Apache-Sitgreaves National Forests
Draft Wilderness Evaluation Report

Hot Air/Salt House Potential Wilderness

PW-03-01-049

June 2009

This draft potential wilderness evaluation report is divided into four parts: background, capability, availability, and need. Capability and availability are intended to be objective evaluations of existing conditions in the Hot Air/Salt House Potential Wilderness.

The most important area of focus for public comment is the “need” evaluation. The intent of this part of the evaluation is to consider if the potential wilderness fits into the National Wilderness Preservation System at the regional level. This report offers data that helps us understand different sources that might generate need. Ultimately, however, need for wilderness is generated by public demand. Therefore, public input is an essential component of this part of the potential wilderness evaluation.

We would like your feedback on this draft report - if we have missed an important detail or if you would like to share your comments or other input, please contact us. Written comments can be sent to: Apache-Sitgreaves National Forests, Attention: Forest Plan Revision Team, P.O. Box 640, Springerville, Arizona 85938, or E-mail: asnf.planning@fs.fed.us. We are also available by phone; ask for a planning team member at 928-333-4301 or 928-333-6292 (TTY).

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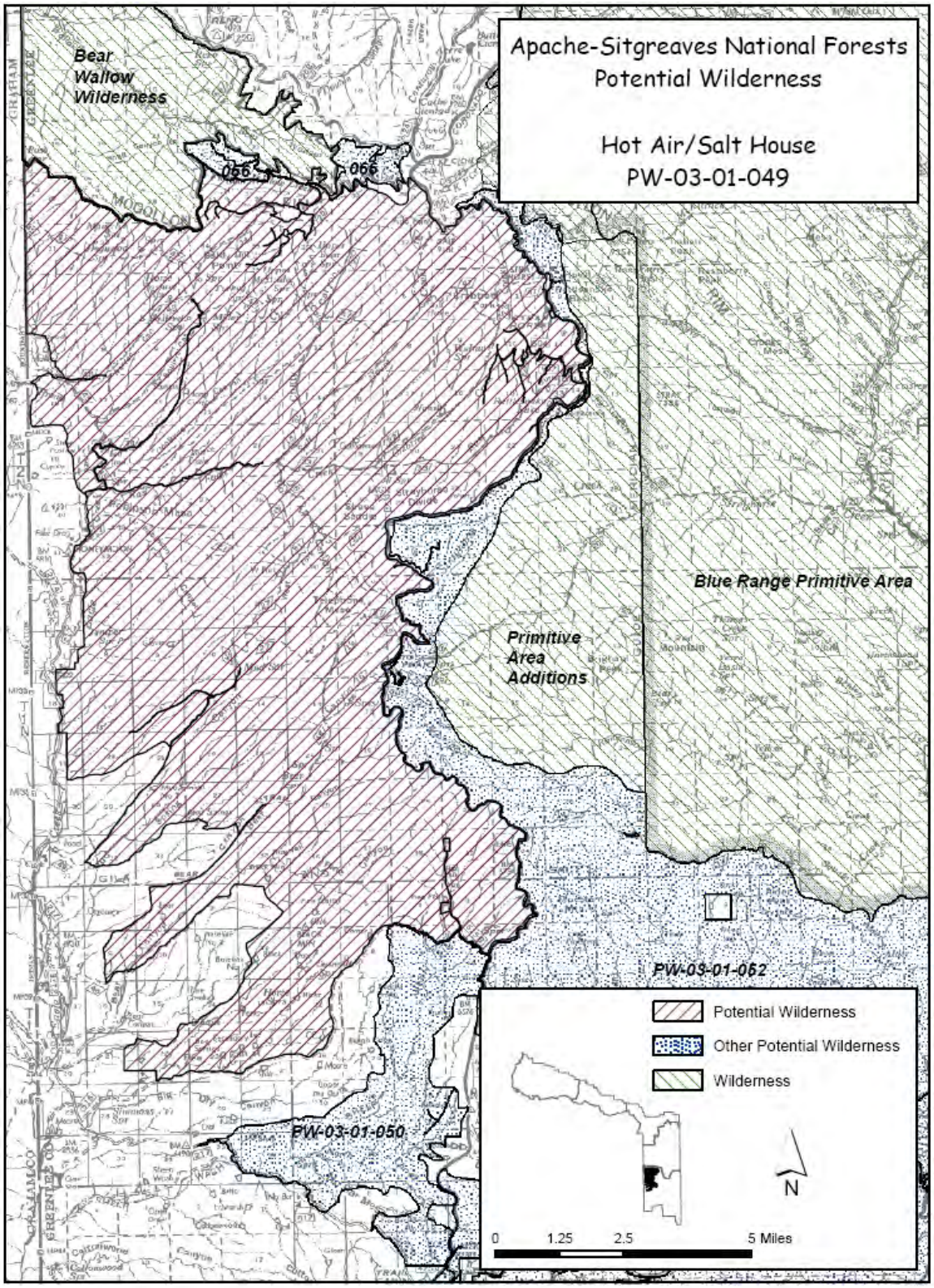

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Map created June 2009 by etreiman.

Introduction

As part of the Forest Plan Revision process for the Apache-Sitgreaves National Forests (ASNFs), the Forest Service has prepared this Wilderness Evaluation Report for the Hot Air/Salt House potential wilderness.

Purpose
The Forest Service must evaluate all lands possessing wilderness characteristics for potential wilderness during plan revision (39 CFR 219.17). Completion of a potential wilderness inventory and evaluation is an essential step in the plan revision process. Wilderness is just one of many special area designations that the Forest Service considers during plan revision, but it is one of only three special area evaluations that are mandatory. If an area is recommended for wilderness designation, then the revised plan would contain desired conditions, objectives, and/or guidelines that would protect its wilderness characteristics.

The Process
The wilderness evaluation began with an inventory of potential wilderness, which includes areas of federal land over 5,000 contiguous acres and other areas that meet the criteria in FSH 1909.12 Ch. 71, and then determined if those areas meet the definition of wilderness. Once a list of potential wilderness areas was created, each area was evaluated for capability, availability, and need. These evaluation factors are described in the introduction to each evaluation step and in Appendix A. This report summarizes the wilderness capability, availability, and need evaluations based on the best available information.

The ASNFs will use this report to determine whether or not to make a preliminary administrative recommendation for wilderness designation for the Hot Air/Salt House potential wilderness. The Responsible Official's (Forest Supervisor) recommendation will be documented in the final Plan and the Plan Approval Document. Public comments on this report will be accepted and considered throughout the plan revision process. If a potential wilderness is recommended for wilderness, the recommendation will receive further review by the Chief of the Forest Service and the Secretary of Agriculture. If the Chief of the Forest Service intends to move forward with a wilderness recommendation, the Forest Service will complete a detailed analysis of the trade-offs and impacts in accordance with the National Environmental Policy Act, including further public review and comment. Ultimately, only Congress has the authority to designate wilderness.

Background

Name	Hot Air/Salt House
Number	PW-03-01-049
Acres	76,111
Ranger District	Clifton/Alpine
History (if applicable)	The potential wilderness includes RARE II analysis areas 03141 Hot Air (31,700 acres) and 03140 Salt House (22,270 acres). The Hot Air Inventoried Roadless Area (IRA) (2001 Roadless Rule) has 31,702 acres and the Salt House IRA has 21,848 acres.
Location, Vicinity, and Access	Approximately 30 miles north-northeast of Clifton, Arizona in Greenlee County. It is located in the ASNFs in eastern Arizona. Primary access is via U.S. Highway 191, Greenlee County road 67018, and Forest Road (FR) 515.
Geography and Topography	The area is characterized by very rugged, steep, broken country. The northern boundary is the Mogollon Rim and the terrain slopes down to East Eagle Creek. A number of canyons dissect the area; there is little flat topography. Elevations range from around 9,000 feet on the Mogollon Rim to approximately 5,200 feet along the East Eagle Creek on the western border. Major landmarks include the Mogollon Rim, Baldy Bill Point, Black Mountain, Robinson Mesa, Telephone Mesa, and Hot Air, and Robinson, Bear, Hog Trail, Salt House, Chitty, McBride, and Squirrel Canyons.
Surroundings	U.S. Highway 191, the Coronado Trail Scenic Byway, delineates the east boundary. Forest Road 515 forms the southern boundary. The western boundary follows minor forest roads, intensively-used areas, private lands, and the forest boundary with the San Carlos Indian Reservation. Bear Wallow Wilderness and roads associated with FR 45 define the north boundary. There are several parcels of private land adjacent to the western boundary and two private land parcels along the southeast boundary. The Blue Range Primitive Area is between 1 and 5 miles east of this potential wilderness. The U.S. Highway 191 corridor separates this area from the Blue Range Wilderness Area Proposal to the east. The FR 515 corridor separates this potential wilderness from Sheep Wash potential wilderness to the south.
Vegetation	A mosaic of vegetative communities is found within Hot Air/Salt House potential wilderness. Vegetation types vary with elevation, aspect, and slope and include mixed conifer forest, Madrean pine-oak woodland, interior chaparral, ponderosa pine forest, semi-desert grassland, mixed broadleaf deciduous riparian forest, montane willow riparian forest, and a small amount of spruce-fir forest at the north end. There are some old spruce, fir, and mixed conifer. Sensitive plants include Blumer's dock and *Wislizeni* gentian. Mullein, a Class C noxious weed, is found along the boundary roads. Some bull thistle, also a Class C noxious weed, has been found along a short section of U.S Highway 191 in the vicinity of Blue Vista Overlook. Vegetation is a Wild and Scenic River (WSR) Outstandingly Remarkable Value (ORV) for Eagle Creek because of the quality of the riparian vegetation.

Appearance and Key Attractions

The potential wilderness is dominated by steep slopes, rugged canyons, and the Mogollon Rim. Vegetation varies considerably with elevation and aspect. Key attractions are wildlife for hunting and viewing.

Special Designations

The Eagle Creek eligible WSR is partially located within the potential wilderness. The East Eagle Creek eligible WSR is located within the area. The Eagle National Recreation Trail traverses the potential wilderness from southwest to north. The Coronado Trail Scenic Byway borders the area on the east.

CURRENT USES

Recreation

Current recreation activities are primarily hiking, hunting, horseback riding, and viewing scenery and wildlife. There are no developed recreation sites within the area, but a variety of sites can be found adjacent to the potential wilderness. These include 15 trailheads, a campground, 5 picnic areas, and 2 overlooks. All or portions of 26 trails (102.4 miles) provide non-motorized access into and through the potential wilderness. Most of the area has a recreation emphasis of Semi-Primitive Non-Motorized, with the remainder Semi-Primitive Motorized, Roaded Natural, and Rural.

Wildlife

Large wildlife species found in the area include elk, mule deer, black bear, javelina, and mountain lion. A variety of small animals and birds also inhabit the area. Northern goshawk (sensitive) post-fledging family areas and Mexican spotted owl (threatened) protected activity centers are found on lands within and adjoining the potential wilderness. Endangered Gila chub are found in Eagle and East Eagle Creeks. Threatened loach minnow and spikedace are also found in Eagle Creek. Eagle Creek has been designated as critical habitat for spikedace. Other threatened wildlife species include Chiricahua leopard frog. Candidate wildlife species include Mexican gartersnake. Other sensitive fish and wildlife species include roundtail chub, longfin dace, desert sucker, bald eagle, common black-hawk, Springerville silky pocket mouse, narrow-headed gartersnake, Arizona toad, northern leopard frog, lowland leopard frog, spotted bat, zone-tailed hawk, and Arizona Bell’s vireo. There is potential habitat for the endangered Southwest willow flycatcher and the candidate western yellow-billed cuckoo.

Fish species and habitat in Eagle and East Eagle Creeks are WSR ORVs because of the diversity of species and the high quality habitat for those species. Wildlife species and habitat in and around Eagle Creek are WSR ORVs because of the species diversity and the high quality habitat.

Range

The primary use of the potential wilderness is grazing. The potential wilderness includes parts of the East Eagle, Strayhorse, Mud Springs, Hog Trail, AD Bar, Baseline-Horsesprings, and Double Circle Allotments. There are 116.5 miles of fence, of which 2.9 are forest boundary, and 19.6 miles of pipeline in the area.

Water

The Wild, Scenic, and Recreational sections of the eligible East Eagle Creek are within the potential wilderness. Two small stretches of Eagle Creek (eligible as Recreational) are also within the area. Other perennial streams include portions of Chitty and Squirrel Canyons and Salt House Creek. The remaining drainages are intermittent or ephemeral. Of the 45 springs in the area, 30 have been developed. There are also four stock tanks and three trick tanks/guzzlers in the potential wilderness.

Minerals

There are approximately 3 millsite and 44 placer claims in the potential wilderness or adjacent to the southwest boundary. There are no mineral districts, mineral withdrawals, or coal, oil and gas, or geothermal leases in the potential wilderness.

Heritage Resources

There is considerable evidence of cultural resources. Site density is believed to be low, but existing sites are probably significant. There are also historic resources related to early logging in the area.

Fire

Three hundred eighty-nine fires (most < ¼ acre and the largest approximately 2,500 acres) occurred between 1967 and 2006. The majority, including the largest, were caused by lightning. Campfires, smoking, and arson were also causes.

Capability Evaluation

Wilderness capability describes the basic characteristics that make the area appropriate and valuable for wilderness designation, regardless of the area's availability or need. Five sets of factors are used to determine capability: naturalness, level of development, opportunities for solitude or primitive and unconfined recreation, special features, and the ability of the Forest Service to manage the area as wilderness. The first four factors consider how the current conditions of the potential wilderness fit the definition of wilderness. Manageability is slightly different because it evaluates features of the area that would make it more or less difficult to manage as wilderness, such as size, shape, and juxtaposition to external influences. The following summarizes the information found in Appendix B.

Summary

Natural

High

The potential wilderness is essentially natural and the diversities of vegetation and wildlife species are key features. Vegetation includes mixed conifer, ponderosa pine, mixed broadleaf deciduous riparian, montane willow riparian, and spruce-fir forests; Madrean pine-oak woodland; interior chaparral; and semi-desert grassland. The potential wilderness provides habitat for a wide variety of special status animal and plant species including Blumer's dock, *Wislizeni* gentian, northern goshawk, Mexican spotted owl, Gila chub, loach minnow, spikedace, Chiricahua leopard frog, Mexican gartersnake, roundtail chub, longfin dace, desert sucker, bald eagle, common black-hawk, Springerville silky pocket mouse, narrow-headed gartersnake, Arizona toad, northern leopard frog, lowland leopard frog, spotted bat, zone-tailed hawk, and Arizona Bell's vireo. Free-flowing, perennial streams include Eagle, East Eagle, and Salt House Creeks and portions of Warren, Robinson, Chitty, and Squirrel Canyons. There are no known impoundments or water quality concerns. East Eagle Creek is an eligible WSR with proposed classifications of Wild, Scenic, and Recreational. Eagle Creek is an eligible WSR with a proposed classification of Recreational. Mullein is found along area roads, but there are no records of the plant within the potential wilderness. Bull thistle has also been found along a short section of U.S. Highway 191. The night sky is not affected by ranch lights along Eagle Creek.

Undeveloped

Medium

There is some evidence of human activity within the area, including trails, old cabins, stock tanks, fences, pipelines, developed springs, and trick tanks/guzzlers.

Outstanding Opportunities for Solitude or Primitive and Unconfined Recreation

High

The potential wilderness has outstanding opportunities for primitive and unconfined recreation because of the area's size and rugged terrain. Recreation opportunities include horseback riding, backpacking, hiking, hunting, viewing wildlife, and photography. There are opportunities for solitude, but the signs of civilization are noticeable in conjunction with the private lands along the west boundary and the highway along the east boundary.

Special Features and Values

High

Special features and values include outstanding panoramic views, high potential for ecological and cultural research, and habitat for endangered, threatened, sensitive, and unique or rare plant and animal species (see list above in **Natural**).

Manageability

Medium

The potential wilderness could be managed to protect its wilderness character. The area is somewhat isolated, but there are adequate access opportunities. There may be some conflicts between motorized and non-motorized recreation opportunities. There are two roads (FR 8369 and FR 587) that are bounded on both sides by the potential wilderness. There are also two motorized trails which are adjacent to or bounded by the potential wilderness.

OVERALL CAPABILITY

High

Availability Evaluation

Availability criteria indicate the availability of a potential wilderness for wilderness designation by describing other resource and land use potentials for the area. Availability examines the potential impact of designating an area as wilderness to both the current and future land uses and activities. In essence, it is a summary of the trade-offs between wilderness and other uses. The following summarizes the information found in Appendix C.

Summary

Water Yield

High

The area is of value for water yield. However, no impoundments are needed.

Habitat Management

Low to Medium

Elk and mule deer habitat enhancement over the next 10 years will require use of power tools and/or equipment for thinning and prescribed fire.

Aquatic Restoration

Medium

A long-term management plan for Chitty Creek is under preparation; management activities may include the use of motorized tools.

Vegetation Restoration

Low to Medium

Over the next 10 years prescribed burning will be needed to reduce biomass accumulations from recent wildfires. Salvage logging and thinning may also be needed.

Public Access Needed

High

There are no unique characteristics that would require developed public access.

Land Use Authorizations

Low

Current permitted grazing use and the ability to use motorized equipment and tools within the area to maintain range developments is critical to the operation and effectiveness of grazing management.

Adjacent Non-FS Lands

Medium

There are private lands and the San Carlos Apache Indian Reservation adjacent to the west boundary. There are also private lands adjacent to the southeast boundary. The remainder of the area has no inholdings or adjacent private lands.

Minerals

Low to Medium - southwest corner
High - remainder of area

The southwest portion of the area has a moderate to high potential for future mineral uses. The remainder has a low potential for future mineral uses.

OVERALL AVAILABILITY

Low to Medium

Need Evaluation

The evaluation criteria below indicate how the potential wilderness might fit into the National Wilderness Preservation System, which includes all wilderness areas in the United States. Need is considered at the regional level and must incorporate public participation. The criteria used to evaluate need include consideration of other wilderness and non-wilderness areas that provide opportunities for unconfined outdoor recreation or preservation of certain ecosystem characteristics. The following summarizes the information found in Appendix D.

Summary

Factor 1 - The location, size, and type of other wildernesses in the general vicinity and their distance from the proposed area. Consider accessibility of areas to population centers and user groups. Public demand for wilderness may increase with proximity to growing population centers.

Low

There are adequate wilderness opportunities in the vicinity of Hot Air/Salt House potential wilderness. Within 100 miles of this potential wilderness there are 1,788,844 wilderness and primitive area[1] acres. Within 100 miles of Silver City, New Mexico, the closest population center, there are 472,888 potential wilderness acres on the ASNFs and 1,204,467 wilderness and primitive area acres. Within 130 miles of Tucson, there are 354,490 potential wilderness acres on the ASNFs and 1,487,287 Wilderness and primitive area acres.

Factor 2 - Present visitor pressure on other wildernesses, the trends in use, changing patterns of use, population expansion factors, and trends and changes in transportation.

Medium

According to the 2001 National Visitor Use Monitoring study, approximately 38,000 people visited the three Wilderness areas on the ASNFs. Most of this use was concentrated in the two smaller, more easily accessed Wildernesses, Mount Baldy and Escudilla. Visitor use in Mount Baldy is locally considered high, while visitor use in Escudilla is considered moderate to high. Use in Bear Wallow Wilderness is lighter because it is less easily accessed and slightly larger. Wilderness users on the ASNFs are predominantly male, white or Hispanic/Latino, between the ages of 31 and 60, and live in the Phoenix and Tucson areas.

Approximately 70 percent of the Arizona visitors to the ASNFs are from the Phoenix (58 percent) and Tucson (11 percent) metropolitan areas. Populations in these areas have increased much faster than in the more rural areas. Visitors from the four counties where the ASNFs are located account for another 20 percent. In general, there has been no to moderate population growth in these counties. Recently, there have been major highway improvements between Phoenix and the ASNFs.

It can be assumed that with increasing populations and improved transportation features, wilderness use on the ASNFs would continue to increase, especially in those areas where the trailheads are easily accessed.

[1] The Blue Range Primitive Area is the last remaining such area in the United States. It is managed as wilderness in accordance with Forest Service Manual 2320.3(11).

Surrounding National Forests (Coconino, Coronado, Gila, and Tonto) all have much higher numbers of wilderness visits than the ASNFs. Use on the Coconino, Coronado, and Gila is high, while use on the ASNFs and Tonto is moderate.[2]

Regionally, increased demand for additional wilderness in both Arizona and New Mexico should be anticipated based on population growth that occurred from 1990 to 2000, which far exceeded the national growth rate. Assuming Arizona continues to grow at a rate much higher the national rate, visits to wilderness will continue to increase. Arizona, in particular, could benefit from additional wilderness.

Public demand increases with proximity to six population centers: Flagstaff, Phoenix, Tucson, Santa Fe, Taos, and Albuquerque. Consider wilderness recommendations within 100-150 miles of those cities to provide for that demand. Some additional public demand for wilderness in the Southwestern Region will occur from people moving to rural communities near the National Forests.

Nationwide, Wilderness represents 17 percent of all federal agency acres. In the Southwestern Region 13 percent of the Forest Service lands are Wilderness. Only 6 percent of the federal acres in northeast Arizona are wilderness acres. For wilderness acres in the Southwestern Region to be at the national average would require the addition of about 1 million acres.

Factor 3 - The extent to which nonwilderness lands on the NFS unit or other Federal lands are likely to provide opportunities for unconfined outdoor recreation experiences.

Low

There are adequate nonwilderness lands on or near the ASNFs that could provide unconfined outdoor recreation experiences. Within 100 miles of the Silver City, New Mexico, the closest population center, there are over 1.5 million acres of primitive area, IRAs, and Bureau of Land Management Wilderness Study Areas (WSA). Additionally, there are over 900,000 acres managed for semi-primitive and primitive recreation on the ASNFs. Many of these acres overlap with Wilderness, the Blue Range Primitive Area, IRAs, and potential wilderness.

Within 130 miles of Tucson, there are over 1 million acres of primitive area, IRAs, and WSAs. Additionally, there are over 383,000 acres managed for semi-primitive and primitive recreation on the ASNFs. Many of these acres overlap with Wilderness, the Blue Range Primitive Area, IRAs, and potential wilderness.

Factor 4 - The need to provide a refuge for those species that have demonstrated an inability to survive in less than primitive surroundings or the need for a protected area for other unique scientific values or phenomena.

Low

The ASNFs have identified 11 Threatened and Endangered species, 105 Species of Concern[3], and 208 Species of Interest[4] that occur or are found on the forests. None of these species require a primitive wilderness environment to survive. However, some (Mexican gray wolf, for example) would benefit from reduced disturbance and human encounters.

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[2] This is based on use categories developed by the Forest Service Wilderness Advisory Group, with low use defined as 0-10,000 visits, medium as 10,001 – 30,000 visits, and high being greater than 30,000 visits. Total wilderness use for a forest from NVUM was divided by the number of wildernesses the forest is lead for, to get an average amount of use per wilderness.

[3] Species of Concern are species for which management actions may be necessary to prevent listing under the Endangered Species Act.

[4] Species of Interest are species for which management actions may be necessary to achieve ecological or other multiple-use objectives.

Factor 5 - Within social and biological limits, management may increase the capacity of established wildernesses to support human use without unacceptable depreciation of the wilderness resource.

Low

There is little opportunity for management to increase the capacity of the established wildernesses on the ASNFs. Both Mount Baldy and Escudilla Wildernesses are heavily used, are less than 10,000 acres, are easily accessed by motor vehicles, and have limited trail systems. Encounters with other wilderness visitors in both areas are high. No management changes have been identified for Bear Wallow Wilderness because the use is much lighter.

Factor 6 - An area's ability to provide for preservation of identifiable landform types and ecosystems. Consideration of this factor may include utilization of Edwin A. Hammond's subdivision of landform types and the Bailey-Kuchler ecosystem classification. This approach is helpful from the standpoint of rounding out the National Wilderness Preservation System and may be further subdivided to suit local, subregional, and regional needs.

Medium

This potential wilderness contains one underrepresented ecosystem, 5,743 acres of semi-desert grassland.

OVERALL NEED

Low to Medium, contains one underrepresented ecosystem

Appendix A: Wilderness Evaluation Process

The following is summarized from Forest Service Handbook 1909.12, Chapter 70. This process is used by the Forest Service to determine whether there are areas that could be recommended for wilderness designation by Congress. The process includes three steps: an inventory of potential wilderness areas, an evaluation of the potential wilderness areas, and a determination if a recommendation will be pursued for any potential wilderness areas.

Inventory of Potential Wilderness Areas

The first step in the evaluation of potential wilderness is to identify and inventory all areas within National Forest System Lands that satisfy the definition of wilderness found in the 1964 Wilderness Act.

Areas identified through this process are called potential wilderness areas. This inventory of potential wilderness is not a land designation. It is completed with the express purpose of identifying all lands that meet the criteria for being evaluated for wilderness suitability and possible recommendation to Congress for wilderness designation.

The inventory of areas relies on local knowledge and judgment regarding unique, site-specific conditions of each area being considered. The boundaries of areas for the potential wilderness inventory should facilitate easy on-the-ground identification.

Inventory Criteria

Areas qualify for inclusion in the potential wilderness inventory if they meet the statutory definition of wilderness and meet either criteria 1 and 3 or criteria 2 and 3 below.

1. Areas contain 5,000 acres or more.
2. Areas contain less that 5,000 acres, but meet one or more of the following criteria:
   a. Can be preserved due to physical terrain and natural conditions.
   b. Self-contained ecosystems, such as an island, that can be effectively managed as a separate unit of the National Wilderness Preservation System.
   c. Contiguous to existing wilderness, primitive areas, Administration-endorsed wilderness, or potential wilderness in other Federal ownership, regardless of their size.
3. Areas do not contain forest roads (36 CFR 212.1) or other permanently authorized roads, except as permitted in areas east of the 100th meridian (sec. 71.12).

Areas may be included in the potential wilderness inventory even though they include the types of areas or features listed in FSH 1909.12, 71.11.

On the ASNFs, GIS was used to identify those areas that met the inventory criteria. Site-specific information was gathered from Ranger District (District) personnel to provide background information, identify features not shown in GIS, and determine where the Region 3 criteria on roaded areas, fingers, and extrusions should be applied.

Evaluation of Potential Wilderness Areas

An area recommended for wilderness must meet the tests of capability, availability, and need. In addition to the inherent wilderness quality it possesses, an area must provide opportunities and experiences that are dependent upon or enhanced by a wilderness environment. The ability of the Forest Service to manage the area as wilderness is also considered.

Capability

The capability of a potential wilderness is the degree to which an area contains the basic characteristics that make it suitable for wilderness recommendation without regard to its availability for or need as wilderness. The following characteristics are considered in evaluating a potential wilderness area:

1. Natural - an area is substantially free from the effects of modern civilization and generally appears to have been affected primarily by the forces of nature.
2. Undeveloped - the degree to which an area is without permanent improvements or human habitation.
3. Outstanding Opportunities for Solitude or Primitive and Unconfined Recreation - the capability of the area to provide solitude or primitive and unconfined types of recreation. This includes a wide range of experiential opportunities. Solitude is the opportunity to experience isolation from sights, sounds, and the presence of others from developments and evidence of humans.
4. Special Features and Values - an area is capable of providing other values such as those with ecologic, geologic, scientific, educational, scenic, historical, or cultural significance.
5. Manageability - the ability to manage an area as wilderness as required by the Wilderness and how boundaries affect manageability of an area.

Responses to the capability questions were drafted at the ASNFs Supervisors Office and reviewed by District personnel. Any changes were incorporated into the capability evaluation.

If an area is found to not be capable of being wilderness (a rating of Low), it is not carried forward into the Availability Evaluation.

Availability

Areas determined to meet wilderness capability requirements are considered potentially available for wilderness designation. The determination of availability is conditioned by the value of and need for the wilderness resource compared to the value of and need for other resources. Other resource potential including current use and potential future use is analyzed for the various resources involved.

Constraints and encumbrances on lands may also govern the availability of lands for wilderness. The degree of Forest Service control over the surface and subsurface of the area is also considered. The Forest Service should have sufficient control to prevent development of incompatible uses that would negatively affect wilderness character and potential.

Responses to the availability questions were drafted by at the ASNFs Supervisors Office and reviewed by District personnel. Any changes were incorporated into the availability evaluation.

Need

The need for an area to be designated as wilderness is determined through an analysis on a regional basis by evaluating such factors as the geographic distribution of areas and representation of landforms and ecosystems to which it contributes to the overall National Wilderness Preservation System. This need is demonstrated through a public involvement process, including public input to the evaluation report.

A set of GIS models, information papers, and analyses were provided by the Region 3 Regional Office. This information was synthesized at the ASNFs Supervisors Offices and reviewed by District personnel. Any changes were incorporated into the need evaluation.

Appendix B: Capability Evaluation and Ratings

Capability Characteristics

Natural

1. Presence of non-native species.
High - Non-native species are not evident.
Medium - Non-native species are evident in isolated spots.
Low - Non-native species are common or scattered throughout the area.

Rating: **High** - Mullein is found along the roads near the area, but there are no GIS records of the plant within the potential wilderness. Bull thistle has also been found along a short section of U.S. Highway 191.

2. Rivers within the potential wilderness are in free-flowing condition.
High - Rivers within the area are considered free-flowing.
Medium - Some rivers have impoundments or other issues that affect their free-flowing character.
Low - Rivers within the potential wilderness are seasonal or heavily impacted by impoundments.

Rating: **High** - Perennial streams include Eagle, East Eagle, and Salt House Creeks and portions of Warren, Robinson, Chitty, and Squirrel Canyons. The remaining drainages are either intermittent or ephemeral. There are no known structures on any of the drainages. East Eagle Creek is an eligible WSR with proposed classifications of Wild, Scenic, and Recreational. Eagle Creek is an eligible WSR with a proposed classification of Recreational.

3. Quality of night-sky as affected by light pollution.
High - The night sky is clear with little to no interference from light pollution.
Medium - Some stars are visible and there is moderate degradation from light pollution.
Low - Few stars are visible at night and the presence of light pollution is evident.

Rating: **High** - There are no nearby population centers and the lights from ranches along Eagle Creek do not affect the night sky.

4. Presence of pollutants that degrade water.
High - All rivers/streams have been sampled and there are no water quality issues.
Medium - There are no known water quality issues within the area but the not all rivers/streams have been sampled.
Low - There are rivers within the area that are listed on the State Impaired Waters List (303d).

Rating: **Medium** - Only Eagle Creek has been sampled. No water quality concerns were found. The remaining streams have not been sampled; there are no known water quality issues.

5. Area provides elements of biological diversity and naturalness, including unique habitats, TES or rare plants and wildlife.

High - Has critical or unique habitats and diverse ecological conditions.
Medium - Has a mix of habitats and ecological conditions.
Low - Has limited ecological conditions and habitats.

Rating: **High** - Biological diversity is high and essentially natural. The potential wilderness provides habitat for a wide variety of special status animal and plant species including Blumer's dock, *Wislizeni* gentian, northern goshawk, Mexican spotted owl, Gila chub, loach minnow, spikedace, Chiricahua leopard frog, Mexican gartersnake, roundtail chub, longfin dace, desert sucker, bald eagle, common black-hawk, Springerville silky pocket mouse, narrow-headed gartersnake, Arizona toad, northern leopard frog, lowland leopard frog, spotted bat, zone-tailed hawk, and Arizona Bell's vireo. Vegetation, Wildlife species, and Fish species and habitat are ORVs for the eligible WSRs adjacent to and within this potential wilderness.

6. Area contains a variety of natural resources, including a variety of tree species and structures, intermingled grasslands or meadows, numerous recreation opportunities, diversity of wildlife habitats, and wildlife, etc.

High - Diverse amount of natural resources.
Medium - Mixed amount of natural resources.
Low - Limited amount of natural resource diversity.

Rating: **High** - Diversity of natural vegetation and wildlife species are key natural features. Vegetation includes mixed conifer forest, Madrean pine-oak woodland, interior chaparral, ponderosa pine forest, semi-desert grassland, mixed broadleaf deciduous riparian forest, montane willow riparian forest, and a small amount of spruce-fir forest at the north end. The potential wilderness also contains some areas of old spruce, fir, and mixed conifer. Hiking, hunting, wildlife viewing, and photography are the main recreation opportunities. Wildlife species and habitat are diverse because the varied topographic, soil, and vegetative conditions within the area combine with perennial streams to provide habitat for numerous wildlife species.

Undeveloped

7. Area has current or past evidence of human activity.

High - Little or no evidence of human activity.
Medium - Unnoticeable or unobjectionable human activity.
Low - Obvious evidence of human activity.

Rating: **Medium** - There is some evidence of human activity within the area, including trails, old cabins, stock tanks, fences, pipe lines, developed springs, stock tanks, and trick tanks/guzzlers.

Outstanding Opportunities for Solitude or Primitive and Unconfined Recreation

8. Area provides physically and mentally challenging recreation opportunities that promote adventure and self-reliance.

High - Most of the area provides challenging recreation opportunities.
Medium - Some parts of the area have the potential for challenging recreation opportunities.
Low - Few parts of the area can provide challenging recreation opportunities.

Rating: **High** - The potential wilderness provides physically challenging recreation opportunities. The physical and mental challenges are increased by the area's size and diversity of terrain.

9. Opportunity to experience solitude and isolation from human activities while recreating in the area.

High - Significant feeling of being alone or remote from civilization.
Medium - Feeling of being alone is possible but signs of civilization are likely.
Low - Little opportunity of feeling alone.

Rating: **High** - The potential wilderness provides opportunities for solitude throughout the area. Signs of civilization are only visible in conjunction with the highway along the eastern boundary and the private lands along the west boundary.

10. Opportunity to engage in primitive and unconfined recreation such as backpacking, kayaking, hunting, fishing, etc

High - There are many opportunities for engaging in primitive recreation.
Medium - There are some opportunities for engaging in primitive recreation.
Low - There are few to no opportunities to engage in primitive recreation.

Rating: **High** - There are opportunities for horseback riding/horse-packing, backpacking, hunting, viewing wildlife, and photography in the potential wilderness.

Special Features and Values

11. Area contains outstanding or distinct features like rock formations, panoramic views, etc.

High - Many distinct features or few but exceptional features.
Medium - Some distinct features.
Low - One or no distinct features.

Rating: **High** - There are outstanding panoramic views throughout the potential wilderness, especially from ridges and along the Highline Trail.

12. Area has potential for scientific research, environmental education, or historic/cultural opportunities.

High - Good potential for two or more types of these opportunities.
Medium - Potential for one type of opportunity.
Low - Little or no potential for this type of opportunity.

Rating: **High** - There is the potential for scientific research because of the ecological diversity of the area and the presence of historic and cultural resources.

13. Area contains unique or rare species of plants and/or animals.

High - Area has several unique or rare plants and/or animals.
Medium - Area has a few unique or rare plants and/or animals.
Low - Area has no unique or rare plants and/or animals.

Rating: **High** - The threatened loach minnow is found in Eagle Creek. The endangered Gila Chub is found in both Eagle and East Eagle Creeks. Northern goshawk post-fledging family areas and Mexican spotted owl protected activity centers are found on lands within and adjoining the potential wilderness. Sensitive plant species along Eagle Creek include Blumer's dock and *Wislizeni* gentian. Other rare or unique species include loach minnow, spikedace, Chiricahua leopard frog, Mexican gartersnake, roundtail chub, longfin dace, desert sucker, bald eagle, common black-hawk, Springerville silky pocket mouse, narrow-headed gartersnake, Arizona toad, northern leopard frog, lowland leopard frog, spotted bat, zone-tailed hawk, and Arizona Bell's vireo.

Overall Capability: **High**

Manageability

14. Ability to manage the area for wilderness character, including distance and influence from outside activities; opportunity to access the area; and resource conflicts or encumbrances.

High - Isolated from areas of activity; controlled or limited access; no encumbrances or resource conflicts.
Medium - Somewhat isolated from areas of activity; adequate access opportunities; some resource conflicts and/or encumbrances.
Low - Areas of activity are nearby; many access opportunities; many resource conflicts and/or encumbrances.

Rating: **Medium** - The potential wilderness is somewhat isolated, but there are adequate access opportunities and there may be some conflicts between motorized and non-motorized recreation opportunities.

15. Motorized use within the area.

Yes - Has motorized vehicle use.
No - Does not have any motorized vehicle use.

Rating: **Yes** - There are two roads (FR 8369 and FR 587) that are bounded on both sides by the potential wilderness. There are also two motorized trails, which are adjacent to or bounded by the potential wilderness.

Overall Manageability: **Medium**

Appendix C: Availability Evaluation and Ratings

Availability Characteristics

1. Areas that are of high value for water yield or on-site storage where installation and maintenance of improvements may be required.

High - No impoundment needed.
Medium - Minor improvements will have an effect.
Low - Identified impoundment that will have an effect on wild characteristics.

Rating: **High** - The area is of value for water yield. However, no impoundments are needed.

2. Areas needing management for wildlife or aquatic animals that MIGHT conflict with wilderness management.

Low - Intense management (motorized equipment: helicopters, chainsaws, broadcast burning) and frequent entries (= or <5 yrs).
Medium - Management requires helicopters but no motorized equipment on the ground and frequency is generally less than 10 years.
Hi**gh** - Low management requirements with no motorized equipment required to meet objectives and infrequent entries.

Rating: **Low to Medium** - Ongoing restoration work and elk and mule deer habitat enhancement over the next 10 years will require use of power tools/equipment for thinning and prescribed fire.

3. Area needing active aquatic restoration activities.

Low - The majority of watershed needs attention.
Medium - Site-specific improvements needed.
High - Properly functioning with no or little restoration activities needed.

Rating: **Medium** - Chitty Creek is identified as suitable for Gila trout reintroduction. However, 2007 monsoon rain and winter flood events scoured Chitty Creek, removing the riparian habitat and changing the floodplain. A long-term management plan for Chitty Creek is under preparation and management activities may include the use of motorized tools.

4. Area needing active vegetative restoration activities due to specific species survival (such as White Bark Pine restoration) or identifiable fuel reduction activity to reduce the risk of catastrophic wildfire or known areas of severe insect infestation that will lead to heavy tree mortality.

Low - The need for vegetation restoration is a higher priority and requires long-term management and mechanized or motorized equipment.
Medium - Areas needing high intensity management activities for a short time period (< or = 5 years). These areas could be available for wilderness after those activities are completed (like fuel reduction activities). Some intense restoration work over small areas could be accomplished without conflicting with wilderness management (species conservation work not requiring motorized equipment).
High - The area needs little vegetative restoration.

Rating: **Low to Medium** - Long-term activities are required for fuel reduction. Over the next 10 years prescribed burning will be needed to reduce biomass accumulations from recent wildfires. Salvage logging and thinning may also be needed.

5. Areas having such unique characteristics or natural phenomena that general public access should be developed to facilitate public use and enjoyment.

High - Does not exist or minimal development will be provided.
Medium - Requires minor development or improvement that does not qualify as a developed recreation site but is a higher development level than is normally found within wilderness.
Low - Has a developed recreation site or features that warrant construction of a developed recreation site.

Rating: **High** - There are no unique characteristics that would require developed public access.

6. Lands committed through contracts, permits or agreements that would be in conflict with wilderness management (some minor permitted uses may be still be allowed).

High - Current authorizations do not conflict with potential wilderness.
Medium - Current authorization(s) but can be terminated or there is long-term authorization or commitment but does not require motorized equipment for access or maintenance.
Low - Currently exists, must be retained (long-term commitments), and requires motorized equipment for access or maintenance.

Rating: **Low** - Current permitted grazing use and the ability to use motorized equipment along two major road corridors with the area and tools to maintain range improvement is critical to the operation and effectiveness of grazing management.

7. Forest Service has sufficient control to prevent development of irresolvable, incompatible use that would lessen wilderness character and potential.

High - No inholdings and no-non-federal lands adjacent to potential wilderness.
Medium - No inholdings but adjacent lands may be private.
Low - Inholdings exist.

Rating: **Medium** - There are private lands and the San Carlos Apache Indian Reservation adjacent to the west boundary. There are also private lands adjacent to the southeast boundary. The remainder of the area has no inholdings or adjacent private lands.

Overall Availability: **Low to Medium**

Appendix D: Need Evaluation

Factor 1 - The location, size, and type of other wildernesses in the general vicinity and their distance from the proposed area. Consider accessibility of areas to population centers and user groups. Public demand for wilderness may increase with proximity to growing population centers.

There are 27 Wildernesses and 1 primitive area[5] within 100 miles of PW-03-01-049. The total acreage of these areas is 1,788,844 acres. The Forest Service (FS) manages 17 of these areas, the Bureau of Land Management (BLM) manages 8, and the National Park Service (NPS) manages 3.

Potential Wilderness	**Existing Wilderness within 100 Miles**	**Existing Wilderness Acreage**	**Distance from Potential Wilderness**	**Managing Agency**
PW-03-01-049	Chiricahua	88,793	106	FS
PW-03-01-049	Chiricahua National Monument	12,161	99	NPS
PW-03-01-049	Saguaro	77,119	108	NPS
PW-03-01-049	Rincon Mountain	38,611	105	FS
PW-03-01-049	Dos Cabezas Mountains	11,855	86	BLM
PW-03-01-049	Pusch Ridge	56,743	107	FS
PW-03-01-049	Redfield Canyon	6,206	86	BLM
PW-03-01-049	Peloncillo Mountains	19,244	79	BLM
PW-03-01-049	Galiuro	75,585	81	FS
PW-03-01-049	Aravaipa Canyon	19,790	74	BLM
PW-03-01-049	North Santa Teresa	5,733	57	BLM
PW-03-01-049	Santa Teresa	28,769	61	FS
PW-03-01-049	Needle's Eye	6,277	73	BLM
PW-03-01-049	Fishhooks	11,400	38	BLM
PW-03-01-049	Aldo Leopold	206,700	90	FS
PW-03-01-049	White Canyon	6,981	100	BLM
PW-03-01-049	Gila	558,549	59	FS
PW-03-01-049	Superstition	158,920	100	FS
PW-03-01-049	Blue Range Primitive Area	179,819	13	FS
PW-03-01-049	Blue Range	35,815	25	FS
PW-03-01-049	Salt River Canyon	32,035	82	FS
PW-03-01-049	Bear Wallow	11,113	9	FS
PW-03-01-049	Salome	18,688	100	FS
PW-03-01-049	Sierra Ancha	18,198	90	FS
PW-03-01-049	Mount Baldy	7,627	35	FS
PW-03-01-049	Escudilla	5,210	38	FS
PW-03-01-049	Hellsgate	38,845	107	FS
PW-03-01-049	Petrified Forest	52,058	97	NPS
	TOTAL	1,788,844		

[5] The Blue Range Primitive Area is the last remaining such area in the United States. It is managed as wilderness in accordance with Forest Service Manual 2320.3(11).

There are 12 Wildernesses, 1 primitive area, and 1,204,467 wilderness and primitive area acres within 100 miles of Silver City, New Mexico. There are 28 potential wildernesses and 472,888 potential wilderness acres on the ASNFs within 100 miles of Silver City (only acres within 100 miles are shown; actual and potential wildernesses may be larger).

Population Center	**Wilderness within 100 Miles**	**Wilderness Acres within 100 Miles**	**Potential Wilderness Within 100 Miles**	**Potential Wilderness Acres within 100 Miles**
Silver City	Aldo Leopold	206,700	PW-03-01-021	992
	Apache Kid	44,835	PW-03-01-022	1,031
	Bear Wallow	11,113	PW-03-01-063	5,381
	Blue Range Primitive Area	179,819	PW-03-01-029	1,160
	Blue Range	35,815	PW-03-01-065	484
	Chiricahua	88,793	PW-03-01-047	5,713
	Chiricahua National Monument	12,161	PW-03-01-064	172
	Dos Cabezas Mountains	11,855	PW-03-01-046	11,317
	Escudilla	5,210	PW-03-01-035	6,032
	Fishhooks	11,400	PW-03-01-044	6,497
	Gila	558,549	PW-03-01-066	1,205
	Peloncillo Mountains	19,244	PW-03-01-043	2,344
	Withington	18,973	PW-03-01-069	33,662
	TOTAL	1,204,467	PW-03-01-041	9,435
			PW-03-01-049	76,048
			PW-03-01-040	2,653
			PW-03-01-060	15,222
			PW-03-01-043	1,835
			PW-03-01-042	7,835
			PW-03-01-050	7,959
			PW-03-01-051	44,075
			PW-03-01-052	156,297
			PW-03-01-055	1,254
			PW-03-01-067	30,340
			PW-03-01-053	17,526
			PW-03-01-058	5,217
			PW-03-01-057	5,692
			PW-03-01-054	15,510
			TOTAL	472,888

There are 34 Wildernesses, 1 primitive area and 1,487,287 Wilderness and primitive area acres within 130 miles of Tucson. There are 13 potential wildernesses and 354,490 potential wilderness acres on the ASNFs within 130 miles of Tucson (only acres within 130 miles are shown; actual and potential wildernesses may be larger).

Population Center	Wilderness within 130 Miles	Wilderness Acres within 130 Miles	Potential Wilderness Within 130 Miles	Potential Wilderness Acres within 130 Miles
Tucson	Aravaipa Canyon	19,790	PW-03-01-054	15,510
	Baboquivari Peak	2,776	PW-03-01-058	5,217
	Bear Wallow	11,100	PW-03-01-053	17,526
	Blue Range Primitive Area	23,390	PW-03-01-057	5,692
	Chiricahua	88,793	PW-03-01-067	30,340
	Chiricahua National Monument	12,161	PW-03-01-051	44,075
	Coyote Mountains	5,795	PW-03-01-052	139,894
	Dos Cabezas Mountains	11,855	PW-03-01-050	7,959
	Fishhooks	11,400	PW-03-01-069-3	1,689
	Four Peaks	60,487	PW-03-01-069-4	10,395
	Galiuro	75,585	PW-03-01-049	74,133
	Mazatzal	42,986	PW-03-01-066	865
	Miller Peak	20,381	PW-03-01-064	172
	Mount Wrightson	25,596	PW-03-01-047	1,023
	Needle's Eye	6,277		354,490
	North Maricopa Mountains	61,157		
	North Santa Teresa	5,733		
	Organ Pipe Cactus (NPS)	280,403		
	Organ Pipe Cactus (FWS)	120,043		
	Pajarita	7,897		
	Peloncillo Mountains	19,244		
	Pusch Ridge	56,743		
	Redfield Canyon	6,206		
	Rincon Mountain	38,611		
	Saguaro	77,119		
	Salome	18,688		
	Salt River Canyon	32,035		
	Santa Teresa	28,769		
	Sierra Ancha	18,198		
	Sierra Estrella	14,746		
	South Maricopa Mtns	58,963		
	Superstition	158,920		
	Table Top	34,696		
	White Canyon	6,981		
	Woolsey Peak	23,763		
		1,487,287		

Factor 2 - Present visitor pressure on other wildernesses, the trends in use, changing patters of use, population expansion factors, and trends and changes in transportation.

Item 1

Each Federal agency that manages wilderness collects and reports visitor use information differently. The Forest Service reports wilderness use by each national forest, not each wilderness. The National Park Service collects backcountry visitor use only for overnight stays. The Bureau of Land Management reports use for each wilderness.

According to the 2001 National Visitor Use Monitoring study, approximately two percent of the Apache-Sitgreaves National Forests (ASNFs) users visited the three wilderness areas on the forest. This figure is similar to other non-urban forests in the Southwestern Region. More urban forests (Cibola and Coronado) reported approximately 25% of their users visited wilderness areas.

Most of the wilderness use on the ASNFs is concentrated in the two smaller wilderness areas, Mount Baldy and Escudilla. These areas are each less than 10,000 acres, are easily accessible by motor vehicles, and have limited trail systems. Visitor use in Mount Baldy is considered high with use concentrated on two of the three trails. Visitor use in Escudilla is considered moderate to high with use concentrated on one trail. Encounters with other wilderness visitors in both areas are high. Use in Bear Wallow Wilderness is lighter because it is less accessible and is slightly larger. There are no accurate use figures for the Blue Range Primitive Area, which is managed as wilderness.

Approximately 70 percent of the Arizona visitors to the ASNFs are from the Phoenix and Tucson metropolitan areas. Populations in these areas have increased much faster than in the more rural areas. Visitors from the four counties where the ASNFs are located account for another 20 percent. In general, there has been no to moderate population growth in these counties. Recently, there have been major highway improvements between Phoenix and the ASNFs.

It can be assumed that with increasing populations and improved transportation features, wilderness use would continue to increase in those wilderness areas on the ASNFs that are easily accessible to the recreating public.

Item 2

The ASNFs include three designated wilderness areas, the nation's sole remaining primitive area, and 322,000 acres of inventoried roadless areas. Users of designated wilderness areas fit a profile similar to other forests' users: 1) they are predominantly male (81 percent), 2) white (91 percent) or Hispanic/Latino (6 percent), 3) between the ages of 31 and 60, and 4) often travel from the Phoenix and Tucson areas. NVUM data suggest that roughly 45,000 wilderness visits were made during fiscal year 2001 although the error rate on this data is very high (± 56 percent) because of the relatively low number of visitors interviewed (Kocis et al. 2002). There are no use figures specific to the Blue Range Primitive Area or the inventoried roadless areas.

<u>Regional Demand for Wilderness</u>

1. Increased demand for additional wilderness in both Arizona and New Mexico should be anticipated based on population growth that occurred during the period of 1990 to 2000, which exceeded the national growth rate.

2. Assuming Arizona continues to grow at a rate greatly outpacing the national rate (predicted to be about 3 times the national rate), the number of visits to existing wilderness will continue to increase, and Arizona in particular could benefit from additional wilderness.
3. Demographics related to visitor race and ethnicity will affect the rate of increase in wilderness visits in the Southwestern Region. Even though the faster growing racial/ethnic groups have relatively low participation rates, wilderness use is still expected to increase because of the overall population growth rate.
4. Public demand increases with proximity to six population centers: Flagstaff, Phoenix, Tucson, Santa Fe, Taos, and Albuquerque. Consider wilderness recommendations within 100-150 miles of those cities to provide for that demand.
5. Some additional public demand for wilderness in the Southwestern Region will occur from the influx of people moving to communities in the vicinity of the National Forests.
6. In terms of geographic distribution of wilderness, the Southwestern Region is under-represented with five percent fewer wilderness acres as compared with the representation nationally. Additionally, all quadrants in Arizona and New Mexico are under-represented with the exception of the southwest and southeast quadrants in Arizona. The most under-represented quadrants when compared with total federal wilderness acres are southeast and northwest New Mexico, and northeast Arizona which are at 6 percent or less in the number of wilderness acres.
7. Desirability of the scenic mountainous settings available in the rural communities within and adjacent to national forests in the Southwestern Region will attract new retirees and others, further contributing to a growth in wilderness visitation.

Factor 3 - The extent to which nonwilderness lands on the NFS unit or other Federal lands are likely to provide opportunities for unconfined outdoor recreation experiences.

There are 53 Inventoried Roadless Areas (IRA) and 1,206,507 IRA acres within 100 miles of Silver City. There are 11 BLM Wilderness Study Areas (WSA) and 173,476 WSA acres within 100 miles of Silver City (only acres within 100 miles are shown; actual IRAs and WSAs may be larger).

Within 100 miles of Silver City and on the ASNFs, there are 359,469 acres managed for Semi-Primitive Motorized (SPM) recreation, 282,175 acres managed for Semi-Primitive Non-motorized (SPNM) recreation, and 287,933 acres managed for Primitive recreation. Many of these acres overlap with existing wilderness areas, the Blue Range Primitive Area, IRAs, and potential wilderness areas.

Population Center	Inventoried Roadless Area within 100 Miles	IRA Acres within 100 Miles	National Forest
Silver City	1978 Administratively Endorsed Wilderness Proposal	4,281	Gila
	Apache Kid Contiguous	45,288	Cibola
	Apache Mountain	17,484	Gila
	Aspen Mountain	33,100	Gila
	Bear Wallow	876	Apache-Sitgreaves
	Black River Canyon	8,351	Apache-Sitgreaves
	Brushy Mountain	7,191	Gila
	Brushy Springs	5,728	Gila
	Campbell Blue	6,995	Apache-Sitgreaves
	Canyon Creek	9,814	Gila
	Centerfire	13,115	Apache-Sitgreaves
	Chiricahua	76,876	Coronado
	Black & Aldo Leopold Wilderness Contiguous	49,545	Gila
	Blue Range Wilderness Contiguous	1,978	Gila
	Gila Wilderness & Primitive Area Contiguous	78,973	Gila
	Datil	13,941	Cibola
	Devils Creek	89,814	Gila
	Dry Creek	26,690	Gila
	Eagle Peak	33,976	Gila
	Elk Mountain	6,542	Gila
	Escudilla Mountain	884	Apache-Sitgreaves
	Frisco Box	38,932	Gila
	Gila Box	23,741	Gila
	Hell Hole	35,034	Apache-Sitgreaves
	Hot Air	31,677	Apache-Sitgreaves
	Largo	12,715	Gila
	Lower San Francisco	59,248	Apache-Sitgreaves
	Lower San Francisco	26,432	Gila
	Meadow Creek	34,137	Gila
	Mitchell Peak	35,361	Apache-Sitgreaves
	Mother Hubbard	2,174	Apache-Sitgreaves

Population Center	Inventoried Roadless Area within 100 Miles	IRA Acres within 100 Miles	National Forest
	Mother Hubbard	5,888	Gila
	Nolan	13,035	Gila
	Nolan	6,772	Apache-Sitgreaves
	Painted Bluffs	43,074	Apache-Sitgreaves
	Peloncillo	22,047	Coronado
	Pinaleno	23,363	Coronado
	Pipestem	34,560	Apache-Sitgreaves
	Pipestem/Lower San Francisco	152	Apache-Sitgreaves
	Poverty Creek	8,760	Gila
	Salt House	21,823	Apache-Sitgreaves
	San Jose	14,952	Cibola
	Santa Teresa	131	Coronado
	Sawyers Peak	59,696	Gila
	Stone Canyon	6,793	Gila
	Sunset	28,920	Apache-Sitgreaves
	T Bar	6,815	Gila
	Taylor Creek	16,621	Gila
	The Hub	7,489	Gila
	Wagon Tongue	11,397	Gila
	Wahoo Mountain	21,847	Gila
	White Cap	8,026	Cibola
	Winchester	13,453	Coronado
	TOTAL	1,206,507	

Population Center	BLM Wilderness Study Area within 100 Miles	WSA Acres within 100 Miles
Silver City	Cowboy Springs	6,228
	Horse Mountain	7,881
	Big Hatchet Mountains	15,370
	Continental Divide	73,879
	Cedar Mountains	14,875
	Florida Mountains	2,106
	Peloncillo Mountains	3,981
	Apache Box	6,218
	Cooke's Range	19,858
	Gila Lower Box	8,515
	Blue Creek	14,565
	TOTAL	173,476

There are 42 Inventoried Roadless Areas (IRA) and 860,959 IRA acres within 130 miles of Tucson There are 6 BLM Wilderness Study Areas (WSA) and 42,180 WSA acres within 130 miles of Tucson (only acres within 130 miles are shown, actual IRAs and WSAs may be larger).

Within 130 miles of Tucson and on the ASNFs, there are 101,939 acres managed for Semi-Primitive Motorized (SPM) recreation, 189,810 acres managed for Semi-Primitive Non-motorized (SPNM) recreation, and 92,218 acres managed for Primitive recreation. Many of these acres overlap with the existing wilderness areas, the Blue Range Primitive Area, IRAs, and potential wilderness areas.

Population Center	**Inventoried Roadless Area within 130 Miles**	**IRA Acres within 130 Miles**	**National Forest**
Tucson	Bear Wallow	784	Apache-Sitgreaves
	Black Cross	5,959	Tonto
	Black River Canyon	734	Apache-Sitgreaves
	Boulder	40,310	Tonto
	Butterfly	42,278	Coronado
	Catalina St. Pk.	950	Coronado
	Cdo Wsa	1,954	Coronado
	Cherry Creek	11,357	Tonto
	Chiricahua	76,892	Coronado
	Galiuro	28,314	Coronado
	Goldfield	15,239	Tonto
	Happy Valley	7,971	Coronado
	Hell Hole	15,498	Apache-Sitgreaves
	Hell Hole	19,536	Gila
	Horse Mesa	9,136	Tonto
	Hot Air	31,677	Apache-Sitgreaves
	Lime Creek	8,662	Tonto
	Lower Dragoon	1,165	Coronado
	Lower Rincon	3,278	Coronado
	Lower Romero WSR	10	Coronado
	Lower San Francisco	1,045	Gila
	Lower San Francisco	36,279	Apache-Sitgreaves
	Mazatzal	2,626	Tonto
	Middle Dragoon	10,544	Coronado
	Middle Romero WSR	60	Coronado
	Mitchell Peak	35,362	Apache-Sitgreaves
	Oracle	22,354	Coronado
	Painted Bluffs	43,074	Apache-Sitgreaves
	Peloncillo	56,469	Coronado
	Picacho	4,963	Tonto
	Pinaleno	130,834	Coronado
	Pipestem	34,560	Apache-Sitgreaves
	Pipestem/Lower San Francisco	152	Apache-Sitgreaves
	Salome	2,928	Tonto
	Salt House	21,822	Apache-Sitgreaves

Population Center	Inventoried Roadless Area within 130 Miles	IRA Acres within 130 Miles	National Forest
	Santa Rita	6,079	Coronado
	Santa Teresa	8,921	Coronado
	Sierra Ancha Wilderness Contiguous	7,778	Tonto
	Sunset	28,920	Apache-Sitgreaves
	Tumacacori	44,626	Coronado
	Upper Dragoon	2,533	Coronado
	Upper Rincon	2,990	Coronado
	Upper Romero WSR	150	Coronado
	Whetstone	20,733	Coronado
	Winchester	13,453	Coronado
		860,959	

Population Center	BLM Wilderness Study Area within 130 Miles	WSA Acres within 130 Miles
Tucson	Apache Box	6,218
	Baker Canyon	4,697
	Blue Canyon	14,565
	Gila Lower Box	8,515
	Guadalupe Canyon ISA	4,204
	Peloncillo Mountains	3,981
		42,180

Factor 4 - The need to provide a refuge for those species that have demonstrated an inability to survive in less than primitive surroundings or the need for a protected area for other unique scientific values or phenomena.

The ASNFs have identified 11 Threatened and Endangered species, 105 Species of Concern[6], and 208 Species of Interest[7] that occur or are found on the forests. None of these species require a primitive wilderness environment to survive. However, some (Mexican gray wolf, for example) would benefit from reduced disturbance and human encounters.

[6] Species of Concern are species for which management actions may be necessary to prevent listing under the Endangered Species Act.
[7] Species of Interest are species for which management actions may be necessary to achieve ecological or other multiple-use objectives.

Factor 5 - Within social and biological limits, management may increase the capacity of established wildernesses to support human use without unacceptable depreciation of the wilderness resource.

There are three existing wildernesses on the ASNFs, all on the Apache side. Two, Mount Baldy and Escudilla, are less that 10,000 acres, are easily accessible by motor vehicles, and have limited trail systems. Visitor use in Mount Baldy is considered high with use concentrated on two of the three trails. Visitor use in Escudilla is considered moderate to high with use concentrated on one trail. Encounters with other wilderness visitors in both areas are high. For these two areas there are limited management opportunities to accommodate additional use. The third wilderness, Bear Wallow, is slightly larger, is more difficult to access, and has four trails. Visitor use is considered low. Here, additional demand could be accommodated without management changes.

Factor 6 - An area's ability to provide for preservation of identifiable landform types and ecosystems. Consideration of this factor may include utilization of Edwin A. Hammond's subdivision of landform types and the Bailey-Kuchler ecosystem classification. This approach is helpful from the standpoint of rounding out the National Wilderness Preservation System and may be further subdivided to suit local, subregional, and regional needs.

The Southwestern Regional Office used the process outlined in Loomis and Echohawk (1999)[8] to determine the underrepresented landforms and ecosystem types in Wilderness within Region 3.

The following landforms within the White Mountains-San Francisco Peaks-Mogollon Rim ecoregion section (where the ASNFs are located) are underrepresented in Wilderness in the region: Burro Mountains Oak-Juniper Woodland, Coconino Plateau Woodland, and San Francisco Peaks Coniferous Forest. Only Burro Mountain Oak-Juniper Woodland and Coconino Plateau Woodland are found on the ASNFs.

The following ecosystems types are underrepresented in Wilderness in the region: Desert Communities, Great Basin/Colorado Plateau Grassland, Great Plains Grassland, Piñon-Juniper Woodland, Sagebrush Shrubland, and Semi-desert Grassland. Only Great Basin Grassland, Piñon-Juniper Woodland, and Semi-desert Grassland are found on the ASNFs.

This potential wilderness contains one underrepresented ecosystem, 5,743 acres of Semi-Desert Grassland.

***Overall Need*: Low**

[8] Loomis, John and Echohawk, J. Chris. 1999. Using GIS to identify under-represented ecosystems in the National Wilderness Preservation System in the USA. *Environmental Conservation*. 26 (1): 53–58.

UNDERREPRESENTED LANDFORMS

Potential Wilderness	Name	Acreage	Acres of Burro Mountains Oak-Juniper Woodland	Acres of Coconino Plateau Woodland
PW-03-01-001	Leonard Canyon	22,405		7,171
PW-03-01-003	West Chevelon Canyon	9,493		3,689
PW-03-01-011	Black Canyon	4,913		4,911
PW-03-01-053	Cold Spring Mountain	17,541	1,878	
PW-03-01-054	Hells Hole	15,524	15,439	
PW-03-01-056	Chevelon Canyon North	6,678		6,612
PW-03-01-057	Coal Creek	5,698	370	
PW-03-01-058	Big Lue Mountains	5,222	4,932	

UNDERREPRESENTED ECOSYSEMS

Potential Wilderness	Name	Acreage	Acres of Great Basin Grassland	Acres of Piñon-Juniper Woodland	Acres of Semi-Desert Grassland
PW-03-01-001	Leonard Canyon	22,405		9,245	
PW-03-01-003	West Chevelon Canyon	9,493		5,273	
PW-03-01-006	Wildcat Canyon South	6,972	5	993	
PW-03-01-011	Black Canyon	4,913	819	3,963	
PW-03-01-040	Mother Hubbard	2,656		922	
PW-03-01-042	Noland	7,843		333	
PW-03-01-049	Hot Air/Salt House	76,111			5,743
PW-03-01-050	Sheep Wash	7,965			1,259
PW-03-01-051	Painted Bluffs	44,106			6,896
PW-03-01-052	West Blue/San Francisco	156,437			32,538
PW-03-01-053	Cold Spring Mountain	17,541			4,790
PW-03-01-054	Hells Hole	15,524			4,856
PW-03-01-056	Chevelon Canyon North	6,678	2,244	4,372	
PW-03-01-057	Coal Creek	5,698			1,027
PW-03-01-058	Big Lue Mountains	5,222			1,172
PW-03-01-060	Centerfire	15,239		503	
PW-03-01-062	Chevelon Lake	6,585		596	
PW-03-01-063	Milk Creek	5,387	400	2,039	
PW-03-01-067	Sunset	30,365			17,755
PW-03-01-069-1	BRPA Exclusion 1	7,792		770	245
PW-03-01-069-2B	BRPA Exclusion 2b	6,958			3,404
PW-03-01-069-3	BRPA Exclusion 3	4,665			304
PW-03-01-069-4	BRPA Exclusion 4	10,404			2,032