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Coronado National Forest Draft Galiuro Addition Potential Wilderness Area Evaluation Report PW-03-05-D4-002

This draft potential wilderness evaluation report is divided into three parts: capability, availability, and need. Capability and availability are intended to be objective evaluations of existing conditions in the Galiuro Addition Potential Wilderness Area.

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 this area of the Galiuro Mountains fits into the National Wilderness Preservation System at the regional level. This report offers data that helps the Forest Service 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 wilderness evaluation.

We would like your feedback on this draft report - if we have missed an important detail or you would like to share your comments or other input, please contact us (our contact information can be found on page 13 of this report).

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Introduction

As part of the Land and Resource Management Plan (the Forest Plan) revision for the Coronado National Forest, the Forest Service has prepared this draft wilderness evaluation report for the Galiuro Addition Potential Wilderness Area (see Map 1).

Purpose

Completion of a potential wilderness inventory and evaluation is an essential step in the Forest Plan revision process. The Forest Service must evaluate all lands possessing wilderness characteristics for potential wilderness during Forest Plan revision. Wilderness is just one of many special area designations that the Forest Service will consider during Forest Plan revision, but it is one of only two special area evaluations that are mandatory. If an area is recommended for wilderness designation, then the revised Forest Plan will contain goals and objectives that protect its wilderness characteristics.

The Process

A wilderness evaluation begins with an inventory of potential wilderness, which includes areas of federal land over 5,000 acres, and then determines if those areas meet the definition of wilderness as defined in the Wilderness Act of 1964 (see Appendix A). Once a list of potential wilderness areas is created, each area is evaluated for capability, availability and need. These evaluation factors are described in more detail in this report in the introductions to each evaluation step and in Appendix A. The purpose of this report is to summarize the findings of the wilderness capability, availability and need evaluations based on the best available data.

The Coronado National Forest will use this report when making a preliminary administrative recommendation for wilderness or non-wilderness designation for the Galiuro Addition Potential Wilderness Area (Galiuro Addition PWA, the PWA). The Deciding Official's (the Regional Forester) recommendation will be documented in the final Forest Plan. Public comments on this issue will be accepted and considered throughout the Forest Plan revision process. If this area 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 in accordance with the National Environmental Policy Act, including further public review and comment. Ultimately, only Congress has the authority to make final decisions on wilderness designation.

Area Overview

Description

Size and Location: The Galiuro Addition Potential Wilderness Area encompasses 8,668 acres. This PWA is located in the northern Galiuro Mountain Range and is adjacent to the existing Galiuro Wilderness. This area would be an expansion of the Galiuro Wilderness that is now 76,317 acres, bringing the overall size to 84,985 acres if recommended. This area is located in the Galiuro Mountains, which is part of the Safford Ranger District of the Coronado National Forest.

Vicinity, Surrounding and Access: The Galiuro Addition Potential Wilderness Area addition is approximately 40 miles southwest of Safford, Arizona and approximately 45 miles from Willcox, Arizona within the Safford Ranger District in Graham County, Arizona. The PWA is completely surrounded by National Forest System (NFS) lands within the Forest boundary and adjoins the northern boundary of the Galiuro Wilderness Area in the Galiuro Mountains. The PWA is also within close proximity to the Aravaipa Wilderness Area.

The northern end of the Galiuro Mountains (near the Aravaipa/Klondyke area) is very isolated and rural in nature. The primary motorized access to the Aravaipa/Klondyke area is provided by Graham County-maintained roads from U. S. Highway 70 between Pima and Ft. Thomas, Arizona and from the end of State Highway 266 at Bonita, Arizona. In addition, Ft. Grant Road, (a Cochise and Graham Counties-maintained road) provides motorized access from Interstate 10 at Willcox, Arizona north to Aravaipa/Klondyke/Bonita Road at Bonita, Arizona.

At the north end of the Galiuro Mountains, Rattlesnake Mesa Road (Forest Road 96) and the Long Hollow Road (Forest Road 6633) are the primary motorized access roads from Aravaipa/Klondyke Road across private and State Trust land into the National Forest. Rattlesnake Mesa Road provides high-clearance 4-wheel-drive vehicle access to NFS lands to Powers Hill. At Powers Hill is the Powers Garden Trail Trailhead (Forest Trail 96) and the entrance to the Galiuro Wilderness Area. A portion of the Powers Garden Trail passes within approximately ½ mile of the PWA near the end of the road near Grapevine Springs. A majority of Rattlesnake Mesa Road traverses State Trust lands and private land for approximately a half mile. The Arizona Game and Fish Department currently has a short-term public access agreement with the current landowners for the portions of this road across private land.

Fourmile Canyon Road provides motorized access to Mescal Road (Forest Road 6608), NFS lands and Long Hollow Well Road near Soda Spring within the National Forest. Mescal Road provides high-clearance 4-wheel-drive vehicle access to French Gap Road (Forest Road 6608J). French Gap Road provides motorized access to French Gap Spring, which is approximately ¼ mile north of the PWA. However, both Fourmile Canyon and Mescal Roads are gated and locked in several locations on private land outside the proclaimed Forest boundary and are unavailable for access to NFS lands by the general public.

Currently, there are no National Forest System Trails within the PWA. However, several Forest Trails within the Galiuro Wilderness Area provided non-motorized access to the PWA.

Although there is physical motorized road access into the northern end of the Galiuro Mountains, there is no permanent legal access to the NFS lands within the proclaimed National Forest System boundary for the entire mountain range. It is unknown whether there is any right-of-way for public access via those portions of roadway across the State Trust and private lands. In addition, the legal status of the county road system in the area has been under dispute for a number of years. Permanent legal public motorized road and non-motorized trail access to the NFS lands into the northern end of the Galiuro Mountains as well as the PWA will continue to be a major issue.

Geography & Topography: The Galiuro Addition Potential Wilderness Area (PWA) straddles the crest of the Galiuro Range and covers 8,668 acres of steep, rugged mountainous terrain. The PWA rises from a low point of 4,550 feet above sea level near Horse Camp Coral in a tributary of Bottle Canyon along the eastern flank of the range to a maximum elevation of 7,003 feet at Maverick Mountain along its southern boundary with the existing Galiuro Wilderness, entirely within the Galiuro Unit of the Safford Ranger District, Coronado National Forest.

The Galiuro Mountains are a typical northwest-trending, block-faulted range within the Mexican Highlands Sub-province of the Southern Basin and Range Province. The physiography of the Mexican Highlands is characterized by greater average altitudes, higher local relief and more extensive basin dissection when compared to the broad, undissected valleys and low mountain ranges of the adjacent Sonoran Desert Sub-province. The range is bounded by the San Pedro River Basin to the southwest and Aravaipa Valley to the northeast.

The mountain range is characterized by a gentle, northeast-dipping sequence of middle Tertiary volcanic rock units which range up to several thousand feet in thickness. This unmineralized volcanic pile overlies an older, strongly mineralized assemblage of Cretaceous volcanic and related intrusive rocks, late Precambrian to Paleozoic sediments and Precambrian schist. A significant exposure of these older rock units can be found along the southwestern range front, exposed within a narrow erosional window developed in the younger volcanic sequence located immediately northwest and west of the Galiuro Addition PWA.

Appearance and Vegetation: Due steep topography, the vegetation is largely unmodified pinyon, juniper and evergreen oak woodland communities. Species include Madrean evergreen oaks such as Arizona white oak (*Quercus arizonica*), Emory oak (*Quercus emoryi*), gray oak (*Quercus grisea*), Mexican blue oak (*Quercus oblongifolia*) and Toumey oak (*Quercus toumeyii*). Other tree species [including pinyon pines (*Pinus cembroides* and *Pinus monophylla*), Chihuahua pine (*Pinus leiophylla*), Arizona cypress (*Cupressus arizonica*) and alligator juniper (*Juniperus deppeana*)] and interior chaparral species [including manzanita spp. (*Arctostaphylos* spp.), crucifixion thorn (*Canotia holacantha*), desert ceanothus (*Ceanothus greggii*), mountain mahogany (*Cercocarpus montanus*), little-leaved mountain mahogany (*Cercocarpus intricatus*), antelope bushes (*Purshia* spp.), silktassles (*Garrya* spp.), Stansbury cliffrose (*Purshia stansburiana*), shrub live oak (*Quercus turbinella*) and sumacs (*Rhus* spp.)] may be present but do not co-dominate. The ground cover is dominated by warm-season grasses such as threeawns (*Aristida* spp.), blue grama (*Bouteloua gracilis*), sideoats grama (*Bouteloua curtipendula*),

Rothrock grama (*Bouteloua rothrockii*), Arizona cottontop (*Digitaria californica*), plains lovegrass (*Eragrostis intermedia*), curly-mesquite (*Hilaria belangeri*), green sprangletop (*Leptochloa dubia*), muhly grasses (*Muhlenbergia* spp.) or Texas bluestem (*Schizachyrium cirratum*). Overstory canopy is less than 20% in about 60% of the community. Riparian areas have a variety of upland and obligate riparian species, including Fremont cottonwood (*Populus fremontii*), velvet ash (*Fraxinus velutina*), Arizona sycamore (*Platanus wrightii*), Arizona walnut (*Juglans major*), Goodding willow (*Salix gooddingii*), yewleaf willow (*Salix taxifolia*) and Arizona cypress (*Cupressus arizonica*). Historically, some areas near canyon bottoms were logged to provide wood for nearby mines, but second growth has matured. Fire suppression has allowed for more dense upland stands than may have been present historically.

Current Uses

Recreation: Recreation uses include hiking, dispersed camping and hunting. There are no system trails in this area. This area is adjacent to the Galiuro Wilderness. Most of the area is Recreation Opportunity Spectrum (ROS) class Primitive, with smaller areas of Semi-Primitive Non-Motorized and Semi-Primitive Motorized.

Wildlife and Rare Plants: There are 461 species on the Coronado National Forest's initial list of species to be evaluated for viability concerns during the Forest Plan revision process. Screening of the initial list resulted in 304 species being carried forward in the viability evaluation. In the Galiuro Mountains, there are 46 species on the viability evaluation list (see Appendix B), including six Threatened and Endangered species. This is a fairly large mountain range that is somewhat remote and only moderately explored, and a substantial portion of it lies in other ownerships. Some noteworthy aquatic species on-Forest or downstream include Chiricahua leopard frog, spikedace, loach minnow, desert sucker, desert shadowdamsel and speckled dace. The Galiuro talussnail is an endemic land mollusk. There are several vascular plants that are just found on a few other mountain ranges of the Coronado National Forest. The region of the proposed wilderness area is poorly known biologically. Some of the headwater streams drain into Aravaipa Creek to the north, an important fish-bearing stream.

Range: There are six grazing allotments within the Galiuro Addition Potential Wilderness Area: Bottle Canyon, Copper Creek, Deer Creek, Four Mile, Sombrero Butte and Squaw Basin. All of these allotments are active with valid permitted uses. The range improvements within the potential wilderness area include fences, pipelines, water developments, and a corral and a storage building.

Water: The watersheds represented are Lower Aravaipa Creek (HUC 1505020307), Tucson Wash-Lower San Pedro River (HUC 1505020208), Alder Wash-Lower San Pedro River (HUC 1505020305) and Upper Aravaipa Creek (HUC 1505020304). There are eleven known springs developed for livestock and wildlife use and three stockponds within the potential wilderness. There is no known perennial water. No water quality data has been collected within the potential wilderness.

Minerals: The older, pre-volcanic rocks exposed in the erosional window host the mineralization in the Bunker Hill mining district. The mineralization was initially discovered in 1863 and over the years copper and molybdenum were intermittently mined from numerous shallow, small, near-surface occurrences that dot the area. The district's potential for more significant mineral resource was not realized until the late 1960's with the discovery of a large disseminated copper deposit at American Eagle Basin, located about two miles northwest of the PWA. Following the identification of the Bunker Hill mining district as having potential for large scale porphyry copper deposits, this district has been explored by several major mining companies, including Newmont, Magma Copper, Phelps Dodge, Exxon, AMT International and others.

The mineralized assemblage exposed in the Bunker Hill mining district represents a classic example of a porphyry copper system. These deposits are characterized by enormous volumes of disseminated and veinlet-controlled copper mineralization amenable to development by low-cost bulk tonnage mining methods. Important examples of this class of mineral deposit in southeastern Arizona include the copper mines at Morenci, Sierrita, Safford and Bisbee, which account for 50% to 60% of the world's total copper production and more than 97% of the U.S. copper production. The Bunker Hill mining district is notable for the presence of more than 500 breccia pipes, many of which contain copper mineralization. Ranging from several feet to 800 feet in diameter, these breccias are characterized by nearly vertical pipe-like bodies of intensely broken rock, which may or may not be mineralized. Mineralized breccia pipes are common in the upper levels of other deposits of this class identified above. In 1972 one of the largest non-nuclear explosions in the free world was set off at the neighboring Old Reliable breccia pipe in preparation for an experimental in-situ copper leaching operation.

More recent work in the Bunker Hill area has identified a near-surface resource of 9.4 million tons averaging 1.45% copper and 0.019% molybdenum within five of these breccia pipes. Large disseminated mineralized zones have also been identified from depths of 800 to 3,800 feet at the American Eagle Basin and Keel deposits, where a total resource of 177.2 million tons (averaging 0.77% copper and 0.017% molybdenum) has been delineated. This mineralized system has not been fully defined and remains open in all directions, including projections beneath adjacent cover of thick layers of post-mineral volcanic rocks.

There are several groups of active mining claims in and adjacent to the northwestern part of the PWA held by individuals and small or sole-proprietor mining companies; this area has a history of intermittent mining claim activity. Historically, the most significant is a block of claims in Section 18, T8S, R19E where a large block of mining claims was staked by Magma Copper, then BHP. Later, EXXON held claims in this area from 1957 through 1985. This area should be considered as being "prospective" for major copper resources.

Actual mineral exploratory testing within the PWA has been limited due to the thick pile of volcanic rocks which overlie potentially mineralized formations at depth. Previously, mineral exploration beneath over half a mile of unmineralized cover was not considered to be practical. That viewpoint has changed following the recent discovery of a major, world-class porphyry copper deposit beneath over one mile of post-mineral cover formations of alluvium and volcanic

rocks at the Resolution copper deposit 60 miles north of the PWA and in the geologically similar copper deposits at Bunker Hill.

The geological setting and close proximity of a major mining district near the northwestern boundary of the Galiuro Addition PWA makes it entirely possible that the post-mineral volcanic rocks outcropping within the PWA may conceal zones of mineralization at depth similar to those exposed at Bunker Hill. This speculative but untested mineral potential is considered to be only moderate because the lack of local subsurface information limits any inferences that could be made beneath the thick post-mineral volcanic formations. The presence of active mining claims in Section 18 indicates that knowledgeable people consider that area to have high mineral potential.

Heritage Resources: No previous archaeological research has been conducted in this potential wilderness area and no archaeological sites have been recorded.

Fire: Current management calls for an Appropriate Management Response (AMR) to wildland fires, which includes the full spectrum of options, from aggressive initial attack to management to achieve resource objectives. Natural-caused fires may be allowed to burn in this area in order to restore and sustain ecological processes in fire-dependent ecosystems. The last fire in this area occurred in 2001, burning 5 acres.

Wilderness Capability

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, special features and the ability of the Forest Service to manage the area as wilderness. The first four of these factors consider how the current conditions of the PWA 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 the area as wilderness. This also involves determining if there are possible mitigation measures that could potentially improve the manageability of the area without impacting wilderness character. Factors are rated as high, medium or low, based on the criteria shown in Appendix A.

Naturalness

The Galurio Addition Potential Wilderness Area possesses a moderate degree of naturalness. The ruggedness of this PWA has allowed it to retain a semi-primitive setting. Diversity of vegetation within the PWA boundary is high due to the variety of vegetation types and habitats for diverse wildlife populations. The area is critical habitat for Mexican spotted owls. This area of the Galurio Mountains does not have perennial rivers or streams and there are no known water quality issues. However, there has been mining activity in the past that may impact water quality, but no water samples have been tested. Night skies can be clearly seen and light pollution is not evident. However, one feature that detracts from the area's wilderness capability is the presence throughout the area of the invasive, non-native plant Lehmann lovegrass.

Undeveloped

The Galurio Addition Potential Wilderness Area currently has permitted livestock grazing and mining activity. There is evidence of human use in the area from the range improvements and mining.

Opportunities for Solitude

A person could experience solitude, serenity and self-reliance within this Potential Wilderness Area. The ruggedness of the area provides challenging recreation opportunities, including hiking, back-packing, horseback riding and hunting. This area is remote and adjacent to the existing Galiuro Wilderness that allows for a significant feeling of being away from civilization.

Special Features

The area has some distinct features, specifically, panoramic views from the mountain peaks. The area is rich in natural resources and history and would provide for scientific research, environmental education and historic opportunities. There are a few unique plant and animal species present.

Manageability

The Galiuro Addition Potential Wilderness Area is adjacent to an existing wilderness, but use within the area creates some conflict. The existing mining and ranching, along with the associated roads, encumber the ability and provides some challenges to manage the area for wilderness character.

The Galurio Addition Potential Wilderness Area overall was rated as medium for wilderness capability and medium for the ability of the Forest Service to manage the area as wilderness.

Availability for Wilderness

Availability criteria indicate the availability of a potential wilderness area for wilderness designation by describing other resource and land use potentials for the area. Availability examines the potential impact of designating an area as a 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. Factors are rated as high, medium or low based on the criteria shown in Appendix A.

In the Galurio Addition Potential Wilderness Area, most of the current recreational uses could continue if the area was designated as wilderness. Watersheds within the area are properly functioning and there are no water impoundments or need at this time to install impoundments. There are no ecosystem restoration activities currently planned for the area. However, the area is in need of vegetation treatments and there is the potential for such activities in the future. The area is committed through permits for livestock grazing. These current authorizations do not conflict with wilderness management. However, motorized equipment is needed to maintain existing livestock water developments and pipelines. There is the potential for extraction of locatable minerals. Mining activity has occurred on adjacent land and exploration drilling has occurred throughout the area. The Galurio Addition Potential Wilderness Area is entirely composed of National Forest System Lands, but there are State and private lands adjacent to the area. The closest private land is approximately a third of a mile from the PWA boundary and could impact the wilderness character of the area.

The Galurio Addition Potential Wilderness Area overall was rated low for availability.

Need for Wilderness

The evaluation criteria shown below indicate how the Galiuro Addition PWA might fit into the National Wilderness Preservation System, which includes all of the 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 ecosystems characteristics.

Wilderness and Non-wilderness Lands in the Vicinity

The Forest Service evaluated comparable public lands within a 100-mile radius of the Potential Wilderness Area, which is assumed to be approximately a day's drive. Within 100 miles of the Galiuro Addition Potential Wilderness Area there are 31 designated wilderness areas totaling about 1.6 million acres (see Table 1 below).

Within 100 miles of the Galiuro Addition Potential Wilderness Area there are 43 non-wilderness areas over 5,000 acres in size that are specially-designated federal or state public lands likely to offer a similar unconfined recreation experience. Of these areas, 4 are wilderness study areas managed by Bureau of Land Management and Forest Service to protect wilderness characteristics; these areas offer a primitive or semi-primitive recreation setting similar to those provided by wilderness. Other similar non-wilderness areas include Inventoried Roadless Areas on National Forest System Lands.

Table 1: Designated Wilderness Within 100 Miles of the Galiuro Addition PWA

Wilderness Area	Acres
Aravaipa Canyon Wilderness	19,700
Baboquivari Peak Wilderness	2,040
Bear Wallow Wilderness	11,080
Blue Range Primitive Area	173,762
Blue Range Wilderness	29,304
Chiricahua National Monument Wilderness	10,290
Chiricahua Wilderness	87,700
Coyote Mountains Wilderness	5,100
Dos Cabezas Mountains Wilderness	11,700
Fishhooks Wilderness	10,500
Four Peaks Wilderness	61,074
Galiuro Wilderness	76,317
Gila Wilderness	558,014
Miller Peak Wilderness	20,228
Mount Baldy Wilderness	7,079
Mount Wrightson Wilderness	25,260
Needle's Eye Wilderness	8,760
North Santa Teresa Wilderness	5,800
Pajarita Wilderness	7,553
Peloncillo Mountains Wilderness	19,440
Pusch Ridge Wilderness	56,933
Redfield Canyon Wilderness	6,600
Rincon Mountain Wilderness	38,590
Saguaro Wilderness	70,905
Salome Wilderness	18,531
Salt River Canyon Wilderness	32,101
Santa Teresa Wilderness	26,780
Sierra Ancha Wilderness	20,850
Superstition Wilderness	159,757
Table Top Wilderness	34,400
White Canyon Wilderness	5,790

Visitor Pressure

In order to consider the degree to which regional population centers are already served by wilderness, the evaluation looked at one metropolitan area (Tucson, Arizona) and three micropolitan areas (Nogales, Safford and Sierra Vista, Arizona) within 100 miles (a day's drive) of the Galiuro Addition Potential Wilderness Area. Tucson and Safford have access to 29 designated wilderness areas within 100 miles, Sierra Vista has 21 designated wilderness areas within 100 miles, and Nogales has 16 designated wilderness areas within 100 miles.

Tucson and Nogales both had an estimated population growth of 11% between 2000 and 2006 and Sierra Vista had an estimated population growth of 8% during that same time period (US Census 2007). Using the population data for 2006, it's estimated that Tucson had only 0.8 acre of designated wilderness per capita, Nogales had 10 acres of designated wilderness per capita, and Sierra Vista had 4 acres of designated wilderness per capita. The increasing population and limited availability of wilderness opportunities suggests that the population trend of these three cities generates a need for more designated wilderness areas.

Unlike the other Arizona cities, the population of Safford, AZ is estimated to have declined 2% between 2000 and 2006 (US Census, 2006). In 2006, it's estimated that Safford had 34 acres of designated wilderness per capita. The declining population and larger availability of wilderness opportunities does not suggest that the population trend of Safford generates a need for more designated wilderness areas.

According to the 2008 National Visitor Use Monitoring Results from data collected in 2001 and 2007, visitation to wilderness areas on the Coronado National Forest dropped 1%. In 2001, annual visitation to designated wilderness areas was estimated at 528,190 visits, approximately 18% of all visits to the Forest. In 2007 the number of estimated visits was 488,500, approximately 17% of all visits to the Forest. Wilderness users on the Coronado NF, both in 2001 and 2007, are predominantly white males between the ages of 30 and 69. The majority of these individuals live in Pima County and mainly within the Tucson metropolitan area. It can be assumed that wilderness use on the Coronado NF will continue to remain at current levels and potentially increase in those areas where the trailheads are easily accessed.

Primitive Sanctuary for Plants and Wildlife

As part of the Forest Plan revision process, the Coronado National Forest has developed a list of species that warrant consideration in the Forest Plan revision. Appendix B displays those species from this list that are known to occur in the Galiuro Addition Potential Wilderness Area. Though all of these species would benefit from reduced disturbance, none require a primitive wilderness environment to survive.

Capacity of Established Wilderness Areas

There are eight existing wilderness areas and three wilderness study areas (WSA) on the Coronado National Forest. The wilderness areas and WSAs range in size from 7,400 acres to 87,700 acres. Accessibility by motor vehicles ranges from easily accessible to remote, hard-to-access wilderness. Trail systems within wilderness areas range from extensive trail systems to

very minimal systems. Visitor use is considered high in the wilderness areas adjacent to the Tucson metropolitan area and includes the Pusch Ridge and Mt. Wrightson Wildernesses. Encounters with other wilderness visitors in both areas are high. For these two areas, there are limited management opportunities to accommodate additional use. The Coronado NF also has wilderness areas that are remote, difficult to access, and where visitor use is considered low. Here, additional demand could be accommodated without management changes.

Wilderness Areas with Similar Landform and Vegetation

Consideration was given to how the landform and ecological condition of the Galiuro Addition Potential Wilderness Area (PWA) might be broadly similar to existing wilderness areas within the National Wilderness Preservation System. All designated Wilderness Areas in Arizona and New Mexico were compared using ecological sections and vegetation communities.

The Galiuro Addition Potential Wilderness Area is in the Basin and Range Section of the Chihuahuan Semi-Desert Province (McNab and Avers 1994). The Basin and Range Section encompasses 24,270 square miles, of which 749 square miles (approximately 3%) occurs in 20 designated wilderness areas.

The Galiuro Addition Potential Wilderness Area includes five of the nine major vegetation communities of the Coronado NF (see Table 2 below). Of these five vegetation communities, the Galiuro Addition PWA would only contribute an additional 0.1% to wilderness in the following vegetations: Interior Chaparral, Madrean Encinal Woodland and Madrean Pine Oak Woodland.

Table 2: Major Vegetation Communities of the Coronado National Forest and Galiuro Addition PWA

Major Vegetation Communities of Coronado NF	Acres within AZ and NM	Acres within Designated Wilderness in AZ and NM	Percent of Designated Wilderness in AZ and NM	Acres within Galiuro Addition PWA	Percent of Galiuro Addition PWA	Percent Addition of Galiuro Addition PWA to Wilderness
Desert Communities	30,049,409	2,957,920	9.8%	0	0.0%	0.0%
Interior Chaparral	3,007,982	347,373	11.5%	1,701	19.6%	0.1%
Madrean Encinal Woodland	5,881,883	429,389	7.3%	4,719	54.4%	0.1%
Madrean Pine Oak Woodland	1,401,126	198,467	14.2%	1,484	17.1%	0.1%
Mixed Conifer Forest	2,005,391	294,655	14.7%	0	0.0%	0.0%
Ponderosa Pine	8,697,795	729,664	8.4%	343	4.0%	0.0%
Riparian Areas	929,779	25,378	2.7%	0	0.0%	0.0%
Semi-desert Grasslands	23,886,097	289,792	1.2%	421	4.9%	0.0%
Spruce Fir Forest	831,285	134,548	16.2%	0	0.0%	0.0%
Grand Total	76,690,747	5,407,188		8,668		

Further evaluation and input from the public will determine if there is a need for recommending the Galiuro Addition Potential Wilderness Area as a new wilderness area.

Next Steps

The Forest Service will collect comments on the Galiuro Addition Potential Wilderness Area evaluation throughout the Plan revision process. Comments on this draft of the Wilderness Evaluation Report should be sent to the Coronado National Forest Supervisor's Office by April 30, 2010. Afterwards, these comments will be incorporated into the wilderness evaluation.

Please share your feedback or comments on this evaluation with us:

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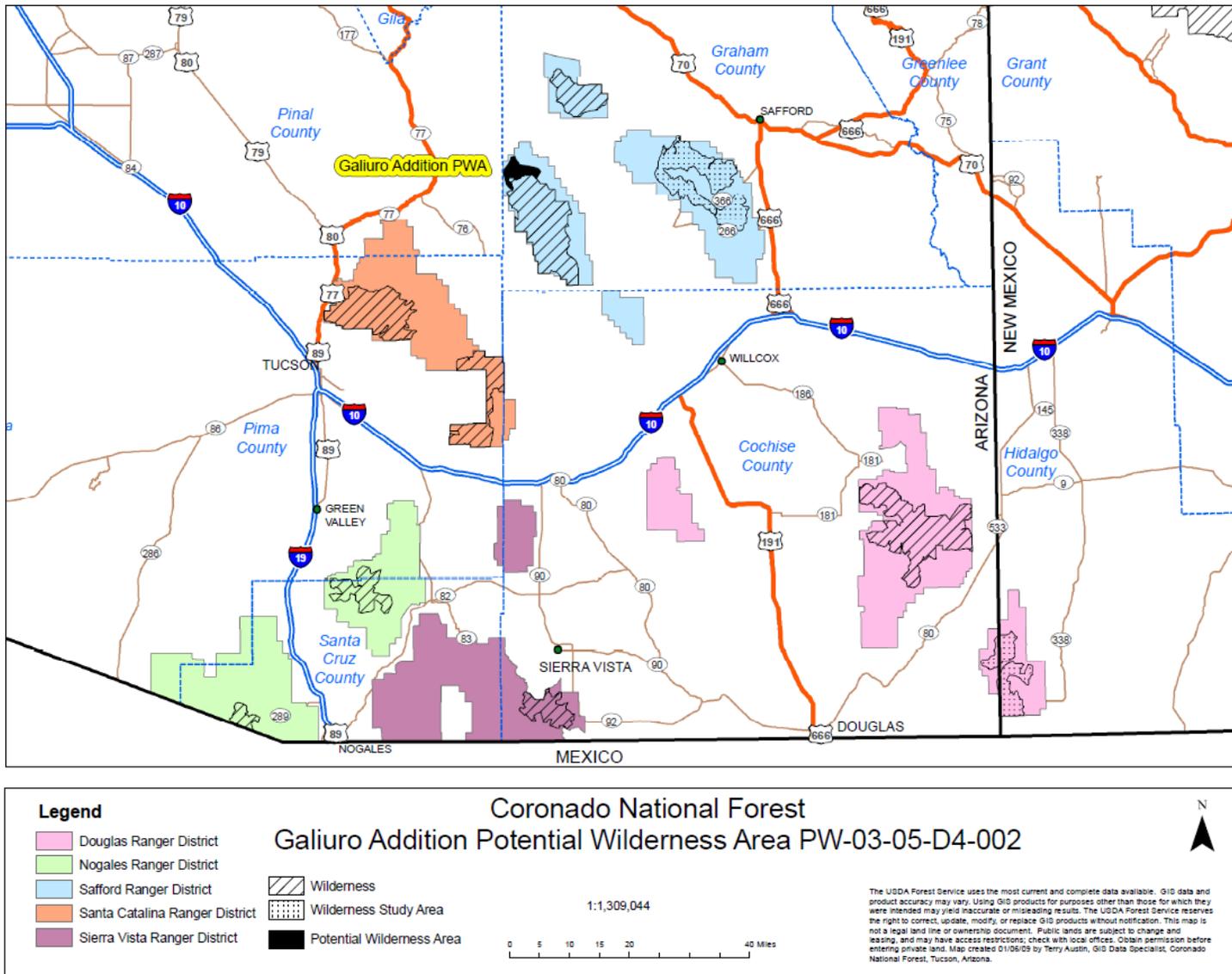
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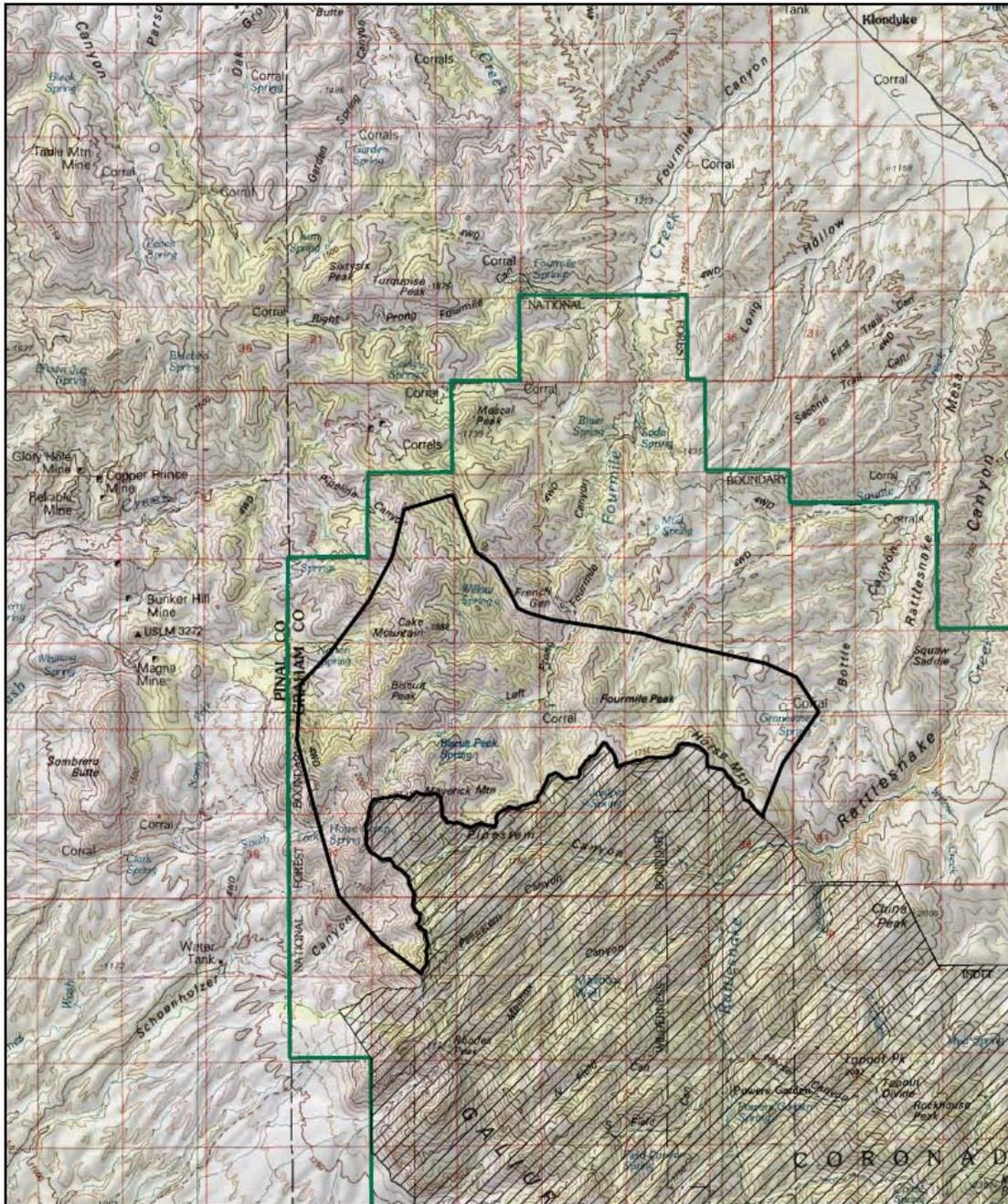
United States Census Bureau. Arizona QuickFacts. Website visited January 2009.
<http://quickfacts.census.gov/qfd/states/04000.html>

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Map 1: Galiuro Addition Potential Wilderness Area Location Map



Map 2: Galiuro Addition Potential Wilderness Area



Coronado National Forest
 Galiuro Addition Potential Wilderness Area
 PW-03-05-D4-002

The USDA Forest Service uses the most current and complete data available. GIS data and product accuracy may vary. Using GIS products for purposes other than those for which they were intended may yield inaccurate or misleading results. The USDA Forest Service reserves the right to correct, update, modify, or replace GIS products without notification. This map is not a legal land line or ownership document. Public lands are subject to change and leasing, and may have access restrictions; check with local offices. Obtain permission before entering private land. Map created 01/08/09 by Terry Austin, GIS Data Specialist, Coronado National Forest, Tucson, Arizona.



Legend

- PW-03-05-D4-002
- Existing Wilderness
- Forest Boundary



Appendix A: The Wilderness Evaluation Process

The Wilderness Act of 1964 defines wilderness as:

A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this chapter an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

The Forest Service directives (FSH 1909.12, Chapter 70) describe the process and documentation for identifying and evaluating potential wilderness in the National Forest System.

Inventory

The Galiuro Addition Potential Wilderness Area is one of ten potential wilderness areas on the Coronado National Forest based on criteria in FSH 1909.12, Chapter 71. The entire Coronado National Forest was evaluated during the inventory phase and eliminated based on the criteria for wilderness inventories on national forests.

Capability

In 2008, an interdisciplinary planning team conducted a preliminary wilderness evaluation of all potential wilderness areas on the Coronado National Forest. Documents from this evaluation qualitatively described capability characteristics such as size (acres), access, remoteness, natural integrity, apparent naturalness, solitude and other values. The process included ranking the potential wilderness area as having high, medium or low wilderness potential based on capability factors included in the criteria in FSH 1909.12, Chapter 70 (2007).

Availability

In 2008, an interdisciplinary team ranked the area as high, medium or low for wilderness availability, based on a set of factors consistent with guidelines in the 2007 directives.

Need

FSH 1909.12, Chapter 72.31 requires that the evaluation of need consider, at a minimum the following factors:

1. The location, size, and type of other wilderness areas 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.

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

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

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

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

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, sub-regional and regional needs.

These directives also require the Forest Service to demonstrate need through the public involvement process, including input on the evaluation report. Public participation begins March 3, 2010.

Appendix B: Species List for the Galiuro Addition PWA

Scientific Name	Common Name	Threatened or Endangered
<i>Accipiter gentilis</i>	Northern Goshawk	
<i>Agastache rupestris</i>	Thread-leaf Giant-hyssop	
<i>Antilocapra americana</i>	Pronghorn	
<i>Arceuthobium blumeri</i>	Southwestern White Pine Dwarf-mistletoe	
<i>Aspidoscelis burti stictogramma</i>	Giant Spotted Whiptail	
<i>Astragalus allochrous</i> var. <i>playanus</i>	Halfmoon Milk-vetch	
<i>Bouteloua rothrockii</i>	Rothrock's Gramma	
<i>Carex ultra</i>	Cochise Sedge	
<i>Catostomus clarkii</i>	Desert Sucker	
<i>Draba petrophila</i> var. <i>viridis</i>	Rock Whitlow-grass	
<i>Eriogonum arizonicum</i>	Arizona Wild-buckwheat	
<i>Eumops perotis californicus</i>	California Bonneted Bat	
<i>Falco peregrinus anatum</i>	American Peregrine Falcon	
<i>Gopherus agassizii</i>	Desert Tortoise ("Sonoran" population)	
<i>Hackelia ursina</i>	Chihuahuan Stickseed	
<i>Haliaeetus leucocephalus</i>	Bald Eagle	X
<i>Hedeoma dentata</i>	Arizona False Pennyroyal	
<i>Heuchera glomerulata</i>	Chiricahua Mountain Alumroot	
<i>Kinosternon sonoriense</i>	Sonoran Mud Turtle	
<i>Lasiurus blossevillii</i>	Western Red Bat	
<i>Lasiurus xanthinus</i>	Western Yellow Bat	
<i>Leptonycteris yerbabuenae</i>	Lesser Long-nosed Bat	X
<i>Macrotus californicus</i>	California Leaf-nosed Bat	
<i>Meda fulgida</i>	Spikedace	X
<i>Melanoplus desultorius</i>	Red Whiskers Grasshopper	
<i>Meleagris gallopavo mexicana</i>	Gould's Turkey	
<i>Nyctinomops femorosaccus</i>	Pocketed Free-tailed Bat	
<i>Odocoileus hemionus</i>	Mule Deer	
<i>Odocoileus virginianus couesi</i>	Coues' White-tailed Deer	
<i>Ovis canadensis mexicana</i>	Desert Bighorn Sheep	
<i>Palaemnema domina</i>	Desert Shadowdamsel	
<i>Patagioenas fasciata</i>	Band-tailed Pigeon	
<i>Penstemon discolor</i>	Catalina Beardtongue	
<i>Perityle dissecta</i>	Slimlobe Rockdaisy	
<i>Phlox tenuifolia</i>	Santa Catalina Mountains Phlox	
<i>Potentilla subviscosa</i> var. <i>subviscosa</i>	Navajo Cinquefoil	
<i>Puma concolor</i>	Mountain Lion	
<i>Rana chiricahuensis</i>	Chiricahua Leopard Frog	X
<i>Rana yavapaiensis</i>	Lowland Leopard Frog	

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<i>Rhinichthys osculus</i>	Speckled Dace	
<i>Salvia amissa</i>	Catalina Mountain Sage	
<i>Sonorella galiuensis</i>	Galiuro Talusssnail	
<i>Strix occidentalis lucida</i>	Mexican Spotted Owl	X
<i>Terrepenne ornata luteola</i>	Desert Box Turtle	
<i>Tiaroga (=Rhinichthys) cobitis</i>	Loach Minnow	X
<i>Ursus americana</i>	Black Bear	