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Coconino National Forest

Potential Wilderness Area Evaluation Report

Information that has been updated since the July 2010 Draft has been highlighted in Green. When the section header is in Green, the entire contents are new information.

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 potential wilderness areas.

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 areas fit into the National Wilderness Preservation System at the regional level. This report offers data that helps the Forest Service understand social and ecological sources that might generate need for additional wilderness; 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 if you would like to share your comments or other input, please send them to Coconino National Forest, Attn: Forest Plan Revision Team, 1824 S Thompson St., Flagstaff, AZ 86001 or email Coconino_forest_plan_revision_team@fs.fed.us.

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Introduction

As part of the revision of the Coconino National Forest's Land and Resource Management Plan (Forest Plan or Plan), the Forest Service has prepared this draft potential wilderness evaluation report.

The Forest Service must provide plan direction for the management of designated wilderness and primitive areas (Section 219.18 of the 1982 Planning Rule provisions). Completion of a potential wilderness inventory and evaluation is an essential step in the plan revision process. The Forest Service must evaluate all lands that meet the inventory criteria for potential wilderness during plan revision. The process for identifying and evaluating potential wilderness is outlined in Forest Service Handbook (FSH) 1909.12 Chapter 70. This process is used by the Forest Service to determine whether areas are to be recommended for wilderness designation by Congress.

The first step in the evaluation of potential wilderness is to identify and inventory all areas within National Forest System (NFS) lands that satisfy the definition of wilderness found in section 2(c) of the 1964 Wilderness Act and meet the inventory criteria from the Forest Service Handbook (See Appendix A).

The application of the inventory criteria relies on local knowledge and judgment regarding unique, site-specific conditions of each area being considered for placement on the inventory of potential wilderness. Criteria used in this step include meeting minimum size requirements and the absence of forest roads (FSH 1909.12 Ch. 71.1) or other permanently authorized roads.

Areas that met the criteria for inventory must fit within the guidelines described in FSH 1909.12 Chapter 70 for capability, availability, and need in order to be deemed suitable for recommendation as wilderness. Capability provides a second screening process that identifies areas that have wilderness character. Areas that rank high for capability and those that were brought forward in early public involvement are further evaluated for availability and need.

- *Capability*: The degree to which that area contains the basic characteristics that make it suitable for wilderness recommendation without regard to its availability for, or need as, wilderness. Characteristics include: Naturalness, Outstanding Opportunities for Solitude or Primitive and Unconfined Recreation, Special Features and Values, and Manageability.
- *Availability*: 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. In evaluating availability, other resource demands and uses that the area under evaluation could satisfy will be described.
- *Need*: Determine the need for an area to be designated as wilderness through an analysis of the degree to which it contributes to the overall National Wilderness

Preservation System. The determination of need will consider public input, as well as regional factors, such as the geographic distribution of current wilderness areas and their representativeness of landforms and ecosystems.

The Coconino National Forest will use this report to decide whether or not to make a recommendation for wilderness designation. The Responsible Official's (the Regional Forester) recommendations will be documented in the Record of Decision for the revised Forest Plan. Public comments on this issue will be accepted and considered throughout the plan revision process. If an area is recommended for wilderness, the recommendation will receive further review by the Chief of the Forest Service and the Secretary of Agriculture before being sent on to Congress.

Evaluation Process Summary

Inventory

The Coconino National Forest's GIS mapping analyses to find areas that may meet the inventory criteria (found in Appendix A) resulted in an initial list of 41 potential wilderness areas. The initial list was then reviewed by district staff in 2007 whose local knowledge and expertise of the land provided key information regarding the improvements, management activities, and land ownership in the areas. For four of the areas, the GIS analysis did not identify National Forest System roads and forest management activities that staff knew existed or were occurring. Based on the on-the-ground information, these areas did not meet the inventory criteria and were removed from study. Therefore, 37 potential wilderness areas met the criteria to be on the potential wilderness inventory. Documentation associated with this inventory and the evaluation report can be requested from the project record for Forest Plan Revision at the Coconino National Forest Supervisor's Office.

Correction

When the interdisciplinary team reviewed the report and public comment received in 2009, an error was discovered for one of the areas. PW-03-04-013, Woods, is currently being treated with mechanical thinning and broadcast burning for the Rocky Park Fuels Project. Because these treated areas do not meet inventory criteria, it is withdrawn from further analysis and should not have been included in the initial inventory. Therefore, ten areas rated high for capability and were taken forward through further analysis.

Capability

The 37 areas that met the inventory criteria were evaluated for wilderness capability following FSH 1909.12 Chapter 72.1. This process identifies the presence of wilderness character (Natural, Undeveloped, Outstanding opportunities for solitude and primitive recreation, special features and values, and manageability) in each inventoried area (the complete process can be found in Appendix B). An interdisciplinary team of resource specialists from soils, watershed, wildlife, fuels management, and recreation disciplines

completed the capability process in the spring and summer of 2008. Ten areas¹ rated high in capability (Figure 1) and were taken forward for further analysis into the availability and need analysis because they exhibited the necessary wilderness character. Summaries of these analyses are found at the end of this document. The remaining 27 areas rated low or medium and were dropped from further analysis. During the public participation process in the summer 2010, the public requested further consideration of five areas that had ranked medium. Those areas were then evaluated for their availability and need and added to this report.

Capability ratings are generally as follows:

- *High*: the area is nearly pristine, has minimal development other than trails, offers opportunities for solitude, challenge, and primitive recreation, and could be managed as wilderness with minor boundary modifications.
- *Medium*: the area is mostly natural; however, there are effects to the natural environment, visible minor developments, remoteness and solitude in part of the area, and/or some management challenges if the area were designated as a wilderness.
- *Low*: the area has effects to naturalness such as non-native species that are present, persistent, and affect ecosystem function; has developments or common activities that are not consistent with wilderness, does not offer remoteness and solitude, and/or would be very difficult to manage as wilderness.

¹ Eleven areas were identified at the time of the initial evaluation, however, when the interdisciplinary team reviewed public feedback they discovered that one of these areas did not qualify and needed to be removed from further analysis (see discussion below), bringing the total to 10 areas.

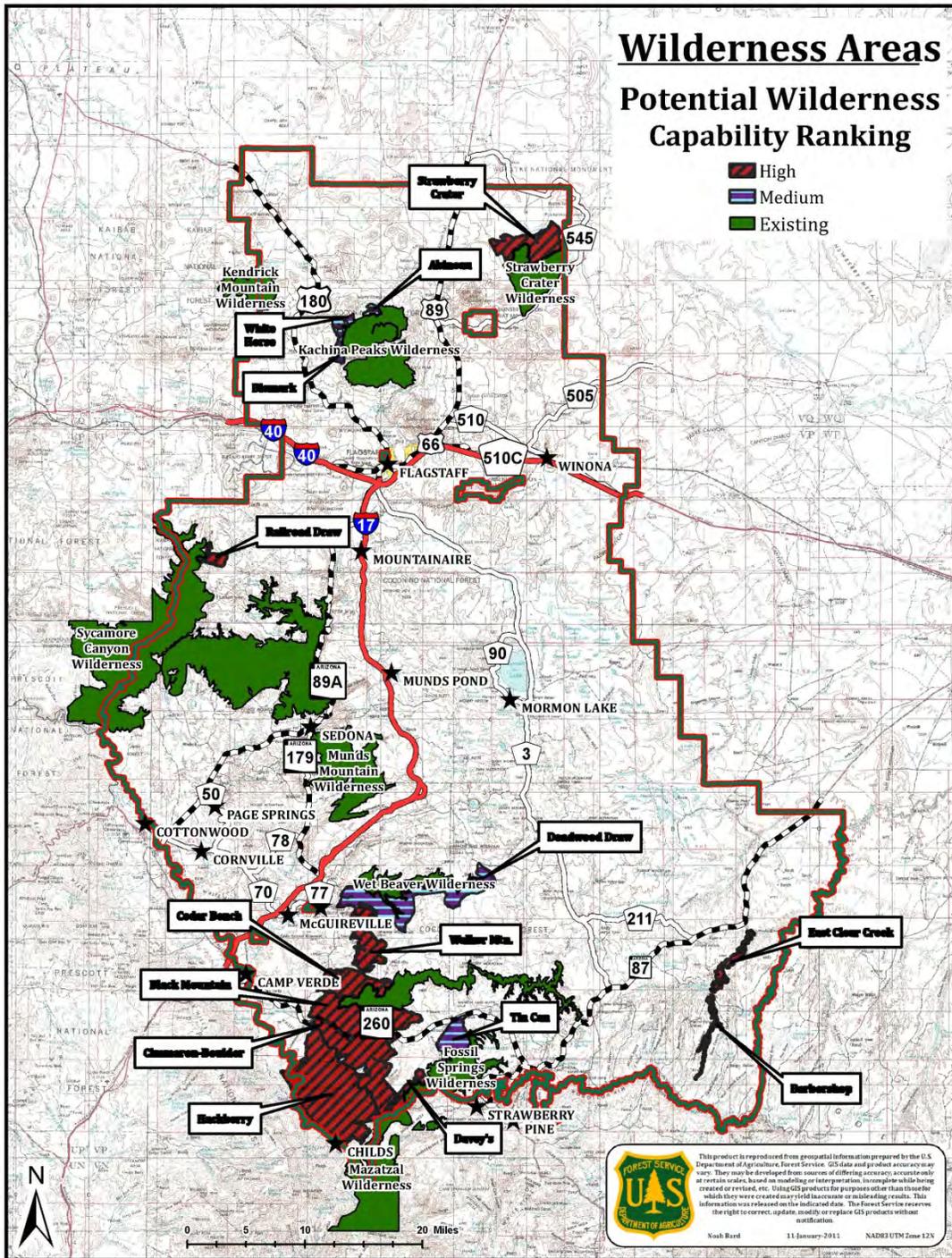


Figure 1: A map of the Coconino National Forest inventoried potential wilderness that were carried through the process.

Availability

In the summer of 2009, the interdisciplinary team evaluated the ten potential wilderness areas for availability and another five were evaluated in the winter of 2010. Appendix C provides the specific questions used to evaluate availability. Availability ratings are generally as described below:

- *High:* Resources (availability factors) are not encumbered by existing uses or commitments, there are few uses that are currently allowed which are not usually allowed in designated wilderness and these uses can be mitigated.
- *Medium:* At least two or more resources have existing or planned uses and activities that are not compatible with designated wilderness.
- *Low:* There are long term commitments of resources for incompatible uses, and difficult conflicts would occur if the area were designated as wilderness.

The summary of analysis for each potential wilderness is provided at the end of this document.

Need

In June and December 2010, the interdisciplinary team evaluated the fifteen potential wilderness areas for need. The need ratings are based on the area's potential contributions of wilderness opportunities, in terms of social and ecological considerations, to the National Wilderness Preservation System. FSH 1909.12, Subsection 72.3 describes the following factors that are to be considered. Appendix D describes the need evaluation and rating criteria in more detail. A separate report has been prepared discussing the need evaluation in detail and is available at <http://www.fs.fed.us/r3/coconino/projects/plan-revision/index.shtml>

- **Factor #1, Item #1:** The location, size, and type of other wilderness in the general vicinity and its distance from the proposed area.
- **Factor #1, Item #2:** Accessibility of existing and potential wilderness to population centers and user groups.
- **Factor #2, Item #1:** Present visitor pressure on other wilderness.
- **Factor #2, Item #2:** Trends in use, changing patterns of use, population expansion factors, and trends and changes in transportation.
- **Factor #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.
- **Factor #4 Item 1:** 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.

- **Factor #4 Item 2:** The need to provide primitive habitat and connectivity for wildlife movement.²
- **Factor#5:** Within social and biological limits, management may increase the capacity of established wilderness to support human use without unacceptable depreciation of the wilderness resource.
- **Factor #6:** An area's ability to provide for preservation of identifiable landform types and ecosystems.

The potential wilderness areas were then ranked for need based on the following:

- *High: The area contributes considerably to recreational and ecological needs for wilderness.*
- *Medium: The area contributes moderately to a recreational or an ecological need for wilderness.*
- *Low: The area would not add desirable visitor opportunities or contribute to ecological diversity.*

The summary of analysis for each potential wilderness is provided at the end of this document. Further input from the public may affect these ratings.

Next Steps

Public involvement and input is an essential part of the need analysis. Therefore, the draft Potential Wilderness Evaluation Report will be provided to the public for feedback, and public meetings will be held in conjunction with the public review of the working draft Forest Plan. The public feedback will be considered and incorporated into the reports, as appropriate. In September 2010, after considering internal input and public comments, the Forest leadership recommended including Davey's, Walker Mountain and Strawberry Crater in the Proposed Action for Forest Plan Revision. These recommendations are preliminary and can change dependent on additional public comment and Forest review. As part of the development of alternatives to the Proposed Action, in spring 2011 Coconino National Forest leadership will consider modifications to the Proposed Action and which areas, if any, should be proposed as wilderness in alternatives. Any areas considered during the development of the revised Plan and associated alternatives for potential recommendation as wilderness will be reviewed, the environmental effects of designation will be evaluated, and Forest Plan components will be drafted in the Record of Decision for the revised Forest Plan. The Regional Forester will make final recommendations

² Currently the data needed to evaluate areas based on this criteria is only available to Coconino County. Data for Yavapai County is expected to be made available by AZGFD in the next year.

Potential Wilderness Evaluations

Table 1 summarizes the findings of the Capability, Availability, and Need evaluations. The remainder of this report provides the wilderness evaluation documentation for each potential wilderness area that was rated as high capability. The Capability, Availability, Need are summarized for each area as described in FSH 1909.12 Chapter 74.

Table 1: Summary of Capability, Availability and Need Rankings for 15 Potential Wilderness Areas.

Potential Wilderness	Capability	Availability	Need
Strawberry Crater PW-03-04-001	High	Medium	High
Abineau PW-03-04-002	Medium	Medium	High
White Horse PW-03-04-003	Medium	Low	High
Bismark PW-03-04-004	Medium	Low	High
Railroad Draw PW-03-04-006	High	Low	Medium
Deadwood Draw PW-03-04-018	Medium	Low	High
Walker Mountain PW-03-04-019	High	Medium	High
Cedar Bench PW-03-04-022	High	Medium	Medium
Black Mountain PW-03-04-023	High	Medium	High
Cimmaron- Boulder PW-03-04-025	High	Medium	Medium
Hackberry PW-03-04-026	High	Medium	High
Tin Can PW-03-04-027	Medium	Medium	Medium
Davey's PW-03-04-028	High	Medium	Medium
East Clear Creek PW-03-04-036	High	Medium	Medium
Barbershop PW-03-04-037	High	High	Medium

Strawberry Crater PW-03-04-001

DESCRIPTION

Acres, Location, Landforms: This potential wilderness area is 6,704 acres. The area would be an expansion of the Strawberry Crater Wilderness that is currently 10,141 acres. This addition would bring the overall acreage to 16,845. The overall terrain is relatively flat but contains areas of hills elevated plains, cinder cones, plains, scarp slopes of plains, and lava flows. The area is dissected by key drainages to the north, including Deadman's Wash.

Vegetation: Pinyon-juniper comprises the majority of the vegetation in the lava flows, with apache plume found in drainages. Ponderosa pine is found in some of the drainages.

Surroundings and Land Ownership: National Park Service land lies to the north, with state and private land to the east. The private Alpine Ranchos lies to the east and the area is adjacent to the existing Strawberry Crater Wilderness to the south

Access and Boundaries: Access is obtained from the Sunset Wupatki Loop Road (FR 545) and existing forest roads. Forest Service road 779 leads to the existing Strawberry trailhead. Boundaries are established with the power line, existing roads, and the existing Strawberry Crater Wilderness boundary.

Current Uses: Current uses include: livestock grazing, pinyon-juniper fuelwood collection, hunting, dispersed recreation, and hiking. There are some unauthorized off highway vehicle (OHV) trails.

Key Attractions: Attractions to the area include heritage resources, winter wildlife habitat, birds, volcanic geology, and scenic beauty.

CAPABILITY

Natural: The area has a limited amount of natural resource diversity, and non-native species are not evident. There is a mix of habitats and ecological conditions, and the night sky is clear with little to no interference from light pollution.

Undeveloped: The area has a major powerline along the western edge, and unauthorized roads due to OHV (off highway vehicle) use.

Opportunity for Solitude or Primitive and Unconfined Recreation: There are some land-based opportunities for primitive recreation. Some of the area provides physically and mentally challenging recreation opportunities. There is a high potential for a significant feeling of being alone or remote from civilization. The current Recreation Opportunity Spectrum (ROS) class is semi-primitive motorized.

Special Features: Special features include views of San Francisco Peaks, cinder cones, and the Painted Desert. The area contains a high concentration of heritage resources and sites, a few unique or rare plants/animals, and unique geologic features. The area's history is closely tied to the adjacent National Monuments and the National Park Service feels designating the area as a wilderness "would achieve many resource protection goals for the areas that the National Park Service has sought."

Manageability: The area's proximity to numerous travel corridors, topography, and vegetation limit the ability to manage for wilderness character as evidenced by current motor vehicle intrusion into the adjacent existing Wilderness. The majority of boundary is well defined, by both current wilderness and roads.

Overall Capability: High

AVAILABILITY

In the Strawberry Crater Potential Wilderness Area, most of the current recreational uses could continue if the area was designated as wilderness. The current OHV use in the area would not be permitted under wilderness designation. Watersheds within the area are properly functioning. There is some woodcutting in the area that is incompatible with wilderness designation. Livestock grazing is permitted but is currently deferred in the area. Grazing occurs at very low intensity due to lack of water. There are approximately 4 miles of fence within the area that are maintained by the grazing permittee. There are two wildlife-related trick tanks in the area that are important deer and pronghorn waters. The Department of Arizona Fish and Game currently uses mechanized equipment to maintain these tanks. There are no ecosystem restoration activities planned for the area at this time. However, the area is in need of vegetation treatments, and there is the potential for such activities in the future.. There is little or no potential for extraction of locatable minerals. The Strawberry Crater Potential Wilderness Area is entirely National Forest System Lands as well as the adjacent land.

Availability Rating: Medium

NEED

Recreational Need (Factors 1, 2, 3): There is recreational need for wilderness throughout the Coconino National Forest due to projected population increases, the high existing wilderness use on the Coconino National Forest, and the high use of wilderness in Northern Arizona. Generally, high use indicates a need for further designation. Northern Arizona has fewer acres of wilderness compared to other portions of the Southwest Region, despite being an area of higher wilderness use. In addition, the Strawberry Crater Potential Wilderness Area is situated near Flagstaff, which is underserved by existing wilderness areas in Arizona.

Ecological Need (Factors 4, 5, 6): Strawberry Crater contains a significant amount of three regionally under-represented landforms, including Coconino Plateau, Kaibab Woodland, and Painted Desert Steppe Grassland (totalling more than 6,000 acres). There are no known species in this area that would require primitive surroundings.

Need Rating: High

DRAFT

Abineau PW-03-04-002

DESCRIPTION

Acres, Location, Landforms: This potential wilderness would be a 436 acres addition to the Kachina Peaks Wilderness. Landforms include mountains, hills, and alluvial fans.

Vegetation: Mixed conifer forest dominates the area, with ponderosa pine in the northern portions, and patches of aspen.

Surroundings and Land Ownership: This area is adjacent to the existing Kachina Peaks Wilderness, with some small private land holdings to the west.

Access and Boundaries: Access is from the existing trailhead. Boundaries are formed by Forest Service road 418 to the north, and the Kachina Peaks Wilderness to the south.

Current Uses: Current uses include: hiking, limited dispersed camping, some grazing, hunting, winter recreation, looking at fall foliage, and driving.

Key Attractions: Attractions to the area include: aspen habitat, scenery, and hiking.

CAPABILITY

Natural: There is a high diversity of tree species and wildlife habitats, including a range of vegetation such as mixed conifer, ponderosa pine, and aspen. A variety of unique wildlife species can be found in the vicinity. Non-native species are evident in isolated spots. The night sky is clear with little to no interference from light pollution. Water resources are not present in this area.

Undeveloped: This area has several minor improvements and is mostly free from human disturbance. It contains multiple trails and abuts private land. There are motorized intrusions on the north end.

Opportunity for Solitude or Primitive and Unconfined Recreation: Most of the area provides challenging recreation opportunities. Finding solitude and achieving the feeling of being alone is possible, but signs of civilization are likely due to the private land nearby. Primitive recreation opportunities include backpacking and hunting. The ROS classification for this area is Roaded Natural in the current Forest Plan.

Special Features: The area offers panoramic views of Humphrey's Peak and has aspen groves. Potential for research and environmental education is moderate. A large avalanche path in the area has been studied. The area contains a few rare species, such as the Mexican Spotted Owl and Northern goshawks.

Manageability: Manageability in this area is challenged by the private land nearby and the small size of the area. However, the terrain makes it easier to manage. The majority of the boundaries are easily found on the ground.

Overall Capability: Medium

AVAILABILITY

In the Abineau Potential Wilderness Area, most of the current recreational uses could continue if the area was designated as wilderness. The current OHV use in the area would not be permitted under wilderness designation. Watersheds within the area are properly functioning. Livestock grazing is permitted in the area, but is currently deferred. There are no water structures in this area. There are no ecosystem restoration activities planned for the area at this time. However, the area is in need of vegetation treatments to protect wildlife habitat and reduce the risk of stand replacing fires, and there is the potential for such activities in the future. There is little or no potential for extraction of locatable minerals. The Abineau Potential Wilderness Area is entirely National Forest System Lands as well as the adjacent land.

Availability Rating: Medium

NEED

Recreational Need (Factors 1, 2, 3): There is recreational need for wilderness throughout the Coconino National Forest due to projected population increases, the high existing wilderness use on the Coconino National Forest, and the high use of wilderness in Northern Arizona. Generally, high use indicates a need for further designation. Northern Arizona has fewer acres of wilderness compared to other portions of the Southwest Region, despite being an area of higher wilderness use. In addition, the Abineau Potential Wilderness Area is situated near Flagstaff, which is underserved by existing wilderness areas in Arizona.

Ecological Need (Factors 4, 5, 6): Abineau contains a significant amount of a regionally under-represented vegetation type, Mixed Conifer with Aspen (totalling more than 300 acres). There are no known species in this area that would require primitive surroundings.

Need Rating: High

Whitehorse PW-03-04-003

DESCRIPTION

Acres, Location, Landforms: This potential wilderness would be a 278 acre addition to the Kachina Peaks Wilderness. Landforms include alluvial fans, elevated plains, and cinder cones.

Vegetation: Mixed conifer forest dominates the area, with ponderosa pine to the north, and patches of aspen.

Surroundings and Land Ownership: Private land is adjacent to the east of this area, and White Horse Hills is fully developed. Kachina Peaks Wilderness and the Coconino National Forest surround the remainder of the area.

Access and Boundaries: Private lands border some of the area, with access possible from Forest Service road 418 and the Kachina Peaks Wilderness.

Current Uses: Current uses include: hiking, mountain biking and horseback-riding, limited dispersed camping, hunting, winter recreation, viewing fall foliage, and driving.

Key Attractions: Attractions to the area include: aspen habitat, scenery, hiking, the Arizona National Scenic Trail and connectivity to Kachina Peaks Wilderness.

CAPABILITY

Natural: The proposed area is on the edge of a recent wildfire, resulting in non-native species in isolated spots. The night sky is clear with little to no interference from light pollution. Area has critical habitats for the Mexican Spotted Owl and Northern goshawks, as well as aspen. There is a moderate amount of natural resources in the area. There are no water resources in the area.

Undeveloped: Area has several minor improvements and private land nearby. It is mostly free from human disturbance.

Opportunity for Solitude or Primitive and Unconfined Recreation: The area has limited potential for challenging recreation opportunities and solitude due to the private land surrounding the area. Primitive recreation opportunities include back packing, cross country skiing, and hunting. The ROS classification for the area is semi-primitive motorized.

Special Features: There is a view of the San Francisco Peaks and volcanic features to the north. The area has limited potential for research or environmental education opportunities. The area contains Mexican Spotted Owl and Northern goshawk habitat.

Manageability: The area has a moderate degree of manageability due to the surrounding private lands. The majority of the boundaries are easily identifiable on the ground.

Overall Capability: Medium

AVAILABILITY

In the Whitehorse Potential Wilderness Area, mountain bike use on the Arizona National Scenic Trail and Aspen Loop Trail could not continue if the area was designated as wilderness. The current OHV and single-track use in the area would not be permitted under wilderness designation. Watersheds within the area are properly functioning. Livestock grazing is permitted in the area, but is currently deferred. There are no water structures in the area. The Hart Prairie Fuels Reduction and Forest Health Restoration Project is underway in this area. Associated treatments require mechanical thinning, burning and chainsaws. There may be a need to treat this area in the future to reduce the fire risk in nearby neighborhoods. There is little or no potential for extraction of locatable minerals. The Whitehorse Crater Potential Wilderness Area is entirely National Forest System Lands but there is adjacent private land along the north boundary edge.

Availability Rating: Low

NEED

Recreational Need (Factors 1, 2, 3): There is recreational need for wilderness throughout the Coconino National Forest due to projected population increases, the high existing wilderness use on the Coconino National Forest, and the high use of wilderness in Northern Arizona. Generally, high use indicates a need for further designation. Northern Arizona has fewer acres of wilderness compared to other portions of the Southwest Region, despite being an area of higher wilderness use. In addition, the Whitehorse Potential Wilderness Area is situated near Flagstaff, which is underserved by existing wilderness areas in Arizona.

Ecological Need (Factors 4, 5, 6): Whitehorse contains a significant amount of two regionally under-represented vegetation types, Mixed conifer with Aspen and Spruce-fir Forest (totaling more than 200 acres). There are no known species in this area that would require primitive surroundings.

Need Rating: High

Bismark PW-03-04-004

DESCRIPTION

Acres, Location, Landforms: This potential wilderness would be a 1,776 acre addition to the Kachina Peaks Wilderness. Landforms are comprised of alluvial fans, elevated plains, and cinder cones.

Vegetation: Mixed conifer forest dominates the area, with ponderosa pine and aspen patches in the northern portion. The area also contains Bebb's willow, subalpine grasslands, and riparian areas.

Surroundings and Land Ownership: Several areas of private land adjacent to the west are developed. Other surrounding lands include: Hart Prairie Preserve, administered by The Nature Conservancy; Kachina Peaks Wilderness, which contains portions of the Fern Mountain Botanical Area; and National Forest System lands.

Access and Boundaries: Forest Service road 151 provides access to the area. Private lands border the area on the western side, and the Kachina Peaks Wilderness borders the area to the east.

Current Uses: Current uses include: hiking, mountain biking, horseback-riding, limited dispersed camping, hunting, winter recreation, viewing fall foliage, and driving.

Key Attractions: Attractions to the area include: aspen habitat, scenery, hiking, the Arizona National Scenic Trail and connectivity to Kachina Peaks Wilderness.

CAPABILITY

Natural: Dalmatian toadflax is evident in isolated spots. The night sky is clear with little to no interference from light pollution. Area has critical/unique habitats and diverse ecological conditions. The area contains part of the Fern Mountain Botanical Area.

Undeveloped: There are range improvements throughout the south end of the area. Roads are still in existence for administrative use.

Opportunity for Solitude or Primitive and Unconfined Recreation: Most of the area provides challenging recreation opportunities. Opportunities for solitude are moderately possible, as the area is a popular hiking area and the area is surrounded by private land. Primitive recreation opportunities include backpacking, cross-country skiing, and hunting. The ROS classification in the current Plan of the area is semi-primitive motorized.

Special Features: The area provides scenic views of the cinder cones and the north rim. The area has good potential for Nature Conservancy Research. Bebb's willow and Cinquefoil are present in the area.

Manageability: The manageability of the area for wilderness character is low due to the high use of the area, the private land, and encroachments. About half of the boundary follows features that can be easily found on the ground.

Overall Capability: Medium

AVAILABILITY

In the Bismark Potential Wilderness Area, mountain bike use on the Arizona National Scenic Trail and the Aspen Loop Train could not continue if the area was designated as wilderness. The current OHV, snowmobile, and single-track use in the area would not be permitted under wilderness designation. Watersheds within the area are properly functioning. Livestock grazing is permitted in the area, but is currently deferred. The area contains 5 water structures that require motorized access for maintenance, a corral, and 2 miles of pasture fencing. The Department of Arizona Fish and Game currently uses mechanized equipment to maintain two trick tanks in the area. The Hart Prairie Fuels Reduction and Forest Health Restoration Project is underway in this area. Associated treatments require mechanical thinning, burning and chainsaws. There may be a need to treat this area in the future to reduce the fire risk in nearby neighborhoods. There is little or no potential for extraction of locatable minerals. The Bismark Potential Wilderness Area has an in-holding that is not developed, but would require access if developed, and there are additional private lands on the west boundary of the area.

Availability Rating: Low

NEED

Recreational Need (Factors 1, 2, 3): There is recreational need for wilderness throughout the Coconino National Forest due to projected population increases, the high existing wilderness use on the Coconino National Forest, and the high use of wilderness in Northern Arizona. Generally, high use indicates a need for further designation. Northern Arizona has fewer acres of wilderness compared to other portions of the Southwest Region, despite being an area of higher wilderness use. In addition, the Bismark Potential Wilderness Area is situated near Flagstaff, which is underserved by existing wilderness Areas in Arizona.

Ecological Need (Factors 4, 5, 6): Bismark contains a significant amount of four regionally under-represented vegetation, including Mixed Conifer with Aspen, Montane/subalpine grasslands, spruce-fir forest, and montane willow riparian (totally

more than 1,700 acres). A species that would benefit from the preservation of primitive surroundings in the Bismark potential wilderness is Mexican Spotted Owl.

Need Rating: High

DRAFT

Railroad Draw PW-03-04-006

DESCRIPTION

Acres, Location, Landforms: This potential wilderness is 1,280 acres. Landforms are elevated plains, hills, and escarpments.

Vegetation: Vegetation is a combination of ponderosa pine, gambel oak, and alligator juniper.

Surroundings and Land Ownership: State land lies adjacent to the east.

Access and Boundaries: Trailhead forms the south boundary. The rest of the area is bound by state lands, Forest Service roads, existing wilderness. Access is possible through the Forest Service Road 527 and connecting routes.

Current Uses: Current uses include: dispersed camping, livestock grazing, and hunting.

Key Attractions: The key attraction to the area is heritage resources.

CAPABILITY

Natural: Past timber sales, grazing, and adjacent wildfires in the area make it vulnerable to weed invasion. The night sky is clear with little to no interference from light pollution. The area has critical habitats for Mexican Spotted Owl, Bald Eagles, and riparian species. The area contains a diverse amount of natural resources.

Undeveloped: The area appears free from human disturbance.

Opportunity for Solitude or Primitive and Unconfined Recreation: Most of the area provides challenging recreation opportunities. Solitude can easily be found in this area. Primitive recreation opportunities include hunting and back packing. The ROS classification in the current Plan of the area is roaded natural.

Special Features: The area provides scenic panoramic views. The historic railroad in the area could provide an opportunity for research. The area has Northern Goshawks, Bald Eagles, and Mexican Spotted Owls.

Manageability: Manageability is moderate due to the flat terrain and state land adjacent to the area. The majority of the boundaries are easily identifiable on the ground.

Overall Capability: High

AVAILABILITY

In the Railroad Draw Potential Wilderness Area, most of the current recreational uses could continue if the area was designated as wilderness. The current OHV use in the area would not be consistent with wilderness designation. Watersheds within the area are properly functioning. Sheep grazing is permitted in the area. There are two water structures within the area, both of which are near the edge and could be excluded with a boundary adjustment. These improvements require motorized access for maintenance, as well as approximately one mile of fence through the southern portion of the area. The permittee uses the area to set up camp trailers for their herders, which need to be moved throughout the area regularly in order to avoid overgrazing. The area is outside the range of historic variability and is in need of vegetation treatments, and there is the potential for such activities in the future due to densely stocked ponderosa pine stands. There is little to no potential for extraction of locatable minerals. There are state lands adjacent to the area and Camp Raymond, a Boy Scout camp, is also adjacent with several developments and unauthorized trails.

Availability Rating: Low

NEED

Recreational Need (Factors 1, 2, 3): There is recreational need for wilderness throughout the Coconino National Forest due to projected population increases, the high existing wilderness use on the Coconino National Forest, and the high use of existing wilderness areas in Northern Arizona. Generally, high use indicates a need for further designation. Northern Arizona has fewer acres of wilderness compared to other portions of the Southwest Region, despite being an area of higher wilderness use. In addition, the Railroad Draw Potential Wilderness Area is situated near Flagstaff, which is underserved by existing wilderness in Arizona.

Ecological Need (Factors 4, 5, 6): Railroad Draw contains a small amount (8 acres) of Montane/Subalpine Grassland, a regionally under-represented ecosystem. There are no known species in this area that would require primitive surroundings.

Need Rating: Medium

Deadwood Draw PW-03-04-018

DESCRIPTION

Acres, Location, Landforms: This potential wilderness is 11,939 acres. Landforms include hills and elevated plains.

Vegetation: A variety of vegetation is found within this area, including pinyon-juniper woodlands, pinyon-juniper semi-desert grassland transition, and semi-desert grasslands/shrubland. Ponderosa pine and alligator juniper are found in the extreme eastern portion.

Surroundings and Land Ownership: The area is predominantly surrounded by National Forest, including part of Wet Beaver Wilderness, and a small amount of private land.

Access and Boundaries: Accessibility is gained by existing trails, Forest Service road 618 on the west and Forest Service road 214 on the east, and Long Canyon jeep trails. Area bounded by Wet Beaver Wilderness and forest roads.

Current Uses: Current uses include; hiking, jeep trail recreation, livestock grazing, dispersed recreation, and fuelwood cutting and gathering.

Key Attractions: Key attractions are heritage sites, scenery, and the connection to the Wet Beaver trail system.

CAPABILITY

Natural: Non-native species are evident in isolated spots in the area. The quality of night sky is moderately affected by light pollution. The area has a mix of habitats and ecological conditions. The area contains populations of *Agave delamateri*, Flagstaff beardtongue, Peregrine falcons. The area has a diverse amount of natural resources and vegetation diversity.

Undeveloped: The area has several minor improvements and is mostly free of human disturbance.

Opportunity for Solitude or Primitive and Unconfined Recreation: Few parts of the area can provide challenging recreation opportunities. Opportunity to experience solitude is possible, but signs of civilization are likely. There are some opportunities for engaging in primitive recreation such as hiking, backpacking, and hunting. The ROS classification in the current Plan is semi-primitive motorized.

Special Features: The area offers panoramic views of the surrounding area. There is good potential for scientific research and historical/cultural opportunities. The area has a few unique or rare plant species, such as *Agave delamateri*.

Manageability: The ability to manage for wilderness character is moderate. There is a lot of OHV use in the area and the flat terrain makes it conducive to intrusions. About half of the boundaries are easily identifiable on the ground.

Overall Capability: Medium

AVAILABILITY

In the Deadwood Draw Potential Wilderness Area, most of the current recreational uses could continue if the area was designated as wilderness. The current OHV and jeep use in the area would not be permitted under wilderness designation. Watersheds within the area are properly functioning. There is some woodcutting in the area that is incompatible with wilderness designation. Livestock grazing is permitted in the area under an active allotment. There are ten water structures, five of which are near the edge and could be excluded from the area with a boundary adjustment, and 20 miles of fence. All would require mechanized equipment for maintenance. The Upper Beaver Creek Watershed Fuel Reduction Project includes 366 acres of the proposed Deadwood Wilderness Area. In this area, no mechanical treatments are planned but motor vehicles would be used as part of burning operations and for maintenance. The rest of the area is in need of vegetation treatments, and there is the potential for such activities in the future. There is little or no potential for extraction of locatable minerals. The Deadwood Draw Potential Wilderness Area is entirely National Forest System Lands but there is private property on adjacent land.

Availability Rating: Low

NEED

Recreational Need (Factors 1, 2, 3): There is recreational need for wilderness throughout the Coconino National Forest due to projected population increases, the high existing wilderness use on the Coconino National Forest, and the high use of wilderness in Northern Arizona. Generally, high use indicates a need for further designation. Northern Arizona has fewer acres of wilderness compared to other portions of the Southwest Region, despite being an area of higher wilderness use. In addition, the Deadwood Draw Potential Wilderness Area is situated near Flagstaff, which is underserved by existing wilderness areas in Arizona.

Ecological Need (Factors 4, 5, 6): Deadwood Draw contains a significant amount of a regionally under-represented landform: White Mountains Scarp Woodland-Coniferous Forest (totalling more than 1,000 acres). Species that would benefit from the preservation of primitive surroundings in the Deadwood Draw potential wilderness are Northern leopard frogs, Golden Eagle, four spotted skipperling, spotted bat, greater mastiff bat, Townsend's big-eared bat, and Allen's lappet browed bat.

Need Rating: High

Walker Mountain³ PW-03-04-019

DESCRIPTION

Acres, Location, Landforms: This potential wilderness area is 6,378 acres. Landforms include hills, mountains, and escarpments.

Vegetation: Vegetation includes pinyon-juniper woodlands, chaparral, and a minor portion of semi-desert grassland and shrubland.

Surroundings and Land Ownership: The area is surrounded by National Forest System lands.

Access and Boundaries: Accessibility is gained by hiking trails, Forest Service roads 214 and 618. Boundaries of the area are the same as the Walker Mountain Inventoried Roadless Area **with minor modifications.**

Current Uses: Current uses include; livestock grazing, fuelwood cutting and gathering, OHV (off highway vehicle) use, hunting, hiking, and dispersed recreation.

Key Attractions: A key attraction to the area is the Walker Basin trail.

CAPABILITY

Natural: Non-native species such as cheatgrass are evident in isolated spots. The creek in the area is considered free flowing. There are no known water quality issues within the area, but the creek hasn't been sampled. The quality of night sky is moderately affected by light pollution. The area has a mix of habitats, natural resources, and ecological conditions. There is a mixed amount of vegetation diversity.

Undeveloped: Area contains several minor improvements mainly consisting of stock tanks, fences, and ATV trails, but is mostly free from human disturbance.

Opportunity for Solitude or Primitive and Unconfined Recreation: The area's rough terrain and large size provide challenging recreation opportunities. Hiking, hunting, and fishing are possible. There is a significant feeling of being alone and remote from civilization. The ROS classification in the current Plan is semi-primitive non-motorized.

Special Features: This area has unique terrain, **panoramic views, a riparian system that can sustain native fisheries, and divers habitat for wildlife.** There are research

³ The boundary of this PWA has been changed since it was originally inventoried in order to a recently approved waterline for grazing on the south end of the area that was just within the original boundary. These boundary changes increased the manageability and availability of the area without sacrificing wilderness character.

opportunities for beetle kill, fish, and historic features. Gila chub is found within this area.

Manageability: The ability to manage the area for wilderness character is moderate. The majority of the boundaries are recognizable due to natural features **in most places along the boundary.**

Overall Capability: High

AVAILABILITY

In the Walker Mountain Potential Wilderness Area, most of the current recreational uses could continue if the area was designated as wilderness. The current OHV use in the area would not be permitted under wilderness designation. Watersheds within the area are properly functioning. **There is some need for mechanized vegetation treatments and prescribed fire in the area for habitat issues in pinyon-juniper.** Livestock grazing is permitted in the area. There are **four water structures and five miles of fence** that currently require mechanized machinery for maintenance. There is little or no potential for extraction of locatable minerals. The Walker Mountain Potential Wilderness Area is not adjacent to non-federal land.

Availability Rating: Medium

NEED

Recreational Need (Factors 1, 2, 3): There is recreational need for wilderness throughout the Coconino National Forest due to projected population increases, the high existing wilderness use on the Coconino National Forest, and the high use of wilderness in Northern Arizona. Generally, high use indicates a need for further designation. Northern Arizona has fewer acres of wilderness compared to other portions of the Southwest Region, despite being an area of higher wilderness use.

Ecological Need (Factors 4, 5, 6): Walker Mountain contains 1,715 acres of Interior Chaparral, a regionally under-represented ecosystem. Species that would benefit from the preservation of primitive surroundings in the Walker Mountain potential wilderness are the Gila chub, Black Hawk, lowland leopard frogs, and the narrow-headed gartersnake.

Need Rating: High

Cedar Bench PW-03-04-022

DESCRIPTION

Acres, Location, Landforms: This potential wilderness is 5,867 acres. Landforms are comprised of hills, elevated plains, and escarpments.

Vegetation: Vegetation varies from juniper semi-desert grassland transition to pinyon-juniper woodlands in the extreme eastern portion. Creosote desert vegetation is found in the extreme southwest portion of the potential wilderness.

Surroundings and Land Ownership: All surrounding lands are National Forest System lands.

Access and Boundaries: The area is accessible from Forest Service roads 215 and 214. The area is bounded by Forest Service roads and the West Clear Creek Wilderness.

Current Uses: Current uses include: fuelwood collecting and gathering, hunting, dispersed recreation, livestock grazing, and hiking.

Key Attractions: Key attractions to the area are wildlife viewing and scenery.

CAPABILITY

Natural: Non-native species are evident in isolated spots. The rivers in the area are in free flowing condition, and there are no water quality issues. Night skies are somewhat visible in the area, and there is moderate light degradation from nearby Camp Verde. The area has critical and unique habitats and diverse ecological conditions. The area contains heath-leaf wild buckwheat, Verde valley sage, golden and bald eagles, and southwestern willow flycatcher. The area contains a diverse amount of natural resources.

Undeveloped: The area has several minor improvements such as stock tanks, but is mostly free of human disturbance.

Opportunity for Solitude or Primitive and Unconfined Recreation: Some of the area has the potential for challenging recreation and opportunities for solitude. Primitive recreation opportunities include backpacking, hiking, and hunting. The ROS class of the area is roaded natural and semi-primitive non-motorized.

Special Features: The area has panoramic views, **unique geology**, the potential for cultural opportunities and research on the springs in the area. The area has several unique or rare species of plants and animals.

Manageability: The area is isolated from areas of activity and has limited access and resource conflicts. The majority of the boundaries can be easily found on the ground.

Overall Capability: High

AVAILABILITY

In the Cedar Bench Potential Wilderness Area, most of the current recreational uses could continue if the area was designated as wilderness. The current OHV use in the area would not be consistent with wilderness designation. Watersheds within the area are properly functioning. Livestock grazing is permitted in the area. There are six water structures and approximately 7 miles of fence in the area that currently require mechanized machinery for maintenance. There are three proposed drinkers and several miles of pipeline that have been authorized under the allotment's recent NEPA decision. 65% of the winter waters for this allotment are within the Cedar Bench Potential Wilderness area. 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. There is little or no potential for extraction of locatable minerals.

Availability Rating: Medium

NEED

Recreational Need (Factors 1, 2, 3): There is recreational need for wilderness throughout the Coconino National Forest due to projected population increases, the high existing wilderness use on the Coconino National Forest, and the high use of wilderness in Northern Arizona. Generally, high use indicates a need for further designation. Northern Arizona has fewer acres of wilderness compared to other portions of the Southwest Region, despite being an area of higher wilderness use.

Ecological Need (Factors 4, 5, 6): Cedar Bench contains a small amount (14 acres) of a Mixed Broadleaf Deciduous Riparian Forest, a regionally under-represented ecosystem. There are no known species in this area that would require primitive surroundings.

Need Rating: Medium

Black Mountain PW-03-04-023

DESCRIPTION

Acres, Location, Landforms: This potential wilderness area is 9,850 acres. Landforms found in the area are escarpments, elevated plains, valley plains, and hills.

Vegetation: Vegetation varies throughout the area and includes pinyon-juniper and alligator juniper in the eastern portion, juniper semi-desert grassland transition and juniper semi-desert shrubland in the western portion, and riparian vegetation.

Surroundings and Land Ownership: The area is surrounded mostly by National Forest System Lands, although some of the area is bordered by private land.

Access and Boundaries: The area is accessible from Forest Service road 215, Arizona State Route 260, and other Forest Service roads off of State Route 260, as well as trails in the area. The area is bounded by Arizona State Route 260, West Clear Creek Wilderness, and a small segment of Forest Service road 215.

Current Uses: Current uses in the area include livestock grazing, fuelwood collecting and gathering, hunting, dispersed recreation, hiking, and OHV (off highway vehicle) use.

Key Attractions: The key attraction to the area is the historic General Crook Trail.

CAPABILITY

Natural: Non-native species are evident in isolated spots in the area. Rivers within the area are considered free flowing and have no water quality issues. Night skies are somewhat visible in the area and there is moderate light pollution from nearby Camp Verde. The area has critical and unique habitats, diverse ecological conditions, and a diverse amount of natural resources. There are Chiricahua leopard frogs, bald eagles, and Southwest willow flycatchers in the area.

Undeveloped: The area has several minor improvements such as stock tanks, but is mostly free of human disturbance.

Opportunity for Solitude or Primitive and Unconfined Recreation: The area provides challenging recreation opportunities. The feeling of being alone is possible, but signs of civilization are likely. There are many opportunities to engage in primitive recreation. The ROS class for the area is semi-primitive motorized, semi-primitive non-motorized, and roaded natural.

Special Features: The area has many distinct features like rock formations and panoramic views. There are opportunities for research in the area as well as cultural opportunities. The area contains unique and rare species of plants and animals.

Manageability: The area is isolated from areas of activity and has limited access and limited resource conflicts. The majority of the boundary is identifiable on the ground.

Overall Capability: High

AVAILABILITY

In the Black Mountain Potential Wilderness Area, most of the current recreational uses could continue if the area was designated as wilderness. The current OHV use in the area would not be consistent with wilderness designation. Watersheds within the area are properly functioning. Livestock grazing is permitted in the area. These current authorizations allow for mechanized machinery to maintain seven water structures and approximately 8 miles of fence. Gates along these fences are frequently left open or damaged. Tank maintenance in this area is particularly important to because they provide potential reintroductions sites for leopard frogs. The Arizona Department of Game and Fish are considering repair of an old CCC catchment and construction of a new one in the future. The Department also conducts surveys by ATV in this area. There is some need for juniper removal for wildlife habitat using mechanized equipment. There is little or no potential for extraction of locatable minerals. The Black Mountain Potential Wilderness Area is entirely National Forest System Lands as well as the adjacent land.

Availability Rating: Medium

NEED

Recreational Need (Factors 1, 2, 3): There is recreational need for wilderness throughout the Coconino National Forest due to projected population increases, the high existing wilderness use on the Coconino National Forest, and the high use of wilderness in Northern Arizona. Generally, high use indicates a need for further designation. Northern Arizona has fewer acres of wilderness compared to other portions of the Southwest Region, despite being an area of higher wilderness use.

Ecological Need (Factors 4, 5, 6): Black Mountain contains 187 acres of regionally under-represented ecosystems, including Cottonwood Willow Riparian Forest and Mixed Broadleaf Deciduous Riparian Forest. Golden eagles would benefit from the preservation of primitive surroundings in the Black Mountain potential wilderness.

Need Rating: High

Cimmaron-Boulder PW-03-04-025

DESCRIPTION

Acres, Location, Landforms: This potential wilderness is 15,590 acres. Landforms include hills, elevated plains, mountains, and escarpments.

Vegetation: Vegetation is a combination of converted pinyon-juniper woodlands, converted piñon alligator woodlands, and juniper semi-desert grassland transition.

Surroundings and Land Ownership: The area is entirely surrounded by National Forest, and includes both the Cimarron and Boulder Inventoried Roadless Areas.

Access and Boundaries: The area is accessible from Forest Service road 708, and Arizona State Route 260. The area is bounded by roads and the powerline.

Current Uses: Current uses include: livestock grazing, OHV (off highway vehicle) use, dispersed recreation, hunting, and hiking.

Key Attractions: The key attractions to the area are the geologic features and cultural resources.

CAPABILITY

Natural: Non-native species are evident in isolated spots in the area. The night sky is clear with little to no interference from light pollution. The area has a mix of habitats, ecological conditions, and natural resources.

Undeveloped: The area has several minor improvements such as tanks and diverted springs, but it is mostly free from human disturbance.

Opportunity for Solitude or Primitive and Unconfined Recreation: Some parts of the area have the potential for challenging recreation. There is a significant feeling of being alone and away from civilization. There are some opportunities for engaging in primitive recreation. The ROS classification in the current Plan of the area is semi-primitive motorized, semi-primitive non-motorized, and roaded natural.

Special Features: The area has many distinct features such as geology and panoramic views. There is the potential for cultural opportunities in the area. Several unique and rare plant and animal species occupy the area.

Manageability: The area is somewhat isolated from areas of activity and has adequate access opportunities with some resource conflicts. The majority of the boundaries can be easily identified on the ground.

Overall Capability: High

AVAILABILITY

In the Cimmaron-Boulder Potential Wilderness Area, most of the current recreational uses could continue if the area was designated as wilderness. The current OHV use in the area would not be consistent with wilderness designation. Watersheds within the area are properly functioning. Livestock grazing is permitted in the area. These current authorizations allow for mechanized machinery to maintain eighteen water structures, three of which are near the edge and could be excluded from the area with a boundary adjustment, a corral and approximately 23 miles of fence in the area. Gates along these fences are frequently left open or damaged. Chiricahua leopard frog habitat is in associated tanks, seeps and springs and needs to be actively managed. Some dirt tanks in the area may need repair and maintenance to protect habitat for Chiracahua leopard frog habitat and game species, particularly in the Buckskin Hills Conservation and Management Zone. 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. There is little or no potential for extraction of locatable minerals. The Cimmaron-Boulder Potential Wilderness Area is entirely National Forest System Lands as well as the adjacent land.

Availability Rating: Medium

NEED

Recreational Need (Factors 1, 2, 3): There is recreational need for wilderness throughout the Coconino National Forest due to projected population increases, the high existing wilderness use on the Coconino National Forest, and the high use of wilderness in Northern Arizona. Generally, high use indicates a need for further designation. Northern Arizona has fewer acres of wilderness compared to other portions of the Southwest Region, despite being an area of higher wilderness use.

Ecological Need (Factors 4, 5, 6): Cimmaron-Boulder contains a small amount (83 acres) of regionally under-represented ecosystems, including Cottonwood Willow Riparian Forest and Mixed Broadleaf Deciduous Riparian Forest. Species that would benefit from the preservation of primitive surroundings in the Cimarron-Boulder potential wilderness are the lowland and Chiricahua leopard frogs and the narrow-headed and Mexican gartersnakes.

Need Rating: Medium

Hackberry PW-03-04-026

DESCRIPTION

Acres, Location, Landforms: This potential wilderness is 26,223 acres. Primary landforms include escarpments, hills, mountains, and some elevated plains.

Vegetation: Vegetation is a combination of pinyon-juniper woodlands, pinyon-juniper evergreen shrub, juniper/semi-desert grassland transitions, and semi-desert shrubland. There are isolated seeps and springs, with intermittent riparian areas that contain riparian vegetation.

Surroundings and Land Ownership: The area is entirely surrounded by National Forest; part of the area crosses the Verde River, and extends onto the Prescott National Forest.

Access and Boundaries: Access is possible from Forest Service roads 708 and 500. Boundaries include a powerline to the west and south, Forest Service roads, and segments of the Verde River.

Current Uses: Current uses include grazing, dispersed recreation, hunting, and hiking.

Key Attractions: Attractions to the area include unique geological formations, bat roosts, winter wildlife viewing opportunities, and Towel Creek trail.

CAPABILITY

Natural: Non-native species are evident in isolated spots in the area. The night sky is clear with little to no interference from light pollution. The area has critical and unique habitats, diverse ecological conditions, and diverse natural resources.

Undeveloped: The area has several minor improvements, such as diverted springs and powerlines, but is mostly free from human disturbance.

Opportunity for Solitude or Primitive and Unconfined Recreation: The area provides challenging recreation opportunities and a high degree of solitude. There are some opportunities for primitive recreation. The ROS classification in the current Plan of the area is semi-primitive non-motorized, semi-primitive motorized, and roaded natural.

Special Features: The area has many distinct features such as panoramic views and unique rock formations **and heritage resources**. The area has potential for scientific research and cultural opportunities. Several unique and rare species occupy the area.

Manageability: The area is isolated from areas of activity and has limited access. The majority of the boundaries are easily identifiable on the ground.

Overall Capability: High

AVAILABILITY

In the Hackberry Potential Wilderness Area, most of the current recreational uses could continue if the area was designated as wilderness. The current OHV use in the area would not be consistent with wilderness designation. Watersheds within the area are properly functioning. Livestock grazing is permitted in the area. There are twenty-nine water structures, eight of which are near the edge and could be excluded from the area with a boundary adjustment, pipelines along Towel Creek and approximately 32 miles of fence that currently require mechanized machinery to maintain. Spring restoration and water structure maintenance are important for leopard frog recovery in the area. There is little or no potential for extraction of locatable minerals. The Hackberry Potential Wilderness Area has a rancher's base property inholding that has associated structures. All the surrounding land is National Forest System Land.

Availability Rating: Medium

NEED

Recreational Need (Factors 1, 2, 3): There is recreational need for wilderness throughout the Coconino National Forest due to projected population increases, the high existing wilderness use on the Coconino National Forest, and the high use of wilderness in Northern Arizona. Generally, high use indicates a need for further designation. Northern Arizona has fewer acres of wilderness compared to other portions of the Southwest Region, despite being an area of higher wilderness use.

Ecological Need (Factors 4, 5, 6): The Hackberry Potential Wilderness Area contains 466 acres of regionally under-represented ecosystems, including Cottonwood Willow Riparian Forest and Mixed Broadleaf Deciduous Riparian Forest. Species that would benefit from the preservation of primitive surroundings in the Hackberry Potential Wilderness Area are the Mexican free-tail bat, red bat, Townsend's bat, spotted bat, Greater Western Mastiff, lowland leopard frog, narrow-head and Mexican gartersnakes, and Yellow-billed Cuckoo.

Need Rating: High

Tin Can PW-03-04-027

DESCRIPTION

Acres, Location, Landforms: This potential wilderness would be a 4,010 acre addition to the Fossil Springs Wilderness. Landforms include elevated plains, hill, and escarpments.

Vegetation: Vegetation is pinyon-juniper evergreen shrub, alligator juniper, and isolated grasslands within pinyon-juniper interspaces, and ponderosa pine stringers.

Surroundings and Land Ownership: The area is entirely surrounded by National Forest, including Fossil Springs Wilderness. Along the boundary there is a large electrical line under special use permit.

Access and Boundaries: The area is bounded by Fossil Springs Wilderness, a series of Forest Service roads, and a utility line. Access is possible from Forest Service roads, and the Mail Trail.

Current Uses: Grazing is the primary use in the area. Camping, hunting, and fuelwood gathering also occur.

Key Attractions: The area is attractive for its scenery, view of Fossil Creek, and unique alligator juniper savannas.

CAPABILITY

Natural: Non-native species are evident in isolated spots in the area. The night sky is clear with little to no interference from light pollution. The area has a mixed amount of habitats and ecological conditions. There are a diverse amount of natural resources in the area.

Undeveloped: The area has several minor improvements and is mostly free from human disturbance.

Opportunity for Solitude or Primitive and Unconfined Recreation: Few parts of the area can provide challenging recreation. The feeling of being alone is possible but signs of civilization are likely. There are a few opportunities to engage in primitive recreation. The ROS classification in the current Plan for the area is semi-primitive motorized and roaded natural.

Special Features: The area has panoramic views and unique rock formations. There is potential for cultural opportunities. The area has a few unique and rare plants and animals.

Manageability: The area is somewhat isolated from areas of activity, has adequate access opportunities, and some resource conflicts. The majority of the boundaries are easily identifiable on the ground.

Overall Capability: Medium

AVAILABILITY

In the Tin Can Potential Wilderness Area, most of the current recreational uses could continue if the area was designated as wilderness. The current OHV use in the area would not be permitted under wilderness designation. Watersheds within the area are properly functioning. Livestock grazing is permitted in the area. There are eight water structures, four of which are near the edge and could be excluded from the area with a boundary adjustment, and 11 miles of fence that currently require mechanized machinery to maintain. The Department of Arizona Fish and Game currently uses mechanized equipment to maintain some of these tanks for wildlife. There are no ecosystem restoration activities planned for the area at this time. There is little or no potential for extraction of locatable minerals. The Tin Can Potential Wilderness Area is entirely National Forest System Lands as well as the adjacent land.

Availability Rating: Medium

NEED

Recreational Need (Factors 1, 2, 3): There is recreational need for wilderness throughout the Coconino National Forest due to projected population increases, the high existing wilderness use on the Coconino National Forest, and the high use of wilderness in Northern Arizona. Generally, high use indicates a need for further designation. Northern Arizona has fewer acres of wilderness compared to other portions of the Southwest Region, despite being an area of higher wilderness use. In addition, the Tin Can Potential Wilderness Area is situated near Flagstaff, which is underserved by existing wilderness Areas in Arizona.

Ecological Need (Factors 4, 5, 6): Tin Can does not contain a significant amount of either a regionally under-represented landform or vegetation type. A species that would benefit from the preservation of primitive surroundings in the Tin Can Potential Wilderness Area is Chiracaua leopard frog.

Need Rating: Medium

Davey's⁴ PW-03-04-028

DESCRIPTION

Acres, Location, Landforms: This potential wilderness is 1,792 acres. Landforms include elevated plains, hills, and scarp slopes of plains.

Vegetation: Vegetation is a combination of pinyon-juniper and evergreen shrub, juniper semi-desert grassland transition, and ponderosa pine stringers.

Surroundings and Land Ownership: Area is adjacent to Fossil Creek, utility line, and surrounded by National Forest System lands.

Access and Boundaries: Accessibility is from Powerline Road and Forest Service road 708. The area is bounded by Fossil Springs Wilderness and a utility line.

Current Uses: Current uses include grazing, motorized recreation, and hunting.

Key Attractions: Fossil Creek in the southern portion is the key attraction to the area.

CAPABILITY

Natural: Non-native species are evident in isolated spots in the area. The quality of night sky is clear with little to no interference from light pollution. The river in the area is considered to be free flowing, and there are no known water quality issues. The area has critical and unique habitats, diverse ecological conditions, and a diverse amount of natural resources.

Undeveloped: The area has several minor improvements, such as powerlines, but is mostly free of human disturbance.

Opportunity for Solitude or Primitive and Unconfined Recreation: Some parts of the area have the potential for challenging recreation opportunities and opportunities for solitude. There are some opportunities to engage in primitive recreation. The ROS classification in the current Plan of the area is semi-primitive motorized and roaded natural.

Special Features: There are panoramic views and geological features in the area. There is potential for scientific research and cultural opportunities. The area has a few unique and rare plants and animals.

⁴ The boundary of this PWA has been changed since originally inventoried because of a data error that did not show a road within the boundary. The area was reduced by 43 acres to exclude the road and did not change the wilderness capability, availability or need rankings for the area.

Manageability: The area is somewhat isolated from areas of activity with adequate access opportunities and some resource conflicts. The majority of the boundaries are easily identifiable on the ground.

Overall Capability: High

AVAILABILITY

In the Davey's Potential Wilderness Area, most of the current recreational uses could continue if the area was designated as wilderness. The current OHV use in the area would not be consistent with wilderness designation. Watersheds within the area are properly functioning. Livestock grazing is permitted in the area. . There are two water structures, one of which are near the edge and could be excluded from the area with a boundary adjustment, and approximately 2 miles of fence that currently require mechanized machinery to maintain. There are no ecosystem restoration activities currently planned for the area but there may be a need for some juniper removal. There are several dirt tanks for wildlife habitat management that may need renovation. Fossil Creek has already had major aquatic restoration completed. There could be a need for further improvements associated with that site, but they would be minimal. There is little or no potential for extraction of locatable minerals. The Davey's Potential Wilderness Area is next to the old Irving Childs Plant and also adjacent to private land.

Availability Rating: Medium

NEED

Recreational Need (Factors 1, 2, 3): There is recreational need for wilderness throughout the Coconino National Forest due to projected population increases, the high existing wilderness use on the Coconino National Forest, the high demand for wilderness in Northern Arizona, and the fact that Northern Arizona is under-represented compared to total federal wilderness.

Ecological Need (Factors 4, 5, 6): Davey's contains a small amount (30 acres) of Mixed Broadleaf Deciduous Riparian Forest, a regionally under-represented ecosystem. Species that would benefit from the preservation of primitive surroundings in the Davey's Potential Wilderness Area are the Fossil springsnail, spikedace, loach minnow, razorback sucker, Gila topminnow, roundtail chub, headwater chub, longfin dace, desert sucker, and Sonora sucker.

Need Rating: Medium

East Clear Creek PW-03-04-036

DESCRIPTION

Acres, Location, Landforms: This potential wilderness is 2,033 acres. Landforms include escarpments, canyons, and valley plains.

Vegetation: Main vegetation in the area is ponderosa pine on the southern aspects and Douglas fir on the northern aspects, piñon juniper, and a riparian vegetation type.

Surroundings and Land Ownership: The proposed area contains large private parcels that the Coconino National Forest is in the process of acquiring. The area is surrounded by National Forest System land and private land.

Access and Boundaries: The area is bounded by the canyon topography. It is accessible from Forest Service road 137 on the east and Forest Service road 513 on the west.

Current Uses: Current uses include dispersed day use, fishing, hiking, and dispersed camping.

Key Attractions: Key attractions include trails, water, riparian areas, native fishery and scenic features of East Clear Creek.

CAPABILITY

Natural: Non-native species are common and scattered throughout the area. The river is in free flowing condition, and there are no water quality issues. The night sky is clear with little interference from light pollution. The area has critical and unique habitats, diverse ecological conditions, and a diverse amount of natural resources.

Undeveloped: The area has only minor improvements and appears free of human disturbance.

Opportunity for Solitude or Primitive and Unconfined Recreation: Most of the area provides challenging recreation opportunities and solitude. Some opportunities for primitive recreation are present. The ROS classification in the current Plan for the area is semi-primitive non-motorized.

Special Features: The area offers scenic views and unique geology. There are potential scientific research opportunities and the area has several unique and rare plants and animals.

Manageability: The area is somewhat isolated from areas of activity with adequate access opportunities and some resource conflicts. About half of the boundaries are easily identifiable on the ground.

Overall Capability: High

AVAILABILITY

In the East Clear Creek 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. **Even though the creek is free-flowing within the area, the C.C. Cragin Dam is** upstream from the area that has affected flow of the creek. Livestock grazing is permitted in the area, though it is currently not being grazed. **There are no range improvements within the boundary.** These current authorizations do not conflict with wilderness management or detract from wilderness qualities. There is a need for burning in the area for habitat restoration. There is potential for extraction of manganese oxide in the bedrock of the area. The East Clear Creek Potential Wilderness Area is adjacent to a parcel of private land, but otherwise, the area is comprised of National Forest System Lands.

Availability Rating: Medium

NEED

Recreational Need (Factors 1, 2, 3): There is recreational need for wilderness throughout the Coconino National Forest due to projected population increases, the high existing wilderness use on the Coconino National Forest, and the high use of wilderness in Northern Arizona. Generally, high use indicates a need for further designation. Northern Arizona has fewer acres of wilderness compared to other portions of the Southwest Region, despite being an area of higher wilderness use.

Ecological Need (Factors 4, 5, 6): East Clear Creek has no regionally under-represented landforms or ecosystems. **A species that would benefit from the preservation of primitive surroundings in the East Clear Creek potential wilderness is Colorado spinedace.**

Need Rating: Medium

Barbershop PW-03-04-037

DESCRIPTION

Acres, Location, Landforms: This potential wilderness is 1,310 acres. Landforms are escarpments and canyons, valley plains.

Vegetation: Vegetation is mixed conifer on northern aspects, ponderosa pine on southern aspects, and a riparian vegetation type within the northern valley plains.

Surroundings and Land Ownership: The area is entirely surrounded by National Forest System lands.

Access and Boundaries: The area is bounded by topography. Access would be possible via Forest Service roads 321 and 145.

Current Uses: Current uses include: dispersed day use, hiking, and dispersed camping.

Key Attractions: The key attraction is the scenery and water features.

CAPABILITY

Natural: Non-native species are common and scattered throughout the area. The stream in the area is considered free flowing, and there are no known water quality issues. The night sky is clear and there is little interference from light pollution. The area has critical and unique habitats, diverse ecological conditions, and diverse natural resources.

Undeveloped: The area has only minor improvements and appears free of human disturbance.

Opportunity for Solitude or Primitive and Unconfined Recreation: Most of the area provides challenging recreation opportunities. Solitude can easily be found in this area. Primitive recreation opportunities include hunting and back packing. The ROS classification in the current Plan of the area is roaded natural.

Special Features: The area has panoramic views and the potential for scientific research. There are several unique and rare plants and animals present.

Manageability: The area is somewhat isolated from areas of activity with adequate access opportunities. About half of the boundary follows features that can easily be found and identified on the ground.

Overall Capability: High

AVAILABILITY

In the Barbershop 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. Livestock grazing is permitted in the area, though it is not expected to be grazed again. There are no range improvements within the boundary. There are no ecosystem restoration activities currently planned for the area. There is little or no potential for extraction of locatable minerals. The Barbershop Potential Wilderness Area, as well as adjacent lands, is entirely within National Forest System Lands.

Availability Rating: High

NEED

Recreational Need (Factors 1, 2, 3): There is recreational need for wilderness throughout the Coconino National Forest due to projected population increases, the high existing wilderness use on the Coconino National Forest, and the high use of wilderness in Northern Arizona. Generally, high use indicates a need for further designation. Northern Arizona has fewer acres of wilderness compared to other portions of the Southwest Region, despite being an area of higher wilderness use.

Ecological Need (Factors 4, 5, 6): Barbershop contains a small amount (18 acres) of Mixed Conifer Forest with Aspen, which are two Regionally under-represented ecosystems. A species that would benefit from the preservation of primitive surroundings in the Barbershop potential wilderness is Colorado spinedace and Mexican Spotted Owl.

Need Rating: Medium

References

USDA Forest Service. 2007c. Forest Service Handbook 1909.12 – Land Management Planning Handbook, Chapter 70 – Wilderness Evaluation.

USDA Forest Service. 2007a. “R3 Potential Wilderness Inventory Process.” Southwestern Region Wilderness Evaluation Working Group.

USDA Forest Service. 2007b. “R3 Wilderness Needs Evaluation Instructions.” Southwestern Region Wilderness Evaluation Working Group.

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Appendix A – Inventory Process

R3 Potential Wilderness Inventory Process

This document outlines the criteria to be used in determining an area for inclusion in the inventory of potential wilderness. Follow the steps below to create your inventory of potential wilderness areas as specified by FSH 1909.12, Chapter 70 - **Wilderness Evaluation**.

*Important reminders*⁵:

- The application of the inventory criteria should rely on local knowledge and judgment regarding unique, site-specific conditions of each area being considered for placement on the inventory of potential wilderness.
- When delineating areas for the potential wilderness inventory; locate boundaries at prominent natural or semi-permanent human-made features to facilitate easy on-the-ground identification.

Step One: Create an initial list and map of areas using the following two criteria from FSH 1909.12 Ch 70, Section 71.1

1. Areas that do not contain forest roads, or other permanently authorized roads;
2. Areas that are at least 5,000 acres in size, **or** less than 5,000 acres but meet one or more of the following criteria:
 - a. Area can be preserved due to physical terrain and natural conditions.
 - b. Area is a self-contained ecosystem, such as an island, that can be effectively managed as a separate unit of the National Wilderness Preservation System.
 - c. Area is contiguous to an existing wilderness, primitive area, Administration-endorsed wilderness, or other potential wilderness in other Federal ownership, regardless of their size.

Step Two: Utilize the **Criteria for Including Improvements** outlined in FSH 1909.12 Ch 70, Section 71.11 to identify areas from Step One that should be precluded from the potential wilderness inventory (*see attached Supplement A*). These would include areas such as timber harvest areas where logging and road construction are evident, mineral leases with surface occupancy, and developed recreation sites, as well as others. You may have GIS layers that relate to some of these criteria that would make them easy to identify.

Step Three: Apply the criteria for dealing with roaded areas, fingers, and other extrusions to exclude areas that do not meet the purpose of considering an area for potential wilderness (*see attached Supplement B*). Generally fingers or necks less than ½ mile in width can be used as an adjustment point. Explain the rationale for excluding the area from your inventory in the documentation.

⁵ See FSH 1909.12, Chapter 70, Section 71.

Step Four: Review the areas resulting from the above three steps to determine if they meet the statutory definition of wilderness as outlined in Section 2(c) of the Wilderness Act: *an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements⁶ or human habitation, 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;

Discussion on Step Four:

This step is where it is important to apply your local knowledge and judgment for the areas under consideration. Although there are no precise definitions for terms such as “primarily affected by the forces of nature” or “substantially unnoticeable”, Section 3 of General Technical Report on Monitoring Selected Conditions Related to Wilderness Character: A National Framework⁷ provides interpretation of these phrases and terms from Section 2(c) of the Wilderness Act. It is important to note that although an area must meet the statutory definition of wilderness to be included in the inventory; this is meant to be a more cursory look at whether the area meets the definition based on initial look. The more in-depth review of how the area measures up in terms of wilderness character is done in the capability step of the evaluation. This will include a more thorough look at the characteristics as outlined in Section 72.1 – Capability, including manageability. In developing the inventory, it is sufficient for you to discuss and document reasons why a particular area is not being included in your inventory based on the criteria provided, your knowledge of the specific area, and professional judgment. For example, you may have an unroaded area adjacent to an existing wilderness or primitive area, but because of existing active mineral operations in that area that require surface occupancy, you find it is reasonable to not include the area in the inventory as per the criteria in FSH 1909.12 Ch 70, 71.11. Document your rationale for the planning record. Another example may include an area that is greater than 5,000 acres, part of which was recently burned in a wildfire. Containment lines and temporary roads are still apparent but are beginning to revegetate. Since these are not considered permanent improvements, it is prudent to include this area in your inventory. (See example documentation in the form below for additional examples).

Step Five: Use the form below (or some similar method) to document your results and rationale for including/excluding areas for your potential wilderness inventory. This will become part of your planning record.

Step Six: Prepare a final list (and map) of your potential wilderness areas that will be evaluated. Include the area’s common name, formal identification number (see below), acreage, and location on the forest. You must also include a list (and map) of existing wildernesses and primitive areas, and other areas as outlined in Section 71.2.

Naming Scheme: Final identification of potential wilderness areas should be in the following format:

⁶ We recognize that the phrase in the Wilderness Act that says “*without permanent improvement*”, conflicts with the directives that allow improvements based on the criteria outlined in section 71.11. Please follow the criteria outlined in section 71.11 of the directives when considering areas with improvements.

⁷ See Monitoring Selected Conditions Related to Wilderness Character: A National Framework, USDA Forest Service, Rocky Mountain Research Station, General Technical Report RMRS-GTR-151, April 2005.

PW-03-XX-001

PW = potential wilderness

03 = Region 3

XX = insert your unit number

001 = the # of the potential wilderness area, beginning with 001 and continuing in sequence (002, 003, etc).

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Sharkland National Forest

Yes = meets criteria

No = does not meet criteria

~ = not applicable

STEP	Criteria	PW-example 1	PW-example 2	PW-example 3	PW-example 4
1	Is at least 5000 acres, or is < 5000 acres and meets one of the following:	Yes	Yes	Yes	Yes
	a. can be preserved due to physical terrain and natural conditions, or	~	~	~	~
	b. is a self-contained ecosystem, such as an island, that can be effectively managed as a separate unit of the National Wilderness Preservation System, or	~	~	~	~
	c. is contiguous to an existing wilderness, primitive area, Administration-endorsed wilderness, or other potential wilderness in other Federal ownership, regardless of their size.	~	Contiguous to an existing primitive area	~	~
	Does not contain forest roads, or other permanently authorized roads.	Yes	Yes	Yes	Yes
2	Area removed due to criteria in 71.11. Document rational in proper box.	~	Area contains mineral leases/operations with surface occupancy	~	~
3	Area removed according to R3 criteria for addressing roaded areas, fingers, and extrusions	~	~	~	Area has multiple roads protruding inwards that are < ½ mile apart. After adjusting the boundary based on R3 criteria, area is less than 5000 acres
4	Meets the statutory definition of wilderness as outlined in sec. 2(c) of the Act: <i>an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which:</i>	Area contains multiple user-created ATV trails. However, these are not permanent improvements. The area otherwise meets the criteria.	~	Part of area was recently burned. Containment lines and temporary roads are still apparent but beginning to revegetate. Improvements are not permanent. Area otherwise meets criteria	~
	a. generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable	Yes	~	Yes	~
	b. has outstanding opportunities for solitude or a primitive and unconfined type of recreation	Yes	~	Yes	~
	I = INCLUDE or E = EXCLUDE	I	E	I	E

R3 Potential Wilderness Inventory Supplement

A. Criteria for Including Improvements (FSH 1909.12 Ch 70, Sec 71.11)

Areas may qualify for the inventory of potential wilderness even though they include the following types of areas or features:

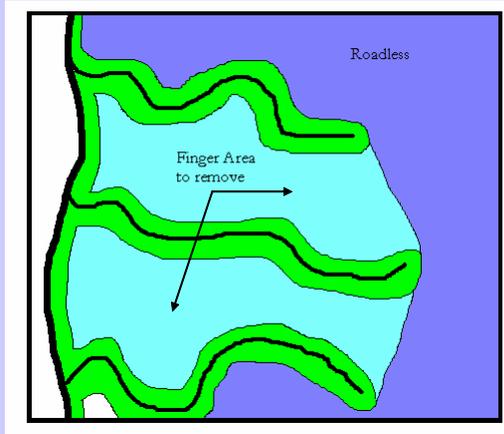
1. Airstrips and heliports.
2. Cultural treatments involving plantations or plantings where the use of mechanical equipment is not evident.
3. Electronic installations, such as cell towers, television, radio, and telephone repeaters, and the like, provided their impact is minimal.
4. Evidence of historic mining (50+ years ago). Do not include areas of significant current mineral activity, including prospecting with mechanical or motorized earthmoving equipment. The inventory may include areas where the only evidence of prospecting is holes that have been drilled without access roads to the site. Potential wilderness also may include:
 - a. Areas that otherwise meet inventory criteria if they are covered by mineral leases having a “no surface occupancy” stipulation.
 - b. Areas covered by mineral leases that otherwise meet inventory criteria only if the lessee has not exercised development and occupancy rights. If and when these rights are exercised, remove the area, or portion affected, from the inventory unless it is possible to establish specific occupancy provisions that would maintain the area in a condition suitable for wilderness.
5. Structures or evidence of vegetative manipulation resulting from past management practices in National grasslands and prairies. National Grassland and Prairie areas that contain the following features may qualify for the inventory:
 - a. Areas where vegetation type conversions are reverting to native vegetation with minimal evidence of cultivation.
 - b. Areas with less than one mile of interior fence per section.
6. Federal ownership of less than 70 percent if it is realistic to manage the Federal lands as wilderness, independent of the private land.
7. Minor structural range improvements (FSM 2240.5), such as fences or water troughs. Exclude areas where nonstructural range improvements are readily visible and apparent. Areas with spray or burning projects are permissible if there is little or no evidence of the project.

8. Recreation improvements such as occupancy spots or minor hunting or outfitter camps. As a general rule, do not include developed sites. Areas with minor, easily removable recreation developments may be included.
9. Timber harvest areas where logging and prior road construction are not evident, except as provided in Section 71.12 for areas east of the 100th meridian. Examples include those areas containing early logging activities related to historic settlement of the vicinity, areas where stumps and skid trails or roads are substantially unrecognizable, or areas where clearcuts have regenerated to the degree that canopy closure is similar to surrounding uncut areas.
10. Ground-return telephone lines, electric lines, and powerlines if a right-of-way has not been cleared.
11. Watershed treatment areas if the use of mechanical equipment is not evident. The inventory may include areas where minor watershed treatment has been accomplished manually such as small hand-constructed gully plugs.

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B. Criteria for Roaded Areas, Fingers, and Extrusions

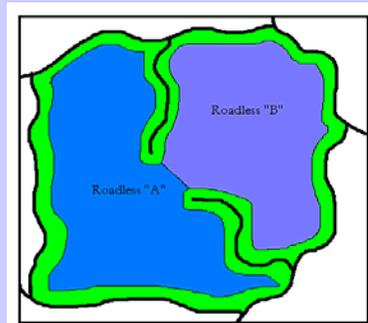
Fingers



- Remove small fingers less than 1/2 mile across if they do not exhibit wilderness character
- adjust to manageable boundary

Consider the effect roads may have on wilderness character where the distance between roads is less than 1/2 mile. Consider whether the area retains a natural appearance with man's impact substantially unnoticeable.

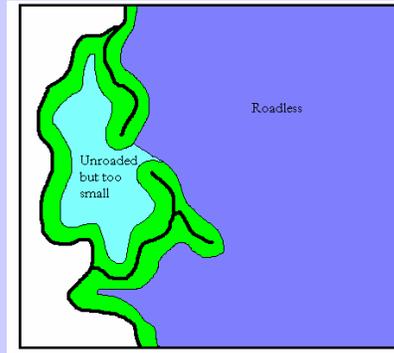
Extrusions - large



- Determine character of connection
- Keep intact if both sides are >5000 acres and connector has wilderness character
- Separate into two areas if common area is <1/2 mile or lacks wilderness character

Consider whether the connection between the roads retains wilderness character. Use the same 1/2 mile distance for fingers in your determination. Consider whether the area retains a natural appearance with man's impact substantially unnoticeable.

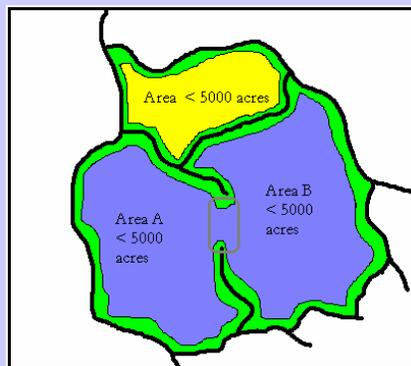
Extrusions - small



- Determine size of extrusion and distance of opening ($< \frac{1}{2}$ mile)
- Eliminate areas < 5000 acres that would not be considered on their own if they do have wilderness character
- Consider effect to total area

Consider whether the area retains a natural appearance with man's impact substantially unnoticeable.

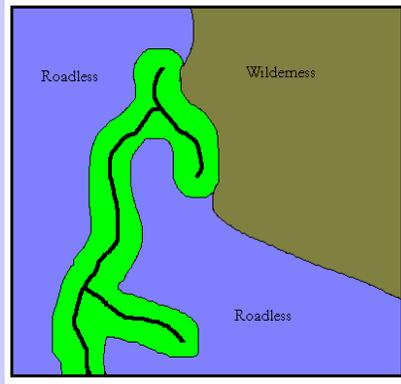
Extrusions - mixed/small areas



- Determine size of each extrusion
- Consider area of connection if less than $\frac{1}{2}$ mile
- Eliminate areas < 5000 acres that would not be considered on their own if they do have wilderness character
- Consider effect to total area

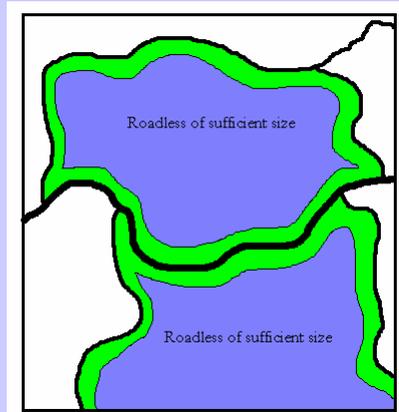
Consider areas that might be affected by narrow connections between roads. If the distance is less than $\frac{1}{2}$ mile do the resulting polygons retain wilderness character? If not, eliminate. If so, if the total area is greater than 5000 acres include in the inventory.

Contiguous Areas



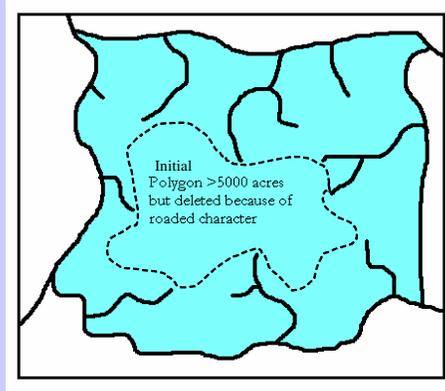
- Consider all contiguous areas regardless of jurisdiction
 - BLM wilderness
 - BLM study areas
 - BLM roadless
 - NPS lands

Separated Areas



- Consider each if >5000 acres
- Consider effect of road corridor on wilderness character
 - could unit be managed as one
 - could road be closed

Roaded Network



- Eliminate areas < 5000 acres after deleting portions of the roaded network
- Assumes remaining area does not have wilderness character and is < 5000 acres.

In heavily roaded areas an initial polygon greater than 5000 acres may be created that is adversely affected by the road network. But if after considering the effects of roads less than ½ mile distant, the resulting unroaded area is less than 5000 acres, eliminate the area from the inventory.

Appendix B - Capability Rating Criteria

Capability Characteristics – when using these criteria to rate capability include a concise description with each rating that documents the rationale behind it.

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.

2. Rivers within the wilderness area 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 wilderness area are seasonal or heavily impacted by impoundments.

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

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).

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

High – The area has critical or unique habitats and diverse ecological conditions.

Medium – The area has a mix of habitats and ecological conditions.

Low – The area has limited ecological conditions and habitats.

6. The 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.

Undeveloped

7. Area is free from human disturbance

High – Has only minor improvements and appears free of human disturbance.

Medium – Has several minor improvements and is mostly free of human disturbance.

Low – Has major improvement such as a power line or road and shows signs of human disturbance.

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.

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.

10. Opportunity to engage in primitive and unconfined recreation such as back-packing, 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.

11. Degree of primitive ROS settings

High – Majority of the area is classified primitive or semi-primitive non-motorized.

Medium – Some of the area is classified primitive or semi-primitive non-motorized.

Low – Little to none of the area is classified primitive or semi-primitive non-motorized.

Special Features and Values

12. 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.

13. 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.

14. 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.

Manageability

15. Ability to manage the area in 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

16. Area boundaries are recognizable and defensible

High – Majority of the boundary follows features that can be easily found and identifiable on the ground.

Medium – About half of the boundary follows features that can be easily found and identifiable on the ground.

Low – Boundary can rarely be located with out equipment, such as a gps unit.

Overall Capability ratings are generally as follows:

- *High:* The area is nearly pristine, has minimal development other than trails, offers opportunities for solitude, challenge, and primitive recreation, and could be managed as wilderness with minor boundary modifications.
- *Medium:* The area is mostly natural; however, there are effects to the natural environment, visible minor developments, remoteness and solitude in part of the area, and/or some management challenges if the area were designated as a wilderness.
- *Low:* The area has effects to naturalness such as non-native species that are present, persistent, and affect ecosystem function; has developments or common activities that are not consistent with wilderness, does not offer remoteness and solitude, and/or would be very difficult to manage as wilderness.

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Appendix C - Availability Questions

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.
 - Moderate** – area has a need for impoundment.
 - Low** – identified impoundment that will have an effect on wilderness character.

2. Areas needing management for wildlife or aquatic animals that MIGHT conflict with Wilderness management.
 - High** – low mgmt requirements with no motorized equipment required to meet objectives and infrequent entries.
 - Medium** – Management requiring helicopters, but no motorized equipment on the ground and frequency is generally less than 10 years.
 - Low** – Intense management (motorized equipment: helicopters, chainsaws, broadcast burning) and frequent entries (or = <5 yrs).

3. Area needing active aquatic restoration activities.
 - High** – Properly functioning with no or little restoration activities needed
 - Medium** – Site specific improvements needed
 - Low** – The majority of watershed needs attention.

4. Area needing active vegetative restoration activity 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.
 - High** – The area needs little vegetative restoration.
 - Medium** – Areas needing high intensity mgmt activities for a short time period (< or = 5 yrs). These areas would 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 mgmt (species conservation work not requiring motorized equipment).
 - Low** – The need for vegetation restoration is a higher priority over other resource needs or for a longer period of time (10 yrs +). Just because the area is outside the historic range of variability for vegetation does not mean the area rates as high.

5. Areas of high mineral deposits of economic or strategic importance.
 - High** – Does not exist or minimal development will be provided.
 - Medium** – Has features that could warrant exploration of low economic or strategic importance.
 - Low** – Has features that could warrant exploration of high economic or strategic importance.

6. Areas having such unique characteristics or natural phenomena that general public access should be developed to facilitate public use and enjoyment including winter sports sites.
 - High** – Does not exist or minimal development will be provided.
 - Medium** – Requires minor development or improvement that does not qualify as a Dev Rec Site but is a higher development level than is normally found within Wilderness.
 - Low** – Has features that warrant construction of Developed Recreation Site.

7. Lands committed through contracts, permits, or agreements that would be in conflict with Wilderness management. (some minor permitted uses may still be allowed)
 - High** – current authorizations do not conflict with potential Wilderness.
 - Medium** – Current authorization 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 commitment), and requires motorized equipment for access or maintenance.

8. Forest Service has sufficient control to prevent development of irresolvable, incompatible uses 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.

Overall Availability ratings are generally as described below:

- *High:* Resources (availability factors) are not encumbered by existing uses or commitments. There are few uses that are currently allowed which are not usually allowed in designated wilderness and these uses can be mitigated.

- *Moderate:* At least two or more resources have existing or planned uses and activities that are not compatible with designated wilderness.

- *Low:* There are long term commitments of resources for incompatible uses, and difficult conflicts would occur if the area were designated as wilderness.

Appendix D – Need Evaluation Questions and Rating Criteria

The purpose of the Wilderness Need Assessment is to identify the need for additional wilderness on the forest and in the region based on a variety of factors including visitor demand, the need to provide protections for various fish, wildlife, and plant species, and providing a reasonable representation of landforms and ecosystems within the National Wilderness Preservation System.

FSH 1909.12, Subsection 72.3 describes the factors that are to be considered. The Coconino National Forest Need Evaluation Report provides the complete documentation of consideration of these factors following R3 working-group guidance and using data provided by R3 working-group (Forest Service 2007a).

Factor #1

Item #1: The location, size, and type of other wildernesses in the general vicinity and their distance from the proposed area.

- *How many, what size (# of acres), and what types of other wilderness areas exist within the general vicinity of your forest (within 100 air miles)?*
- *How far from the potential wildernesses are these other areas?*

Item #2: Accessibility of existing and potential wildernesses to population centers and user groups.

- *How accessible are existing and potential wilderness areas in the vicinity to population centers in the planning area?*

Rating Criteria: Potential wilderness that were both distant from existing Wilderness and could serve underserved populations (Flagstaff) were rated as “high” need. Potential wilderness that were both distant from existing Wilderness or could serve the Phoenix Metropolitan area were rated as “medium” need. Those potential wildernesses that had more than a million acres of Wilderness area within 100 miles and were not within close proximity to underserved communities were rated as “low” need.

Factor #2

Item #1: Present visitor pressure on other wildernesses.

- *What is the level of current use in Forest Service wilderness areas, as well as other wildernesses in the area?*

Item #2: Trends in use, changing patterns of use, population expansion factors, and trends and changes in transportation.

Rating Criteria: Based on population increases, the high existing use on the Coconino National Forest, the high demand for wilderness in Northern Arizona, and the fact that Northern Arizona is under-represented compared to total National Wilderness

Preservation System (6-8% in Northern Arizona as compared to 17% nationally), there is a high need for wilderness on the Coconino National Forest, and thus each potential wilderness is rated as “high” need for Factor 2.

Factor #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.

- *Are there non-wilderness lands on or near the unit that are likely to provide opportunities for unconfined outdoor recreation experiences?*
- *If so, what types of lands are they, where are the lands located, and how might they meet demands for “unconfined outdoor recreation experiences”.*

Rating Criteria: There are significant opportunities for unconfined outdoor recreation experiences outside of the designated Wilderness Areas within 100 miles of the Coconino National Forest, including over 3 million acres of Federal lands. This is more than double the amount of designated Wilderness within 100 miles of the Coconino NF. Therefore, all potential wilderness areas received a “low” need rating for Factor 3.

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.

- *Are there species on the forest that require primitive surroundings for survival, or are there areas that need protection for other unique scientific values or phenomena?*
- *Does retaining the primitive conditions in these areas provide a benefit in terms of habitat connectivity for species?*

Rating Criteria: Those potential wildernesses that contain individuals of a species that needs primitive surroundings to survive received a “high” rating. Those potential wildernesses that contain habitat for species that needs primitive surroundings to survive received a “medium” rating. If a potential wilderness has neither individuals nor habitat for a species that needs primitive surroundings it received a “low” rating.

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.

- *Are there opportunities to alter management of existing wildernesses to accommodate additional demand without unacceptable depreciation of the wilderness resource?*

Rating Criteria: In general, existing wilderness on the Forest cannot accommodate increased use without depreciation of wilderness resources. This demonstrates a need for additional designations. Therefore, all potential wilderness was given a “high” rating for this factor.

Factor #6

An area's ability to provide for preservation of identifiable landform types and ecosystems.

- *Does the potential wilderness area contain any regionally under-represented ecosystem and landform types?*

Rating Criteria: Those areas that had more than 100 acres of an under-represented ecosystem or landform were rated as “high” need. Those areas that had an under-represented ecosystem or landform that was less than 100 acres were rates as “medium” need. Those with neither an under-represented ecosystem nor landform were rated as “low” need.

Overall Ratings:

Based on the above Factors, each potential wilderness was given a rating for each factor. Overall ratings were given to each potential wilderness based on the following:

- *High:* The area contributes to both a recreational need (received a high rating for Factors 1, 2, or 3) and an ecological need (received a high rating for Factors 4, 5, or 6).
- *Medium:* The area contributes either a recreational (received a high rating for Factors 1, 2, or 3) or an ecological need (received a high rating for Factors 4, 5, or 6).
- *Low:* The area would not add desirable visitor opportunities or contribute to ecological diversity.