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Forest
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Southwestern
Region

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Coronado National Forest Draft Samaniego Ridge Potential Wilderness Area Evaluation Report PW-03-05-D5-001

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 Samaniego Ridge 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 Santa Catalina 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 Samaniego Ridge 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 Samaniego Ridge Potential Wilderness Area (Samaniego Ridge 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 Samaniego Ridge Potential Wilderness Area encompasses 13,346 acres. This area is located in the Santa Catalina Mountains, which is part of the Santa Catalina Ranger District of the Coronado National Forest that is adjacent to the Tucson metropolitan area in southeastern Arizona.

Vicinity, Surroundings and Access: The Samaniego Ridge Potential Wilderness Area (PWA) is approximately 18 miles north of Tucson, Arizona, within the Santa Catalina Ranger District. The PWA is in the Samaniego Ridge/Cañada Del Oro area on the northwest side of the Santa Catalina Mountains. The Pusch Ridge Wilderness Area is located nearby, as well as Mount Lemmon Ski Valley and Catalina State Park.

State Highway 77 connects the Tucson metropolitan area to Oro Valley, Catalina, Oracle Junction and Oracle. This highway is within close proximity to the Santa Catalina Mountains and the west side of the PWA. State Highway 77 also provides motorized access to Catalina State Park, which is located on National Forest System (NFS) lands. Catalina State Park provides motorized access to Sutherland Trailhead (Forest Trail 6). Sutherland Trail provides non-motorized trail access into Cargodera Canyon and the Pusch Ridge Wilderness Area. Sutherland Trail connects to Cargodera Canyon Road (Forest Road 643), Cañada Del Oro Trail (Forest Trail 4) and Mount Lemmon Trail (Forest Trail 5). Sutherland Trail traverses within a couple hundred feet of the southern end of the PWA. A park entrance fee is required to access the Sutherland Trail from Catalina State Park.

Golder Ranch Road (Pima County-maintained) provides motorized access from State Highway 77 across private and State Trust lands to Cargodera Canyon Road (Forest Road 643) and Lago Del Oro Parkway. Cargodera Canyon Road provides motorized access for high-clearance 4-wheel-drive vehicles to within approximately ½ mile of the PWA. Lago Del Oro Parkway (Pima/Pinal County-maintained) provides motorized access from Golder Ranch Road to Charouleau Gap Road (Forest Road 736). Charouleau Gap Road provides motorized access for high-clearance 4-wheel-drive vehicles to Deer Park Tank Road (NFSR 4432), Samaniego Ridge Trail (Forest Trail 7) and Cañada Del Oro Trail (Forest Trail 4). Charouleau Gap Road and Deer Park Tank Road both come within approximately ½ mile of the PWA. The Arizona Game and Fish Department has a perpetual public recreational right-of-way for the portion of Charouleau Gap Road across State Trust land from Lago Del Oro Parkway to the National Forest boundary. Samaniego Trail provides non-motorized trail access from Charouleau Gap Road through the heart of the PWA along Samaniego Ridge to Cañada Del Oro Trail and Sutherland Trail. Cañada Del Oro Trail provides non-motorized trail access from Charouleau Gap Road through the heart of the PWA along Cañada Del Oro to Red Ridge Trailhead (Forest Trail 2) and Samaniego Trail.

Control Road (Forest Road 38) is the primary motorized access route to the north side of the Santa Catalina Mountains from State Highway 77 and the unincorporated community of Oracle to General Hitchcock Highway (Forest Road 833) and the unincorporated community of

Summerhaven. Control Road also provides motorized access to Oracle Ridge Trailhead (Forest Trail 1). Oracle Ridge Trail provides non-motorized trail access to Catalina Camp Trail (Forest Trail 401) and the unincorporated community of Oracle. Catalina Camp Trail provides non-motorized trail access to Red Ridge Trailhead.

General Hitchcock Highway is the primary motorized access route to the south side of the Santa Catalina Mountains from the Tucson metropolitan area to the unincorporated community of Summerhaven. General Hitchcock Highway connects to Ski Run Road (Forest Road 11). Ski Run Road provides motorized access to Red Ridge Trailhead, Mount Lemmon Ski Valley, Mount Lemmon Trailhead (Forest Trail 5) and the top of Mt. Lemmon. Mount Lemmon Trail is the primary non-motorized trail access to Sutherland Trail and Samaniego Trail.

There is no motorized road access into the PWA. Although there appears to be adequate motorized access to the NFS lands near the PWA, the closest motorized road access is approximately ½ mile to the west and north sides of the PWA and can only be traveled by high-clearance 4-wheel-drive vehicles. It appears non-motorized trail access is adequate.

Geography and Topography: Located along the western flank of the Santa Catalina Mountains, the Samaniego Ridge Potential Wilderness Area (PWA) occupies the headwaters of Cañada del Oro Wash and straddles the crest of Samaniego Ridge. Covering an area of 13,346 acres, this PWA rises from a low point of 3,280 feet above sea level along the western flank of the range to a maximum elevation of approximately 8,686 feet at an unnamed peak along the southeastern boundary of the PWA. This PWA is located entirely within the Santa Catalina Mountains Unit of the Santa Catalina Ranger District, Coronado National Forest (CNF).

The northwest-trending Santa Catalina-Rincon Mountains structural block is typical of the Southern Basin and Range Province in southeastern Arizona. The PWA is located at the western edge of the Mexican Highlands Sub-province from the Sonoran Desert Sub-province. It is bounded by the Santa Cruz River Basin to the southwest and the San Pedro River Valley to the northeast. The Santa Catalina Range is underlain by a large metamorphic core complex, which extends into the Rincon Mountains to the southeast. The mountain is underlain by granitic gneiss, Precambrian Oracle Granite, Wilderness Granite and a very large intrusive body of Eocene age. These rocks were subjected to high temperatures and great pressures prior to being rapidly uplifted during middle Tertiary time to form a northwest-elongated, arcuate domal structure. Intrusive and highly metamorphosed rocks within its core are exposed along the west-southwestern flanks and in central portions of the Santa Catalina and Rincon Mountains. Located along the limbs of this domal structure, variably metamorphosed, folded and faulted remnants of late Precambrian to early Cretaceous sediments are preserved along the northeastern and eastern flanks of the Santa Catalina and Rincon Mountains and the southwestern flank of the Rincon Mountains. The Samaniego Ridge PWA is located along the steep, precipitous western flank of the Santa Catalina Mountains, where a major range-bounding fault has terminated the range. This area is almost entirely underlain by the Catalina Granite, a large stock of late Oligocene age.

Appearance and Vegetation: The vegetation consists of over 70% 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 toumeyi*). 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*). About half of this area has recently been severely burned and is recovering as grassland, with many tree species sprouting.

The remaining area is divided between mixed conifer at the highest elevations and shrub mixes at the lowest elevations. Riparian vegetation communities occupy most canyon bottoms, including Cañada del Oro. The dominant trees in the mixed conifer areas are Douglas-fir (*Pseudotsuga menziesii*), ponderosa pine (*Pinus ponderosa*), southwestern white pine (*Pinus strobiformis*) and lesser amounts of white fir (*Abies concolor*). The shrub mix consists of “evergreen” shrubs such as cacti [barrels (*Ferocactus spp.*), hedgehogs (*Echinocactus spp.*), prickly-pear and cholla (*Opuntia spp.*), etc.], agaves [desert spoon (*Dasylyron wheeleri*), agaves and shin-dagger (*Agave spp.*)], beargrass (*Nolina microcarpa*), soap-tree yucca (*Yucca elata*), desert broom (*Baccharis saprothroides*) and Mearns sumac (*Rhus choriophylla*). Deciduous shrubs include ocotillo (*Foquieria splendens*), catclaw mimosa (*Mimosa biuncifera*), acacias (*Acacia spp.*), little-leaf sumac (*Rhus microphylla*), wolfberry (*Lycium spp.*), limber bush (*Jatropha cardiophylla*), palo verde (*Cercidium spp.*), velvet mesquite (*Prosopis velutina*), Wright silk-tassel (*Garrya wrightii*), jojoba (*Simmondsia spp.*), barberry (*Berberis spp.*), desert ceanothus (*Ceanothus greggii*), mountain mahogany (*Cercocarpus spp.*) and creosote (*Larrea tridentata*). Sub-shrubs such as false mesquite (*Calliandra eriophylla*) and snakeweed (*Gutierrezia sarothrae*) are also present. 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*) and yewleaf willow (*Salix taxifolia*).

All woodlands and shrub mixes have been grazed for over 100 years, and introduced species, particularly Lehmann lovegrass (*Eragrostis lehmanniana*), are common.

Current Uses

Recreation: The primary recreation uses include hiking and dispersed camping. Other uses include horseback riding, hunting, rock-climbing and bird-watching. The Arizona Trail and a potentially eligible Wild and Scenic River pass through this area. Most of the area is Recreation Opportunity Spectrum (ROS) class Primitive, with smaller areas of Semi-Primitive Non-Motorized and Semi-Primitive Motorized.

Wildlife, Fish, and Rare Plants: During the Forest Plan Revision process the Coronado National Forest developed a list of species to be evaluated for potential risks to population viability. In the Santa Catalina Mountains, there are 96 species on the viability evaluation list, including four Threatened or Endangered species (see Appendix B). Noteworthy species include the federally listed Gila chub, plus a number of species found in few other mountain ranges of the Coronado NF, such as the Pima dancer, Sabino dancer, *Tinodes parvulus* (a caddisfly), Indian false-mallow, Catalina burstwort, California satintail and the endemic pungent talussnail. These large (for the Coronado) mountain ranges are well explored and biologically known from numerous research programs from the nearby University of Arizona and elsewhere. The high elevational range (from Sonoran Desert to mixed conifer forest) and perennial aquatic and riparian area habitats are responsible for much of the observed biological diversity.

Range: There are two grazing allotments within the Samaniego Ridge Potential Wilderness Area: Canada Del Oro and Santa Catalina. Both allotments are active with valid permitted uses. The range improvements within the PWA include fences, corral, dams, water developments and a cattleguard.

Water: The watershed represented in this PWA is Canada del Oro (HUC 1505030109). There are seven known springs developed for livestock and wildlife use within the PWA. Cañada del Oro is considered to be perennial water. No water quality data has been collected within the potential wilderness.

Minerals: The Samaniego Ridge PWA is located immediately west of the Marble Peak mining district, which straddles Oracle Ridge. Copper-bearing mineralization at this locality is hosted by altered Paleozoic limestone located adjacent to intrusive rocks of the early Paleocene Leatherwood stock. Approximately 1.2 million tons of copper ore, averaging about 1.8% copper, were produced from a small underground operation at the Oracle Ridge Mine from 1991 until early 1996. An estimated resource of approximately 9.1 million tons, averaging approximately 2.3% copper, is reported to still remain at this site. No known mineral occurrences are present within the Samaniego Ridge PWA.

The absence of the Leatherwood stock and sediments found at Oracle Ridge and the uniformly barren nature of the exposed Catalina Granite are not favorable for mineral occurrences in the PWA. This makes the mineral potential of this area quite low.

Heritage Resources: Previous archaeological research in this Potential Wilderness Area has been minimal. No archaeological sites have been recorded in this area.

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 Aspen Fire burned a majority of this area in 2003.

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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 Samaniego Ridge Potential Wilderness Area possesses a moderate degree of naturalness. The ruggedness of this PWA has allowed it to retain a semi-primitive setting. The diversity of vegetation within the PWA boundary ranges from desert scrub to pine forests. The area is habitat for threatened and endangered species.

This area of the Santa Catalina Mountains does not have perennial rivers or streams and there are no known water quality issues. However, the Cañada Del Oro riparian area is heavily impacted by four-wheel-drive vehicles. About half the area is affected by light pollution, due to the proximity of the area to the Tucson area. Features that detract from the area's wilderness character include the presence of invasive, non-native species in the riparian area, including Lehmann lovegrass, bullfrogs and Boer's lovegrass.

Undeveloped

The Samaniego Ridge Potential Wilderness Area has obvious evidence of human activity. The area has developments throughout the area, including spring developments, fences and pipelines.

Opportunities for Solitude

A person could find an experience of solitude, serenity and self-reliance within this Potential Wilderness Area. Recreational opportunities include hiking, backpacking, hunting and challenging rock-climbing. However, the close proximity of the area to Oro Valley, Arizona detracts from the feeling of solitude and isolation from civilization while recreating within the area.

Special Features

The unique rock formations are important as a wilderness characteristic. The area has a history of mining, which provides opportunities for historic research. This area is known to have had populations of threatened and endangered species.

Manageability

The Samaniego Ridge Potential Wilderness Area has livestock grazing that causes some resource conflicts. Given this condition, this area holds some challenges in managing it for wilderness characteristics.

The Samaniego Ridge 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 Samaniego Ridge Potential Wilderness Area, most of the current recreational uses could continue if the area was designated as wilderness. However, the current trails and signs conflict with wilderness requirements. The trails within the area are extensively used and require continuous maintenance, which is currently done with the use of chainsaws. The Cañada Del Oro watersheds within the area are in need of restoration. There are water impoundments for livestock at the low elevations and for wildlife at the high elevations that require maintenance. The area is in need of vegetation restoration activities for big horn sheep habitat that may require the use of mechanized equipment. There is also an annual wildlife survey done in the area that is conducted with the use of helicopters. This area is committed through permits for livestock grazing and there are mining claims. Some activities associated with these current authorizations conflict with wilderness management. The area has had copper mining in the past and there is the potential for extraction of locatable minerals. The Samaniego Ridge Potential Wilderness Area is composed entirely of National Forest System lands, as is the adjacent land. The closest private land is approximately two-thirds of a mile from the Potential Wilderness Area boundary and could impact the wilderness character of the area.

The Samaniego Ridge Potential Wilderness Area overall was rated low for availability.

Need for Wilderness

The evaluation criteria shown below indicate how the Samaniego Ridge 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. Assumptions and methodology for this evaluation are briefly summarized in this report.

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 Samaniego Ridge Potential Wilderness Area, there are 28 designated wilderness areas, totaling about 917,000 acres (see Table 1 below).

Within 100 miles of the Samaniego Ridge Potential Wilderness Area there are 27 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, one is a wilderness study area managed by the Forest Service to protect wilderness characteristics, which offers 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.

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Table 1: Designated Wilderness Within 100 Miles of the Samaniego Ridge PWA

Wilderness Area	Acres
Aravaipa Canyon Wilderness	19,700
Baboquivari Peak Wilderness	2,040
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
Miller Peak Wilderness	20,228
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
Sierra Estrella Wilderness	14,400
South Maricopa Mountains Wilderness	60,100
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 two metropolitan areas (Tucson and Phoenix, Arizona) and three micropolitan areas (Nogales, Safford and Sierra Vista, Arizona) within 100 miles (a day's drive) of the Samaniego Ridge Potential Wilderness Area. Phoenix has access to 49 designated wilderness areas within 100 miles, 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.

Between 2000 and 2006, the estimated population growth for Phoenix was 19%, Tucson and Nogales both had an estimated population growth of 11%, and Sierra Vista had an estimated population growth of 8% (US Census 2007). Using the population data for 2006, it's estimated that Phoenix had only 0.6 acre of designated wilderness per capita, Tucson had 1.2 acres 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 four 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 36 acres of designated wilderness per capita. The declining population and larger availability of wilderness opportunities do 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 viability evaluation. Appendix B displays those species from this list that are known to occur in the Samaniego Ridge Potential Wilderness Area. Though all of these species would benefit from reduced disturbance, none require a primitive wilderness environment to survive.

Capacity of Established Wildernesses

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 Samaniego Ridge Potential Wilderness Area 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 Samaniego Ridge 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%) occur in 20 designated wilderness areas.

The Samaniego Ridge Potential Wilderness Area includes seven of the nine major vegetation communities of the Coronado NF (see Table 2 below). Of these seven vegetation communities, the Samaniego Ridge PWA would only contribute an additional 0.1% to wilderness in the following vegetations: Interior Chaparral, Madrean Encinal Woodland and Riparian Areas. In addition, the Samaniego Ridge PWA would contribute an additional 0.3% to wilderness in Madrean Pine Oak Woodland.

Table 2: Major Vegetation communities of the Coronado National Forest and Samaniego Ridge 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 Samaniego Ridge PWA	Percent of Samaniego Ridge PWA	Percent Addition of Samaniego Ridge PWA to Wilderness
Desert Communities	30,049,409	2,957,920	9.8%	1,136	8.5%	0.0%
Interior Chaparral	3,007,982	347,373	11.5%	291	2.2%	0.1%
Madrean Encinal Woodland	5,881,883	429,389	7.3%	5,297	39.7%	0.1%
Madrean Pine Oak Woodland	1,401,126	198,467	14.2%	5,089	38.1%	0.3%
Mixed Conifer Forest	2,005,391	294,655	14.7%	104	0.8%	0.0%
Ponderosa Pine	8,697,795	729,664	8.4%	0	0.0%	0.0%
Riparian Areas	929,779	25,378	2.7%	870	6.5%	0.1%
Semi-desert Grasslands	23,886,097	289,792	1.2%	559	4.2%	0.0%
Spruce Fir Forest	831,285	134,548	16.2%	0	0.0%	0.0%
Grand Total	76,690,747	5,407,188		13,346		

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

Next Steps

The Forest Service will collect comments on this Potential Wilderness Area Evaluation Report throughout the Forest 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. Comments received will be incorporated into the wilderness evaluation.

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

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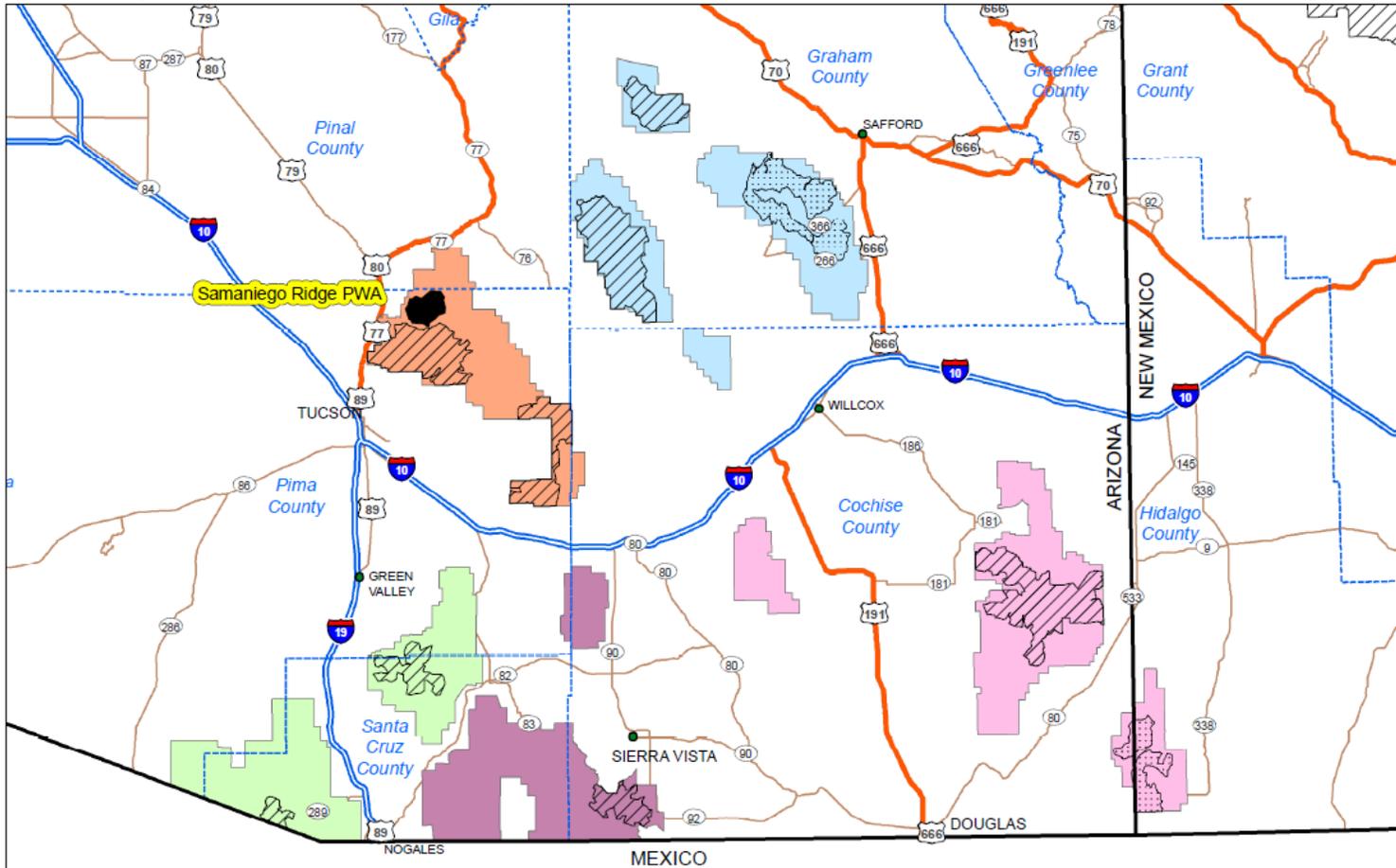
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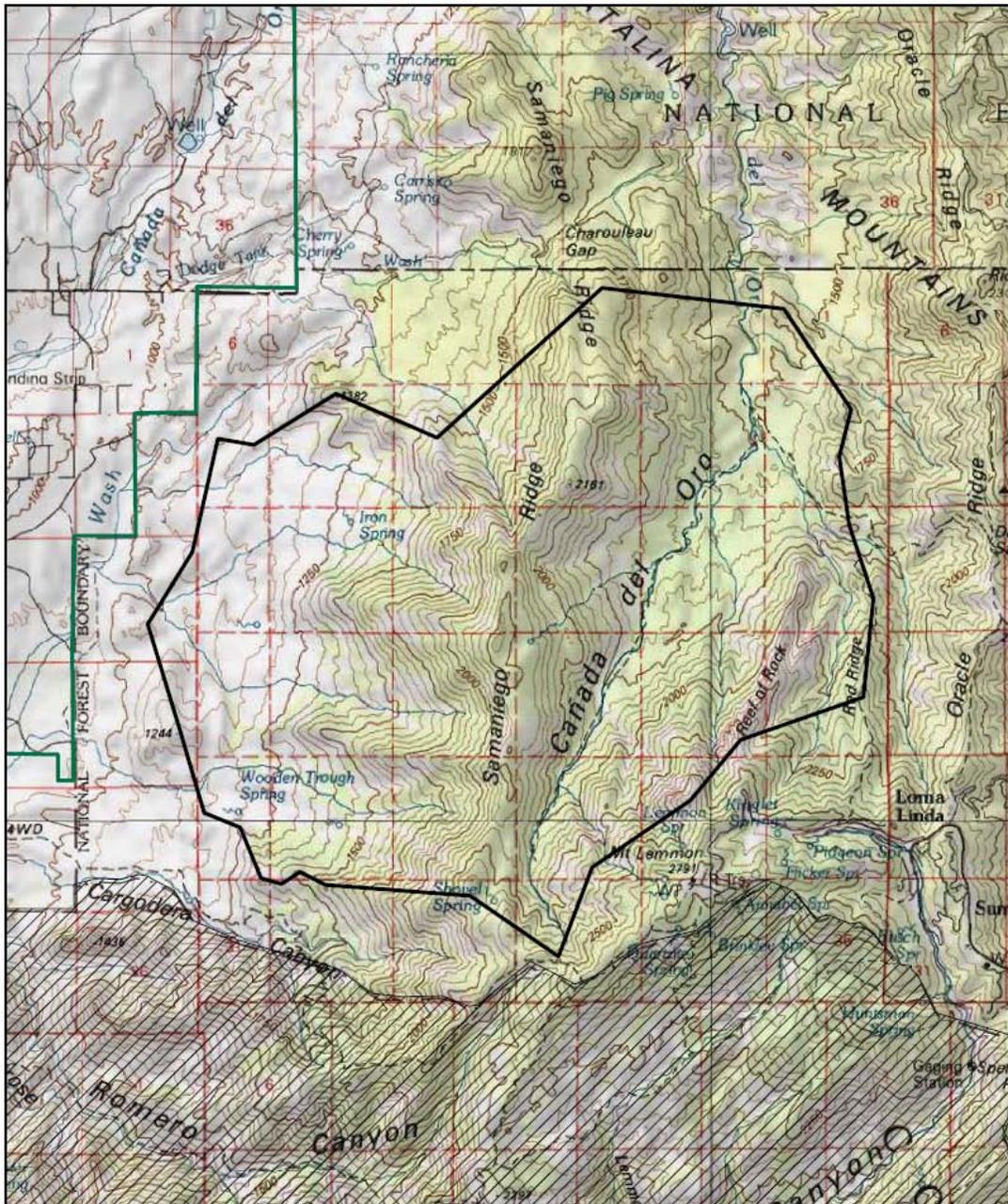
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Map 1: Samaniego Ridge Potential Wilderness Area Location Map



Legend		Coronado National Forest		
<ul style="list-style-type: none"> Douglas Ranger District Nogales Ranger District Safford Ranger District Santa Catalina Ranger District Sierra Vista Ranger District 	<ul style="list-style-type: none"> Wilderness Wilderness Study Area Potential Wilderness Area 	<p>Samaniego Ridge Potential Wilderness Area PW-03-05-D5-001</p> <p>1:1,309,044</p> <p>0 5 10 15 20 40 Miles</p>		

Map 2: Samaniego Ridge Potential Wilderness Area



Coronado National Forest
 Samaniego Ridge Potential Wilderness Area
 PW-03-05-D5-001

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-D5-001
-  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 Handbook (FSH) 1909.12, Chapter 70 describes the process and documentation for identifying and evaluating potential wilderness in the National Forest System.

Inventory

The Samaniego Ridge 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 Samaniego Ridge PWA

Scientific Name	Common Name	Threatened or Endangered
<i>Abutilon parishii</i>	Parish's Abutilon	
<i>Acacia millefolia</i>	Milfoil Acacia	
<i>Accipiter gentilis</i>	Northern Goshawk	
<i>Agave schottii</i> var. <i>treleasei</i>	Schott's Agave	
<i>Agosia chrysogaster</i>	Longfin Dace	
<i>Allium gooddingii</i>	Goodding's Onion	
<i>Ameletus falsus</i>	False Ameletus Mayfly	
<i>Anoda abutiloides</i>	False Indian-mallow	
<i>Antilocapra americana</i>	Pronghorn	
<i>Arabis tricornuta</i>	Rincon Mountain Rockcress	
<i>Arceuthobium blumeri</i>	Southwestern White Pine Dwarf-mistletoe	
<i>Argia sabino</i>	Sabino Dancer	
<i>Aspidoscelis burti stictogramma</i>	Giant Spotted Whiptail	
<i>Astragalus allochrous</i> var. <i>playanus</i>	Halfmoon Milk-vetch	
<i>Bouteloua eludens</i>	Santa Rita Gramma	
<i>Bouteloua parryi</i>	Parry's Gramma	
<i>Bouteloua rothrockii</i>	Rothrock's Gramma	
<i>Choeronycteris mexicana</i>	Mexican Long-tongued Bat	
<i>Cynanchum wigginsii</i> (= <i>Metastelma mexicanum</i>)	Narrow-leaf (Wiggins) Swallow-wort	
<i>Draba helleriana</i> var. <i>bifurcata</i>	Heller's Whitlow-grass	
<i>Draba petrophila</i> var. <i>viridis</i>	Rock Whitlow-grass	
<i>Drymaria effusa</i> var. <i>effusa</i>	Pinewood Drymary	
<i>Empidonax fulvifrons pygmaeus</i>	Northern Buff-breasted Flycatcher	
<i>Eryngium sparganophyllum</i>	Arizona Eryngo	
<i>Escobaria vivipara</i> var. <i>bisbeeana</i>	Bisbee's Pincushion Cactus	
<i>Eumops perotis californicus</i>	California Bonneted Bat	
<i>Falco peregrinus anatum</i>	American Peregrine Falcon	
<i>Gila intermedia</i>	Gila Chub	X
<i>Glaucidium brasilianum cactorum</i>	Cactus Ferruginous Pygmy-owl	
<i>Gopherus agassizii</i>	Desert Tortoise ("Sonoran" population)	
<i>Graptopetalum bartramii</i>	Patagonia Mountain Leather-petal	
<i>Hackelia ursina</i>	Chihuahuan Stickseed	
<i>Haliaeetus leucocephalus</i>	Bald Eagle	X
<i>Hedeoma dentata</i>	Arizona False Pennyroyal	
<i>Hermannia pauciflora</i>	Santa Catalina Burstwort	
<i>Heuchera glomerulata</i>	Chiricahua Mountain Alumroot	
<i>Hexaletris spicata</i> var. <i>arizonica</i>	Crested Coralroot	
<i>Hieracium rusbyi</i>	Rusby's Hawkweed	
<i>Idionycteris phyllotis</i>	Allen's Big-eared Bat	
<i>Imperata brevifolia</i>	California Satintail	

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<i>Kinosternon sonoriense</i>	Sonoran Mud Turtle	
<i>Lasiurus xanthinus</i>	Western Yellow Bat	
<i>Leptonycteris yerbabuenae</i>	Lesser Long-nosed Bat	X
<i>Lupinus neomexicanus</i>	New Mexico Lupine	
<i>Macromeria viridiflora</i> var. <i>thurberi</i>	Giant-trumpets	
<i>Macrotus californicus</i>	California Leaf-nosed Bat	
<i>Mammillaria heyderi</i> var. <i>macdougalii</i>	Little Nipple Cactus	
<i>Mammillaria mainiae</i>	Main's Nipple-cactus	
<i>Manihot davisiae</i>	Arizona Manihot	
<i>Mannia californica</i>		
<i>Margaranthus solanaceus</i>	Netted Globeberry	
<i>Melanoplus desultorius</i>	Red Whiskers Grasshopper	
<i>Meleagris gallopavo mexicana</i>	Gould's Turkey	
<i>Muhlenbergia dumosa</i>	Bamboo Muhly	
<i>Muhlenbergia elongata</i> (=M. <i>xerophila</i>)	Sycamore Muhly	
<i>Muhlenbergia palmeri</i> (=M. <i>dubioides</i>)	Southwestern Muhly	
<i>Notholaena lemmonii</i>	Lemmon's Cloak-fern	
<i>Nothoscordum texanum</i>	Texas False-garlic	
<i>Nyctinomops femorosaccus</i>	Pocketed Free-tailed Bat	
<i>Odocoileus hemionus</i>	Mule Deer	
<i>Odocoileus virginianus couesi</i>	Coues' White-tailed Deer	
<i>Opuntia phaeacantha</i> var. <i>laevis</i>	New Mexico Prickly-pear	
<i>Ovis canadensis mexicana</i>	Desert Bighorn Sheep	
<i>Patagioenas fasciata</i>	Band-tailed Pigeon	
<i>Penstemon discolor</i>	Catalina Beardtongue	
<i>Penstemon superbus</i>	Superb Beardtongue	
<i>Perityle dissecta</i>	Slimlobe Rockdaisy	
<i>Phaseolus supinus</i>	Supine Bean	
<i>Phlox tenuifolia</i>	Santa Catalina Phlox	
<i>Phoradendron bolleanum</i> ssp. <i>pauciflorum</i>	Rough Mistletoe	
<i>Pinaropappus roseus</i> var. <i>foliosus</i>		
<i>Plagiobothrys pringlei</i>	Pringle's Popcorn-flower	
<i>Potentilla subviscosa</i> var. <i>subviscosa</i>	Navajo Cinquefoil	
<i>Potentilla thurberi</i> var. <i>thurberi</i>	Thurber's Cinquefoil	
<i>Puma concolor</i>	Mountain Lion	
<i>Rana yavapaiensis</i>	Lowland Leopard Frog	
<i>Rhamnus crocea</i> ssp. <i>pilosa</i>	Redberry Buckthorn	
<i>Salvia amissa</i>	Catalina Mountain Sage	
<i>Samolus vagans</i>	Chiricahua Mountain Brookweed	
<i>Sciurus arizonensis</i>	Arizona Gray Squirrel	
<i>Scutellaria tessellata</i>	Huachuca Mountains Skullcap	
<i>Siphonoglossa longiflora</i>	Long-flower Tuber-tongue	
<i>Sisyrinchium arizonicum</i>	Arizona Blue-eyed-grass	
<i>Sisyrinchium cernuum</i>	Nodding Blue-eyed Grass	
<i>Sisyrinchium longipes</i>	Timberland Blue-eye-grass	
<i>Sonorella odorata</i>	Pungent Talussnail	

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<i>Speyeria nokomis coerulescens</i>	Bluish Fritillary	
<i>Strix occidentalis lucida</i>	Mexican Spotted Owl	X
<i>Taenionema jacobii</i>	A Stonefly	
<i>Terrepene ornata luteola</i>	Desert Box Turtle	
<i>Thelypteris puberula</i> var. <i>sonorensis</i>	Aravaipa Woodfern	
<i>Tumamoca maddougali</i>	Tumamoc Globe-Berry	
<i>Ursus americana</i>	Black Bear	
<i>Viguiera dentata</i> var. <i>lancifolia</i>	Sunflower Golden-eye	
<i>Viola umbraticola</i> var. <i>glaberrima</i>	Ponderosa Violet	
<i>Woodsia phillipsii</i>	Phillips' Cliff Fern	

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