

WILDERNESS EVALUATION

GRANITE MOUNTAIN - 608018

39,437 acres

OVERVIEW

History

The area was originally inventoried as three separate roadless areas totaling approximately 54,100 acres during RARE I. The areas were Beaver Creek, Granite Mountain, and Pebble Creek. Between 1972 and 1979, timber sales and roads reduced the size of the area by approximately 12,300 acres. The 1979 RARE II process allocated the area to non-wilderness management. Between 1979 and 1984, approximately 12,900 acres were impacted by roads and timber harvest.

The 2006 inventory removed approximately 786 acres from previous inventory due to nonconforming uses such as road construction and logging; 12,784 acres were added to the previous inventory as they met the criteria for a potential wilderness area (PWA) as described in Forest Service Handbook (FSH) 1909.12, Chapter 70. The following chart depicts the 1989 Okanogan National Forest Land and Resource Management Plan direction for the 2006 inventory.

Table 1--Management area percentages (rounded)

| Okanogan National Forest | | | |
|--------------------------|---------------------------|----------------------------------|----------------------------|
| MA05 | MA12 | MA14 | MA25 |
| Recreation Scenery | Lynx Habitat Timber | Wildlife Habitat Diversity | Timber and Range 66% |
| 13% | 20% | 24% | |

Location and Access

The area is located northeast of Winthrop and south of the Middle Salmon-Boulder Creek Road in the north central portion of the Okanogan-Wenatchee National Forest. All lands are in Okanogan County. From Winthrop, access is provided on county and National Forest System roads in the Chewuch River and a National Forest System road in Boulder Creek.

Geography and Topography

The western portion of the area is characterized by rounded ridges and V-shaped valleys and canyons. The eastern portion is characterized by broad timbered ridges and V-shaped valleys. The summit of Old Baldy Mountain and the ridge between Old Baldy and

Starvation Mountains are the dominant topographic features of the area. Elevations range from 2,600 feet on Boulder Creek to approximately 7,850 on Baldy Mountain.

Current Uses

Portions of the Beaver, Ryan, East Chewuch, and Salmon Basin Cattle Allotments are within this area. Recreation use is low with hunting the primary activity. Beaver Lake, accessed by trail, offers fishing and dispersed camping opportunities and is an area with concentrated use. The area contains system trails that provide opportunities for motorized and non-motorized recreation. There is a snowmobile route from Starvation Mountain through the Beaver Meadows area.

Appearance and Surroundings

The 2006 Tripod Fire burned throughout the area. Intensity of the fire ranged from light to heavy, creating a mosaic over the landscape. The Forks Fire (1970) area in South Boulder Creek did not burn again in the 2006 Tripod Fire. The area provides some vegetation and topographic diversity not found in surrounding areas.

Key Attractions

The Beaver Meadow and Beaver Lake areas are key attractions.

CAPABILITY FOR WILDERNESS

Level of Natural and Undeveloped Environment

The level of the natural and undeveloped environment has been affected by the control efforts of the 1970 Forks Fire and the 2006 Tripod Fire. Stumps are still visible from the Forks Fire and salvage sale. Several dozer lines were constructed through the eastern portion of the area during the Tripod Fire and those will be noticeable for a number of years in the future. An old road accesses Beaver Meadows; however, it has been closed to vehicle traffic for many years. Approximately 3,400 acres have been pre-commercially thinned. Six trails are present within the area.

Eastern brook trout are present in Boulder Creek, South Fork Boulder Creek, and Pebble Creek.

Water quality data is not available for most of the PWA; however, due to the relatively low level disturbance water quality is assumed to be high. There may be localized disturbances due to grazing activities.

There is one surveyed species of noxious weed in the PWA.

The Granite Mountain PWA is partially impaired by light pollution from the Okanogan and Methow Valley areas. The majority of the area (97 percent of the PWA) rates as a Class 2 on the Bortle Scale. The southernmost portion of the area (3 percent of the PWA) rates a Class 3. A Class 2 Typical Truly Dark Sky represents the darkest skies viewed in the continental United States. The summer Milky Way is highly structured to the unaided eye. Any clouds in the sky are visible only as dark holes or voids in the starry background.

A Class 3 Rural Sky has some indication of light pollution on the horizon. Clouds may appear faintly illuminated in the brightest parts of the sky near the horizon, but are dark overhead. The Milky Way still appears complex. Visual observing is still relatively unimpaired.

Outstanding Opportunities for Solitude or Primitive and Unconfined Recreation

Overall, use of the area is low, and thus the opportunity for solitude and primitive recreation in the northern portion of the area is high. Beaver Lake is accessed via a short trail and has more concentrated use and impacts. The southern portion of the area is narrow with roads on all sides and bisected by three trails, reducing the sense of remoteness and challenge yet still provides for some primitive recreation. There are no developed campgrounds in the area.

Special Features

The area is within the North Cascades Grizzly Bear recovery area, the core recovery area for Canada lynx, and provides source habitat for wolverine. All of these species have very limited distributions in the region. Together, the Granite Mountain, Tiffany, and Long Swamp PWAs result in a large, continuous block of remote, undeveloped habitat for these species. In addition, these same three potential wilderness areas are part of a larger expanse of continuous lynx habitat that has the highest reported concentration of lynx in the lower 48 states.

The *Cultural Resource Overview of the Twisp-Winthrop-Conconully Planning Unit* (Bennett, 1979) identified evidence of several lookouts, shelters, and cabins in the area.

Manageability of Boundaries

The current configuration would make management of much of the area as wilderness difficult. This is due to the long, narrow fingers on the south portion of the area. Boundaries could be placed on readily defined ridges on the south, east, and west, but would require placement on contours on the north. This would greatly reduce the size of the area.

AVAILABILITY FOR WILDERNESS

Recreation

The dominant ridge running south from Baldy Mountain, Beaver Meadows, and Beaver Lake areas are the areas with the most concentrated use but overall, recreation use is low. Six trails provide access through the area. Five of the trails are open to motorized use; one is designated non-motorized. Trail use is predominately mountain biking and motorized use with light hiker use. Granite Mountain trail is a popular motorbike route. There is a designated snowmobile route within the PWA in the Beaver Meadows area. Portions of the PWA have seasonal closures on motorized use to provide for non-motorized hunting. The northern portion of the area near the Middle Salmon-Boulder Creek Road provides roaded natural opportunities including hunting, driving for pleasure and dispersed camping. As

wilderness, use patterns would be changed and there would be a loss of recreation opportunities for motorized and mountain bike users.

Table 2--Miles of recreation trails

| Motorized System Trails | Non-motorized Trails | Snowmobile Routes |
|-------------------------|----------------------|-------------------|
| 21 | 4 | 8 |

Wildlife

The area provides suitable habitat for the gray wolf (federally listed as Endangered), the grizzly bear and lynx (federally listed as threatened), and the wolverine and great gray owl (listed by the Forest Service as sensitive). Lynx are known to occur in the area. Gray wolf, grizzly bear, wolverine, and great gray owl are suspected to occur. The Granite Mountain area is part of a series of potential wilderness areas in the Upper Chewuch River and Salmon Creek drainages that connect to the Pasayten Wilderness and provide important habitat for wide-ranging species that require large areas with minimal human disturbances, such as grizzly bear, gray wolf, and wolverine. Together, the Granite Mountain, Tiffany, and Long Swamp PWAs connect to the Pasayten Wilderness resulting in a large, continuous block of remote, undeveloped habitat for these species. In addition, these same three PWAs are part of a larger expanse of continuous lynx habitat that has the highest reported concentration of lynx in the lower 48 states. Approximately 3500 acres are in winter range for mule and white-tailed deer. Open, south-facing slopes with bitterbrush and other shrubs provide vital winter forage for deer. Mixed conifer old growth in the area provides productive habitat for several species of wildlife. Snag habitat for cavity dwellers is abundant due to recent insect and disease outbreaks and large wildfires.

The PWAs provide varying levels of habitat for focal wildlife species. To help evaluate the habitat that these areas provide, the following information was provided: the focal species emphasized in the area, the amount of habitat for each focal species, the priority ranking for the habitat (based on conservation assessments and recovery plans), and the proportion of the total habitat available on the Forest that is within this particular PWA.

Table 3--Availability of habitat for federally listed Threatened and Endangered wildlife species, and R6 focal species

| Wildlife Species | Acres of Habitat | Habitat Priority Ranking (1=high, 2=mod., 3=low) | %Total Forest Habitat in Evaluation Area |
|------------------|------------------|--|--|
| Grizzly bear | 36,500 | 1 | 1 |
| Canada lynx | 11,700 | 1 | 1 |
| Wolverine | 33,600 | 2 | 1 |
| American marten | 1,923 | 3 | 1 |

Water and Fish

The Granite Mountain PWA contains lands in both the Methow and mainstem Okanogan River subbasins (4th HUC). The portion in the Methow River subbasin contains the Lower Chewuch and lower middle Methow watersheds (5th HUC). Within these watersheds, the

Methow portion of the PWA contains parts of the following subwatersheds (6th HUC): Upper Beaver Creek, Bear Creek (lower middle Methow subwatershed), North Fork Boulder Creek, Boulder Creek, and Chewuch River-Pearrygin Creek (mainstem lower Chewuch watershed). Less than one quarter of Upper Beaver Creek, Bear Creek, and Chewuch River-Pearrygin subwatersheds are located in the PWA. Over half of Boulder Creek and one-quarter of north fork Boulder Creek subwatersheds are in the PWA. The Bear Creek, Chewuch River- Pearrygin Creek, Boulder Creek and north fork Boulder Creek subwatersheds have some changes in expected vegetation conditions and some road effects. When vegetation conditions and road related effects are considered cumulatively, these four subwatersheds were rated fair.

The Upper Beaver Creek subwatershed has had substantial changes in expected vegetation conditions and considerable road-related effects. When compared against unmodified subwatersheds in the Okanogan-Wenatchee National Forest (which are considered a rating of *good*), forest vegetation condition changes and road construction effects have reduced the upper Beaver Creek subwatershed condition to poor.

The portion of the Granite Mountain PWA in the Okanogan subbasin is located in the Salmon Creek watershed (5th HUC). The Salmon Creek watershed contains the south fork Salmon Creek and west fork Salmon Creek subwatersheds (6th HUC). Over one-quarter of both subwatersheds is located within the PWA. The west fork Salmon Creek and south fork Salmon Creek subwatersheds have some changes in expected vegetation conditions and some road effects. When vegetation conditions and road-related effects are considered cumulatively, these two subwatersheds were rated fair.

The east portion of the Granite Mountain PWA drains into Summit Creek and the Conconully reservoir, a popular summer recreation area. The west side drains into Beaver Creek, which supports bull trout (federally listed as threatened) and summer steelhead, and has limited spring Chinook salmon (federally listed as endangered) use. The north side drains into Boulder Creek and the Chewuch River, which also support bull trout, summer steelhead, and spring Chinook salmon. The streams with summer steelhead and spring Chinook salmon are designated as critical habitat. Other fish species in the area include westslope cutthroat trout (Regional Forester's sensitive species list) and eastern brook trout. The PWA supplies essential cold and clean water for listed fish species in watersheds of the Methow subbasin, which include the Chewuch River, Beaver Creek, and Boulder Creek drainages. High, fine sediment levels from fire-related disturbances, high road densities, low large wood levels in some areas, and the presence of non-native brook trout has negatively impacted fish habitat quality in the Beaver Creek drainage. Fish passage was blocked by at least 20 fish barriers that have since been removed. Two partial barriers remain on private land. In addition, Beaver Creek is an over-adjudicated stream with several irrigation diversions that result in low summer flows. Fish habitat and water quality in Boulder Creek and the Chewuch River is generally good. Protecting water source areas for Beaver Creek and the Chewuch River is important for critical summer base flows.

Several wetlands within the Granite Mountain PWA release cold water during the summer months. The water quality and storage capability of the Granite Mountain PWA is critical for the viability and survival of bull trout, summer steelhead, and spring Chinook in the Chewuch River, Boulder Creek, and Beaver Creek areas during critical low flow periods.

Water uses in the Granite Mountain PWA include recreation and livestock with recreation, irrigation, livestock, and domestic use occurring lower in the system. There are no existing or proposed water impoundments or know Federal Energy Regulatory Commission permits or licenses outstanding.

From an aquatic viewpoint, the Granite Mountain PWA contains some degraded ecological processes that still provide high quality (although somewhat impaired) water that is essential to the recovery of listed fish species located within the basin. Wilderness designation would protect these ecological functions. However, that objective could be accomplished without wilderness designation so long as the Granite Mountain PWA remained unroaded.

Range

Portions of the Beaver, Ryan, East Chewack, and Salmon Basin Cattle Allotments are within this area. Approximately 12 percent of the Beaver Allotment, 20 percent of the Ryan Allotment, 50 percent of the East Chewack Allotment, and 20 percent of the Salmon Basin Allotment are classified suitable for grazing. Permittees are allowed to use motorized transportation and motorized tools. Grazing systems vary on each allotment but all are under improved rotation grazing management. If designated wilderness, operating costs of the permittees would likely increase due to restrictions on motorized use.

Table 4--Percentage of grazing suitability areas and current allotments

| Percent Area Suitable for Cattle Grazing | Percent Area Currently in Cattle Allotments | Percent Area Suitable for Sheep Grazing | Percent Area Currently in Sheep Allotments |
|--|---|---|--|
| 19 | 77 | 41 | 0 |

Vegetation and Ecology

Prior to the Tripod Fire in 2006, principal tree species in areas without a recent fire history were Douglas-fir and ponderosa pine. Lodgepole pine covers those areas affected by past fires. The higher elevations of Granite and Starvation Mountains exhibit subalpine characteristics, and subalpine fir, whitebark pine, and Engelmann spruce can be found. Some western larch is also present in the south and east portions of the area. Toward the top of Baldy Mountain, stunted trees and heather occur. The Tripod Fire burned in varying intensities over the area. The majority of the lands support mature mixed conifer and lodgepole pine stands. Since 1980, about 3,400 acres were pre-commercially thinned. Methods used for conservation of the whitebark pine species would be limited if the area is designated wilderness. The ability to accomplish fuel reduction in wildland urban interface (WUI) is not a concern in this PWA.

Timber Harvest Suitability

The underlying criteria for determining timber harvest suitability are found in the Forest and Rangeland Renewable Resources Planning Act of 1974, 36CFR219.12, and Forest Service Handbook 1909.12, Chapter 60.

For the Colville and Okanogan-Wenatchee National Forests, the general criteria for timber suitability that will be used for timber harvest suitability are:

- Is it forest land (10 percent crown cover minimum, productivity >20 ft³/ac/yr).
- The area has not been withdrawn from timber harvest or production.
- Soil, slope, or other watershed conditions will not be irreversibly damaged (based on soil attributes for erosion, instability, or compaction potential, slopes >65 percent, and certain land types)
- Reforestation can be assured within five years (lack of shallow soils, low frost heave potential, low surface rock, plant community type, certain land types, and elevation <5,500 feet)
- Economic and technologic viability (<0.5 miles from existing transportation system, species value or condition, volume availability, logging systems)

In consideration of all the criteria for determining timber harvest or timber production suitability and not just the fact that harvestable species can grow at a specific location, it appears this PWA does not have conditions that pass all the criteria. The main criterion for failure is that unacceptable resource impacts would likely occur due to road construction activities. This does not preclude helicopter operations that could fly material over sensitive areas to adjacent road systems. However, in most if not all cases helicopter logging and the associated expenses (such as manual slash treatments) would not be an economically viable option.

Table 5--Stand data percentages

| Suitable for Timber Harvest | Forest Groups | | WUI | |
|-----------------------------|---------------|----------|-----------------------------|-----------|
| | 0% | Parkland | 2% | Total WUI |
| Cold Dry | | 44% | WUI in Dry and Mesic Forest | 0% |
| Cold Moist | | 21% | | |
| Mesic | | 1% | | |
| Dry | | 29% | | |
| Non-forest | | 2% | | |

Insects and Disease

The Wilderness Act of 1964 allows for the control of insects and disease, but taking such actions in wilderness is rare. Forest Service wilderness policy (Forest Service Manual 2324.11) directs the agency “to allow indigenous insect and plant diseases to play, as nearly as possible their natural ecological role”. Policy also directs the agency to “protect the scientific value of observing the effect of insects and disease on ecosystems and identifying genetically resistant plant species”, and finally, “to control insect and plant disease epidemics that threaten adjacent lands or resources.”

The Starvation Mountain portion of this PWA is comprised of a parkland forest group and is known to support stands of whitebark pine. Due to a combination of anthropogenic causes (introduced white pine blister rust, global warming, and fire suppression leading to high severity wildfires) coupled with predation from native mountain pine beetles,

whitebark pine stands are at risk across their range. These whitebark pine stands are of inherent value as a plant community, for providing important habitat for wildlife including the federally listed grizzly bear, and for their aesthetics in contributing to the social setting. Wilderness designation would limit restoration options for these stands. Manipulations would only be considered in order to protect the composite wilderness resource, and only as a last resort to preserve naturalness at the expense of trammeling.

An insect and disease survey was partially completed for the area in 2007. The most extensive damaging agent detected was mountain pine beetle in lodgepole pine. An estimated 2,100 acres were affected and about 54,100 lodgepole pines killed. This is a substantial increase in the numbers reported in 2006 or 2005. The estimate of mountain pine beetle activity in 2006 was low because pine beetle damage was difficult to distinguish from damage caused by the Tripod Fire in the summer of 2006.

The spruce beetle activity mapped for the previous two years in the South Fork of Beaver Creek was detected again in 2007. An estimated 80 acres were affected, and about 50 Engelmann spruces killed. This is considerably less damage than reported in either 2005 or 2006.

Defoliation by western spruce budworm was detected in the South Fork of Beaver Creek. This is the second year that western spruce budworm has been detected in the analysis area. An estimated 300 acres were affected.

Fire

The 2006 Tripod Fire burned throughout the majority of the area. The portion that did not burn was the previous Forks Burn (1970) in South Boulder Creek.

Threatened, Endangered, and Sensitive Plant Species

There are five rare plant species in this area. These five species are: Tall agoseris (*Agoseris elata*), northern bentgrass (*Agrostis borealis*), scalloped moonwort (*Botrychium crenulatum*), different-nerved sedge (*Carex heteroneura*), and weak saxifrage (*Saxifraga rivularis*).

Noxious Weeds

There is a total of 16 acres of diffuse knapweed (*Centaurea diffusa*) in two locations within the PWA.

Minerals and Soils

Soils are composed of glacial outwash and tills overlain by volcanic ash of various depths. Outwash soils near streams are often poorly drained because of high water tables. Soils generally have very high infiltration rates except in areas with year round high water tables. Soils with surface litter cover have low erosion hazards and are considered generally stable for management activities. Where soils are not covered with litter or large rock fragments, erosion hazards are high. Mass erosion hazards are low throughout the area.

The Granite Mountain PWA area is underlain by Cretaceous and Jurassic mixed metamorphic and igneous intrusive rocks. The area generally have a low or unknown

potential for locatable minerals but approximately 2,000 acres in the southern extremities of the area do offer a high potential for prospecting and exploration activities. Rock and stream sediment anomalies for copper, molybdenum, gold, zinc, and uranium in this area suggest possible bulk tonnage or vein targets (Grant, 1982). Additionally, approximately 1,200 acres centered on Starvation Mountain have a low to moderate potential for gold deposits (Grant, 1982). At present (6/2008), there are no active claims within the Granite Mountain PWA.

The area has not been the subject of expressions of interest, lease applications, or leases for coal, oil and gas, or geothermal resources. The area has no potential for the occurrence of coal and oil and gas resources and a low to moderate potential for geothermal resources.

Cultural and Heritage Resources

The *Cultural Resource Overview of the Twisp-Winthrop-Conconully Planning Unit* (Bennett, 1979) identified evidence of several lookouts, shelters, and cabins in the area.

Land Uses and Special Uses

Range allotments are authorized under term grazing permit.

Private Lands

There are no private lands within the area and no known subsurface rights.

NEED FOR WILDERNESS

Location and size of other wildernesses in the general vicinity, and distance from population centers:

The area is approximately 15 air miles south of the Pasayten Wilderness (529,477 acres), approximately 12 air miles east of the Lake Chelan/Sawtooth Wilderness (151,435 acres), and approximately 35 air miles northeast of the Glacier Peak Wilderness (570,573 acres). It is a three-hour drive from Wenatchee, four hours from Spokane, and a four to six hour drive from the greater Puget Sound area.

A separate analysis identified where the PWAs could contribute to the recreation setting either by preserving the primitive recreation setting adjacent to existing wilderness, or by contributing assessable and attractive day use destinations (which are under heavy pressure in existing wilderness). The analysis also examined which PWAs would contribute either a unique landform to the wilderness system, or the trails access vegetation types that are underrepresented in wilderness at a regional scale.

In ranking this PWA for its potential to provide a high quality wilderness recreation setting it ranked as low. The area does support a trail system, but only about three of these trails are likely to be attractive day use destinations for primitive recreation. Vegetation cover types and landforms would not enhance the wilderness system at a regional scale.

Present visitor pressure on other wildernesses, trends, and changing patterns of use:

Overall, there is a continuous, slight increase in the number of people visiting wilderness areas. The user groups showing the most increase are day-hikers and visitors to some off-trail destinations throughout the wildernesses, and horse users in the Lake Chelan-Sawtooth Wilderness. There is also a trend to shorter multiple-day trips. In the past, eight to ten night trips were the most common, while the trips are now typically five to six consecutive nights.

Extent to which non-wilderness lands provide opportunities for unconfined outdoor recreation experiences:

There are approximately 900,000 acres of National Forest System land outside wilderness on the Methow Valley Ranger District. In the summer non-wilderness portions of the district draw hikers, stock users, mountain bikers and more limited motorcycle use. Certain portions also offer regionally significant rock climbing and mountaineering. In the winter the area features outstanding cross-country, backcountry skiing, and snowmobiling

The need to provide a sanctuary for those biotic species that have demonstrated an inability to survive in less than primitive surroundings or the need for a protected area for other unique scientific value or phenomena:***Wildlife***

The PWA provides habitat for grizzly bear (*Ursus arctos*), gray wolf, wolverine (*Gulo gulo*), and other wide-ranging carnivores require large areas of remote, undeveloped habitat for survival. The Granite Mountain area is adjacent to other potential wilderness areas that connect it to the Pasayten Wilderness and thus it provides important habitat for these species. For American marten (*Martes americana*), grizzly bear (*Ursus arctos*), wolverine (*Gulo gulo*), and Canada lynx (*Lynx canadensis*) the wildlife sustainability index is 80.2 (a high relative ranking) and the habitat connectivity index is 36.1 (also a high relative ranking).

Fish

Several native species in the interior Columbia River Basin have demonstrated an inability to survive in less than primitive surroundings, especially the bull trout. In addition to habitat changes on National Forest System lands, other factors off forest such as hydropower generation, hatchery programs, harvest, and changing ocean conditions further challenge the persistence of some far-ranging native species. Broad-scale assessments have demonstrated a positive correlation between unroaded areas and persisting native fish stocks. Often, assessments like these don't differentiate between wilderness and roadless areas; rather they combine the two into an "unroaded" category. These assessments show current strongholds (most secure and robust populations) are dependant on wilderness and roadless areas. Some of the more resilient native fish populations in the Interior Columbia Basin are located in unroaded areas on National Forest System lands.

For the Okanogan-Wenatchee National Forest PWAs were assigned an aquatic ranking based on federally listed and sensitive fish species that are sensitive to human disturbances. A high ranking was assigned when listed fish species occur in the PWA or when ecological process including high quality water help sustain listed fish species downstream of the PWA. All other PWAs are ranked low. This PWA is assigned a high ranking based on these factors.

Rare Plant Species

An analysis was completed to prioritize which PWAs would contribute the most to providing refugia for those plant species on the species of interest/species of concern (SOI/SOC) list. The analysis ranked three factors. The first factor, the total number of sites occurring within the PWA, ranked as low for this PWA. The second factor, which ranked as moderate for this PWA, examined the degree of rarity of any SOI/SOC species present, and also recognized the importance of individual PWAs in supporting a high incidence of populations relative to Washington state as a whole.

PWAs are generally unsurveyed for rare plants due to a relative lack of projects occurring in these areas. Thus an additional factor examined the potential for the PWA to support SOI/SOC species. Based on databases, first the SOI/SOC plant species were identified that are present within a five-mile radius of the PWA, but are not known to occur within the PWA. Then the PWA was analyzed to see if the potential habitat for these species occurs within the PWA. Based on this analysis, this PWA ranks as high.

Finally, a composite score was assigned to each PWA based on combining each of the rankings described above. This PWA ranks overall as moderate priority for preserving rare plant refugia with a wilderness designation.

Ability to provide for preservation of identifiable landforms types and ecosystems:

According to Bailey's Ecoregion Classification, this PWA is in the East Cascades Ecoregion. Wilderness lands are well represented in the East Cascades Ecoregion.

An analysis compared vegetative cover types that are under-represented in wilderness on the National Forest System in Region 6 with those same cover types present in the PWA. Large-scale cover types were available through existing data layers and represent approximately eight percent of the vegetative cover of this PWA (approximately 3,280 acres). These types include forb lands, non-alpine meadows, alpine meadows, and ponderosa pine. Taken as a whole, the contribution of underrepresented vegetation types ranks as low for the portion of this area with underrepresented cover types; however, it ranks as high for the number of acres that are represented within this PWA relative to the other PWAs in the planning area.

Some under-represented cover types fill microhabitats such as riparian areas or perched water tables. Such finer scale cover types well-represented in this PWA include quaking aspen stands. In addition there are sparse amounts of cottonwood.

In particular, the forb land, non-alpine meadow, and aspen cover types would make a significant contribution within the eastern Washington planning area.