites over time.</p> <p>No dedicated federal funds would be available to document and interpret cultural resources in a comprehensive manner outside of the ANF.</p>



**SUMMARY OF ENVIRONMENTAL CONSEQUENCES BY IMPACT TOPICS**

Alternative C	Alternative D
<p>Alternative C would provide beneficial effects on native plant protection and education along the San Gabriel River and in the highly visited upper watershed. This would occur through coordinated interpretive efforts, new resources for conservation, and new agency partnerships focused on conservation and restoration of native plant communities.</p> <p>Information centers located throughout the study area could also provide an opportunity for greater awareness with regard to native plant protection.</p> <p>As in alternative A, a component of native plant protection would be to focus on the control of nonnative species.</p>	<p>Alternative D would have the greatest benefit for native plant habitat as it recognizes and promotes protection of habitat in the San Gabriel Mountains, Puente Hills, and along the San Gabriel River corridor. The NPS would provide technical assistance on a voluntary basis to conserve wildlife corridors and native habitats.</p> <p>The larger NRA would also provide coordinated interpretive efforts, new resources for conservation, and new agency partnerships focused on conservation of native plant communities.</p>
<p>In Alternative C, the proposed designation would bring more resources to both the ANF and the San Gabriel River corridor for wildlife protection. Additionally, partnering entities would work to leverage greater funding for conservation along the San Gabriel River.</p> <p>Designation would ensure that proposed new or future uses on the national forest would be compatible with the protection of significant resources and watershed values. This would have an overall beneficial effect on protecting wildlife resources within the ANF.</p> <p>The potential for increased water and land-based recreation opportunities could result in a minor adverse effect on wildlife and wildlife habitat. This would be mitigated through visitor education programs, monitoring, and restoration efforts.</p>	<p>Designation would ensure that proposed new or future uses on the national forest would be compatible with the protection of significant resources and watershed values. This would have an overall beneficial effect on protecting wildlife resources within the ANF.</p> <p>Through partnerships, new funding, and technical assistance programs, alternative D would provide the greatest opportunity to protect habitat and connect wildlife corridors important for significant resources.</p> <p>The potential for increased recreation opportunities, in areas where previous use has been light or nonexistent, could result in a minor adverse effect on wildlife and wildlife habitat. This would be mitigated through visitor education programs, monitoring, and restoration efforts.</p>
<p>In alternative C, NPS technical assistance for cultural resource protection would reinforce best management practices for protecting structures, landscapes, archeological resources, and ethnographic resources.</p> <p>Coordinated protection of cultural resources would be enhanced through NRA partnership agreements.</p> <p>Coordinated interpretation and education would have beneficial effects on the protection and understanding of cultural resources.</p> <p>An increase in coordinated land conservation efforts would also likely enhance the protection of cultural and ethnographic resources on lands that are as yet undisturbed.</p>	<p>Alternative D would be fundamentally the same as alternative C, but it would expand the protective boundaries and cover more sites and cultural themes since the area includes the entire San Gabriel Mountains portion of the ANF, the Puente Hills, and the San Gabriel River corridor.</p> <p>Alternative D would provide the most comprehensive and coordinated effort to protect cultural resources throughout the study area through:</p> <ul style="list-style-type: none"> <li>• More NPS technical assistance</li> <li>• More research and documentation of broader areas</li> <li>• More comprehensive interpretation and education of broad cultural themes throughout the NRA.</li> <li>• Expanded partnerships, coordination and consultation with stakeholder groups, including Native Americans.</li> </ul>

**SUMMARY OF ENVIRONMENTAL CONSEQUENCES BY IMPACT TOPICS**

Impact Topics	No Action	Alternative A
<p><b>Recreation Use and Visitor and Experience</b></p>	<p>Higher demands would be placed on existing recreation areas with current trends in population growth.</p> <p>Inequities in recreation opportunities would likely continue.</p> <p>Recreational opportunities would occur only through existing agencies and local governments as funding permits. Lack of resources and personnel for recreation management would continue.</p> <p>Coordinated interpretation for significant resources would not occur.</p> <p>Interpretation and educational programs in the ANF would continue to be greatly limited by current funding and staffing, having a moderate adverse impact on visitor experience.</p>	<p>In alternative A, more USFS staff would be available within the new NRA to manage visitors.</p> <p>Additional funding for improved recreational facilities and more interpretive and educational programming would have a beneficial effect on the visitor experience within the ANF.</p> <p>Alternative A would do little to ameliorate the lack of recreational opportunities available to urban areas that are currently deficient in parks and open space.</p>
<p><b>Socioeconomics</b></p>	<p>Current trends in property values, economic activity, income, population, employment, recreation use and distribution, tourism, community relationships (as affected by local federal land use) would continue.</p> <p>Areas identified as experiencing recreational high use would continue to be congested and noisy, with negative impacts on visitor experience and infrastructure.</p>	<p>The NRA designation and improved recreational opportunities would cause small increases in visitation over time.</p> <p>Increased visitation would have modest beneficial effects on surrounding local communities which would provide services to such visitors.</p> <p>Increased investment in the ANF to provide more staffing for visitor services, planning, and restoration could result in additional jobs for the region.</p>
<p><b>Socioeconomics -Socially and Economically Disadvantaged Populations</b></p>	<p>The existing lack of open space, lack of effective transportation, lack of culturally advantageous facilities or opportunities, and lack of knowledge about recreation and natural resources would continue to have moderate adverse impact on socially and economically disadvantaged populations.</p>	<p>Alternative A would have a generally beneficial impact on socially and economically disadvantaged populations. However, it would likely represent only a minor improvement for communities that are currently underserved for opportunities to access natural resources and open space.</p>

**SUMMARY OF ENVIRONMENTAL CONSEQUENCES BY IMPACT TOPICS**

Alternative C	Alternative D
<p>There would be more targeted planning efforts and leveraged funds to create recreational opportunities along the San Gabriel River. More trail connections and new transit options designed to connect communities to the NRA would improve access to recreational areas and open space.</p> <p>Through cooperative agreements, agencies would share staff to assist in visitor management. The NPS would also be able to provide staff assistance and visitor management technical assistance throughout the NRA.</p> <p>The voluntary information network would provide more opportunities to provide interpretive and educational programs about the resources of the San Gabriel River Watershed.</p> <p>Alternative C could also provide public health benefits to those communities near the San Gabriel River corridor.</p>	<p>Alternative D would have the greatest beneficial effect on recreational opportunities and visitor experience. More trail connections and new transit options would improve access to recreational areas and open space.</p> <p>The NPS would provide technical assistance to improve open space and recreation planning in surrounding communities.</p> <p>Through cooperative agreements, agencies would share staff to assist in visitor management. The NPS would also be able to provide staff assistance for visitor management throughout the NRA.</p> <p>The larger NRA and voluntary information network would allow for coordinated interpretive and educational opportunities throughout the study area providing the greatest beneficial effects on the visitor experience.</p> <p>Alternative D would have a greater beneficial effect on public health for communities throughout the region, through providing the most new opportunities for outdoor recreation.</p>
<p>Small increases in visitation to NRA destinations could have modest beneficial effects on surrounding local communities which would provide services to such visitors.</p> <p>The new designation would result in additional jobs to support the NRA. Job training would be incorporated into staffing and volunteer programs. Such effects would be negligible in the regional context.</p>	<p>Small increases in visitation over time could have modest beneficial economic effects on surrounding local communities which would provide services to such visitors.</p> <p>With a larger designation, and a greater emphasis on education and job training, alternative D may provide slightly more benefits than the other alternatives in terms of creating jobs. Such effects would be negligible in the regional context.</p>
<p>Alternative C would have a greater beneficial impact on socially and economically disadvantaged populations, with efforts applied specifically in urban areas close to the San Gabriel River.</p> <p>Alternative C provides job training and opportunities within these communities which has the potential both to improve access for recreation, but also to build programs to provide training and job opportunities.</p> <p>The development of effective and diverse partnerships would also serve to build programs and cooperative agreements with organizations that represent disadvantaged populations.</p>	<p>With regional technical assistance programs, job training, and improved transportation connections to recreation and open space, alternative D presents the most resources and assistance for providing such communities with better access to recreational opportunities.</p> <p>As in C, alternative D provides job training and career opportunities for local communities.</p> <p>As in alternative C, the development of effective and diverse partnerships would also serve to build programs and cooperative agreements with organizations that represent disadvantaged populations.</p>



**SUMMARY OF ENVIRONMENTAL CONSEQUENCES BY IMPACT TOPICS**

Impact Topics	No Action	Alternative A
<p><b>Land Use</b></p>	<p>Existing efforts to protect and conserve lands would continue at current levels. Regional growth and development, and lack of regional or coordinated planning efforts would continue to challenge local agencies and organizations in their efforts conserve open space.</p> <p>Traffic and congestion would continue to be affected primarily by regional growth and development. However, localized congestion at heavily used recreation sites would continue to have moderate adverse impacts on traffic patterns in these areas.</p>	<p>Improved recreation opportunities and land conservation within the ANF would have an overall beneficial effect on urban life and the built environment for surrounding communities.</p> <p>Alternative A would have very little effect on traffic patterns throughout the study area. However, with increases in visitation, alternative A could add a negligible adverse impact to local traffic patterns associated with popular recreation areas.</p> <p>Alternative A actions would apply only to national forest lands. There would be no impact on land use managed by existing agencies and local jurisdictions.</p>
<p><b>Water Resources</b></p>	<p>Water quality would vary greatly from location to location throughout the study area, depending primarily on the level of development and land uses.</p> <p>Limited funding for restoration, planning, and public education to address water quality impacts would result in continuing minor to moderate adverse impacts on water resources.</p> <p>The water quality of rivers and creeks in certain areas would continue to be a public health and safety concern.</p>	<p>Additional emphasis on restoration and the protection of watershed resources would have a beneficial effect on water resources in the ANF.</p> <p>Additional resources for visitor education and more rangers on-site in heavily used recreation areas could reduce pollution caused by recreational use thus having a beneficial effect on water resources in the ANF.</p> <p>Improved water quality would have an indirect beneficial effect on public health and safety.</p>

**SUMMARY OF ENVIRONMENTAL CONSEQUENCES BY IMPACT TOPICS**

Alternative C	Alternative D
<p>Alternative C would have a beneficial impact on the availability of open space along the San Gabriel River corridor, having a beneficial effect on urban quality and the built environment in these areas.</p> <p>When placed in the context of current transportation patterns, which are primarily affected by regional land use, growth and development, alternative C would have very little effect. Transportation improvements to destinations within the NRA, if implemented, could alleviate traffic congestion in high use recreation areas. Such effects would be negligible in the regional context.</p> <p>NPS management policies would apply only to NPS-owned lands. There would be no impact on land use managed by existing agencies and local jurisdictions.</p>	<p>By emphasizing and protecting interconnected ecosystems within and among urban zones, providing more recreational opportunities, and protecting open spaces, alternative D would have the greatest beneficial effect on open space availability, urban quality, and the built environment.</p> <p>With a broader emphasis on connecting people to recreation, providing more close-to-home recreation opportunities for urban communities, and improving transportation to major recreational destinations, alternative D could have beneficial effects on reducing traffic congestion in high use recreation areas. Such effects would be negligible in the regional context.</p> <p>NPS management policies would apply only to NPS-owned lands. There would be no impact on land use managed by existing agencies and local jurisdictions.</p>
<p>Over time, restoration opportunities funded by the NRA partnership would have a beneficial effect on San Gabriel River water quality.</p> <p>Alternative C would provide additional resources for visitor education, and more rangers on-site in heavily used recreation areas along the main corridors of the San Gabriel River. Additional resources for visitor education and more rangers on-site in heavily used recreation areas could reduce pollution caused by recreational use thus having a beneficial effect on water resources where current impairments are a result of recreational use.</p> <p>The increased emphasis on river-based recreation, and potentially on other recreation uses throughout the expanded NRA, holds the potential for additional impacts on water resources. However, this would be mitigated through more visitor education programs and more on-site staff to manage visitation.</p> <p>Improved water quality would have an indirect beneficial effect on public health and safety.</p>	<p>Alternative D would provide more restoration opportunities throughout the San Gabriel Mountains, along the San Gabriel River, and Puente Hills. Over time, these efforts would have greater beneficial effects on water resources than in alternative C.</p> <p>Alternative D would have similar beneficial effects to alternative C for water quality on rivers and creeks that are primarily impacted by recreational use.</p> <p>Additionally, the NRA would provide regional technical assistance for improved recreational planning and restoration opportunities, providing the opportunity to focus on broader watershed restoration efforts.</p> <p>The increased emphasis on river-based recreation, and new recreational opportunities throughout the expanded NRA, holds the potential for additional impacts on water resources. However, this would be mitigated through more visitor education programs and more on-site staff to manage visitation.</p> <p>Improved water quality would have an indirect beneficial effect on public health and safety.</p>

## Next Steps

After the distribution of the *Draft San Gabriel Watershed and Mountains Special Resource Study* there will be a minimum 90-day review period. The NPS study team will then revise the report if needed, and transmit it to the Secretary of the Interior. The Secretary will transmit the report to Congress, along with the Secretary's recommendation for the area.



The San Gabriel Mountains with the Los Angeles urban area in the foreground. Photo © David Liu.