

# WILDERNESS EVALUATION

## THIRTEENMILE - 621008

**12,393 acres**

### OVERVIEW

#### History

The first roadless area review and evaluation (RARE I) was completed in 1973 and the Thirteenmile Roadless Area was identified but not chosen for future wilderness study. In 1979, the second roadless area review and evaluation (RARE II) was completed and the Thirteenmile Roadless Area was not recommended for wilderness designation.

The 2006 inventory removed approximately 177 acres from previous inventory due to nonconforming uses such as road construction and logging; 254 acres were added to the previous inventory as they met the criteria for a potential wilderness area as described in Forest Service Handbook (FSH) 1909.12, Chapter 70. The following chart depicts the current 1988 Colville National Forest Land and Resource Management Plan direction for the 2006 inventoried area.

**Table 1--Management area percentages (rounded)**

<b>Colville National Forest</b>				
<b>MA3A Recreation</b>	<b>MA3B Recreation / Wildlife</b>	<b>MA4 Research Natural Area</b>	<b>MA5 Scenic Timber</b>	<b>MA7 Wood/ Forage</b>
2%	68%	13%	1%	16%

#### Location and Access

The area is located 51 miles west of Colville, Washington, and 17 miles southeast of Republic, Washington. The nearest large population center is Spokane, Washington, which is three hours driving time from the area. The southern boundary of the PWA is common with the Colville Indian Reservation. The northern boundary approximately follows the ridge between Thirteenmile Mountain and Granite Mountain. The area is accessed by the South Fork of O'Brien Creek Road (Ferry County Road #99) and tributary National Forest System roads. The Hall Creek Road (Forest Road #2050-600) parallels the east boundary of the area.

## **Geography and Topography**

The Thirteenmile Potential Wilderness Area (PWA) is located in the Kettle Mountain Range, which is the divide between the Columbia River and the Curlew and Sanpoil drainages. The Thirteenmile PWA is in the south central portion of this area and lies on both sides of the hydrologic divide between the Columbia River and the Sanpoil River. Generally, the area is part of the Okanogan Highlands landform province characterized by moderate slopes with broad rounded summits resulting from repeated continental glaciation. The broader valley bottoms are characterized by outwashed terraces. The Kettle Range is an extension of the Monashee Mountains in Canada. The highest elevation within the area is 6,152 feet on Seventeenmile Mountain. The lowest elevation occurs at 3,100 feet on Thirteenmile Creek on the west boundary. There is a significant variation between the east and west half of the PWA. The east half of the area is less dissected than the west half. Annual precipitation for this area is 20 inches.

## **Current Uses**

Uses of the area include occasional mineral prospecting. The area is within the Quartz Cattle Allotment, which is grazed during the summer months. Recreation use within the area is primarily hiking and fall deer hunting.

## **Appearance and Surroundings**

Appearance of the area is one of rolling to moderately steep, wooded mountains, with some vistas available from the open areas on the higher areas and openings on south slopes.

Surroundings viewed from the area are of the distant major drainages and surrounding rolling foothills and mountains, with human activity evident. The Bald-Snow PWA lies immediately to the east and the Cougar Mountain PWA is to the west.

The surrounding areas, other than the adjacent PWAs described, are national forest system lands and the Colville Indian Reservation, both managed for a variety of uses including timber management.

## **Key Attractions**

Attractions within the area are the native plants and wildlife common to the Colville National Forest. There are also scenic views of the Sanpoil Valley and the mixed forest and rangelands of the Colville Indian Reservation available from the higher ridges. An attraction to the area is the large mature ponderosa pine, which is present in the Thirteenmile Creek drainage.

## ***CAPABILITY FOR WILDERNESS***

### **Level of Natural and Undeveloped Environment**

The area has not been significantly modified by humans, and in general is natural appearing; however, livestock grazing is obvious in the west half of the area during a portion of the months of June through October. No permanent improvements exist within

the area. One is seldom more than 1 mile from a road open to vehicles including Bureau of Indian Affairs roads.

Eastern brook trout have been introduced to the creeks. Noxious weed inventory data is not available for this PWA. Noxious weeds introduced in this PWA include bull thistle and St. Johnswort.

Water quality data is not available for most of the PWA; however, due to the relatively low level of disturbance water quality is assumed to be high. Hall Creek has 1.8 miles classified as Category 1, which means the water meets tested standards.

The Thirteenmile PWA is minimally impaired by light pollution from the Republic and Colville area. The entire PWA rates as Class 2 on the Bortle scale. 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. No light domes from population centers are visible.

### **Level of Outstanding Opportunities for Solitude or Primitive and Unconfined Recreation**

The principle attraction is the open knobs and ridge tops, which afford views of the Kettle Crest and Okanogan Highlands in the west half of the area. Absence of water on open knobs and ridge tops or along the trail require a certain degree of self-reliance on the part of hikers and horseback riders.

Opportunities for winter sports are limited due primarily to the rugged terrain. Camping opportunities are also limited due to lack of water.

Recreation opportunities are present in the form of hunting, cross country hiking and trail riding. There are no outstanding primitive recreational opportunities or features in the area.

A sense of solitude can be reached on the interior portions of this area; however, along the periphery of this area sights and sounds of management activity and modified landscapes can be seen and heard.

### **Special Features**

There are three proposed Research Natural Areas (RNA) within the Thirteenmile Potential Wilderness Area. Hall Ponds proposed RNA is located in both the Thirteenmile PWA and Bald Snow PWA. This 629-acre RNA protects mid-elevation fresh water wetland habitat. Fire Mountain Proposed RNA is also located in the Thirteenmile PWA. This 1,457-acre RNA protects habitat types that include Douglas-fir/pinegrass community, ponderosa pine/pinegrass community, and subalpine fir/huckleberry community snowberry phase.

The peaks of the Kettle Crest typify the Okanogan Highland ecoregion.

The PWA has a large area of lynx habitat (over 12,000 acres) and small amounts of wolverine and American marten habitat.

One cultural site within the PWA is a rock feature known to be of particular spiritual significance to American Indian tribes.

**Manageability of Boundaries**

The boundary of the Thirteenmile PWA follows identifiable topographic features for about half the circumference of the PWA, including following a creek along a portion of the north boundary, skirting a road along the east boundary, and adjoins the Colville reservation on the south boundary. The remainder of the boundary follows irregular lines that likely skirt around old harvest units.

**AVAILABILITY FOR WILDERNESS**

**Recreation**

Recreation opportunities are present in the form of hunting, day hiking, mountain biking, trail riding, and backpacking (extended day). The most outstanding primitive recreational feature of the area is the Thirteenmile Trail, which follows open slopes and ridgeline for 16 miles. The area is closed to snowmobile use.

The area contains Thirteenmile #13 and Bearpot #19 trails. All trails are open to hikers, stock use, and mountain bikes. They are all closed to motorized vehicles. Trails within the area receive moderate use from late spring to late fall.

Change to wilderness designation would result in prohibiting mountain bikes.

The Thirteenmile PWA, which is adjacent to the Cougar Mountain PWA, is most closely associated with the town of Republic and is accessed off Highway 21, a major north south highway. A small campground just off the highway also serves as the trailhead. The ease of access and availability of nearby campgrounds, coupled with the scenic beauty of the area, would likely draw media publicity if the area were to be designated as wilderness. There would likely be modest increases in tourism-based use on the two trails in the area.

In combination with the Cougar Mountain and Bald Snow PWAs, the Cougar Mountain PWA provides one of the best opportunities for wilderness-oriented recreation on the Colville National Forest. While displacement of other users is an issue in the Bald Snow PWA, it is less of a concern in this PWA due to light use by mountain bikers. Taken in isolation, this PWA would not provide a significant contribution to wilderness recreation.

**Table 2--Miles of recreation trails**

Motorized Trails	Non-motorized Trails	Snowmobile Trails
0	11	0

**Wildlife**

The Thirteenmile area spans about 3,000 feet of elevation and contains mid-and higher elevation habitats, and the wildlife species present reflect this: nearly all mammal and bird species that occupy this elevation band on the forest probably inhabit the area during some part of the year. None of the species that require secluded habitat currently reproduces in the area. Woodland caribou did not occupy the area within the past century; the last record of a grizzly bear on the Kettle Crest (1950s) came from near this area; gray wolves

inhabited Ferry County and probably at least moved through the area; no verified records of wolverine come from this area.

Golden eagles have been sighted but are not recorded as nesting.

To the east and west lie two other proposed wilderness areas. Road densities to the north and south are fairly high due to harvest activities on both National Forest System land and the Colville Indian Reservation. The greatest benefits from designating the area as wilderness would be preventing road construction, benefiting those species that depend on secluded habitat and high quality forage (less affected by noxious weeds that often spread along new roads).

The higher-elevation, eastern half is within a lynx analysis unit, though no recent sightings have come from this area. No major fires have affected the Thirteenmile area in the past two decades. If designated as wilderness, there would be continued reliance on natural processes to create the boom/bust of young stands that supply good foraging habitat.

The entire area contains summer range for big game and consists of large patches of cover and large patches of open grassland or rocks. Some of the large patches of cover on the drier sites have grown too dense to provide good habitat. Introducing fire without prior thinning of the understory in most of these dense stands would probably result in a stand-replacement fire. Because much of this PWA lies in management areas that currently do not allow timber harvest, designating the area as wilderness would not substantially decrease management options.

Many of the higher ridges and saddles and the subalpine areas support open stands of Douglas-fir, subalpine fir, and other species that support blue grouse. Prescribed fire could be used as the primary management tool in these areas, which could become more problematic with wilderness designation.

Though some stands of larger trees exist none are considered late successional stands.

The nearly three square miles of area with current management allocations allowing timber harvest mostly lie on north aspects and drain into Ninemile Creek or South Fork Ninemile Creek. Loss of habitat management via timber harvest in these areas would not have a significant negative or positive effect to wildlife species that inhabit the area. However, roading and harvest of PWAs is currently curtailed under the 2001 Roadless Rule.

The PWA's 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 the 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)	Percent Total Forest Habitat in Evaluation Area
Grizzly bear	NA	NA	NA
Canada lynx	174	1	1
Wolverine	9,331	1	1.2
American marten	14	3	<1

## Water and Fish

The Thirteenmile PWA is located in Sanpoil subbasin (4<sup>th</sup> HUC). The area is drained by Thirteenmile and Ninemile Creeks (6<sup>th</sup> HUCs), which are tributaries of the Sanpoil River and Upper Hall Creek (6<sup>th</sup> HUC) which drains into the Columbia River.

Stream surveys were conducted in 1995 on Thirteenmile Creek. There was an abundance of pools and large woody debris. Parameters met INFISH Riparian Management Objectives. Brook trout were the only fish found in Thirteenmile Creek. Kokanee and adfluvial rainbow trout have been found during adfluvial trapping in 2008 near the mouth of Thirteenmile Creek. North Fork Hall Creek was surveyed in 1998. Large woody debris numbers met the INFISH Riparian Management Objectives. Eastern brook trout and interior redband trout were found in the North Fork of Hall Creek.

All 6<sup>th</sup> field watersheds have been analyzed for vegetation and road conditions. When vegetation conditions and road related effects are considered cumulatively, subwatersheds were rated poor. This is due to past harvest activities, livestock grazing and high road densities.

The habitat in the O'Brien, Upper Hall and Ninemile Creek watersheds are all located above natural falls that prevents access to bull trout from all habitat located on National Forest System lands.

This habitat is not considered essential to the recovery of the bull trout, which has been observed within the Lake Roosevelt occasionally in the past. This is due to the natural blockage to a majority of this habitat to utilization by bull trout. There are no populations of westslope cutthroat trout or pygmy whitefish in these watersheds.

Wilderness designation would protect the basic ecological functions of these tributaries. This objective could also be accomplished without wilderness designation if the proposed PWA remained in an unroaded condition. A degradation of riparian and aquatic processes is expected if management actions, such as road building and timber harvest, are approved by the Regional Forester or Chief in the future. The adverse effects of such actions could extend beyond the boundaries of the PWA and continue throughout the 6<sup>th</sup> field HUCs.

There are no existing power withdrawals, proposed impoundments or known Federal Energy Regulatory Commission permits or licenses outstanding.

The PWA has a water source protection area totaling 2,864 acres of stream that contributes to a non-community, non-transient water system for Grand Coulee Dam.

## Range

The area contains one domestic livestock grazing allotment. This allotment is grazed under a deferred rest rotation management system. There are no range improvements within the area.

**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
11	100	15	0

## Vegetation and Ecology

Vegetation in the area is dominated by climax forests of Douglas-fir, western larch and ponderosa pine with interspersed grassland openings. Forest species that occupied the areas after fire have resulted in scattered stands of pole-sized western larch, lodgepole pine and ponderosa pine trees. Other vegetation present is bunchgrass and forbs on the drier southern exposures and hardwood brush and forbs on the northern exposures. Evergreen ceanothus is a dominant shrub on the granitic slopes of Fire Mountain. Stream courses and other wet areas contain western red cedar, Engelmann spruce, subalpine fir and scattered hardwood trees. Numerous forb species are present in these wet areas. The forested ridgetop vegetation is of the same general composition as described for north and south slopes. The vegetation on the ridges is more scattered due to the thin soil found on the exposed rock outcrops. There are areas occupied by grasses and forbs on higher elevation southern exposures.

Plant communities present are primarily ponderosa pine-Douglas-fir/bluebunch wheatgrass, Douglas-fir/pinegrass, Douglas-fir/ninebark, Douglas-fir/huckleberry, subalpine fir/pinegrass, subalpine fir/bunchberry dogwood, and subalpine fir/huckleberry

Generally, the priority for restoration treatments occurs within the wildland urban interface (WUI) or within the dry and mesic forest groups. The dry forest group occurs on approximately 57 percent of the PWA. Because WUI is not represented in this PWA, the prohibition on restorative treatments is of less of a concern.

### 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 ft<sup>3</sup>/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 (less than 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	0%	Total WUI	0%
	Cold Dry	2%	WUI in Dry and Mesic Forest	0%
	Cold Moist	38%		
	Mesic	0%		
	Dry	57%		
	Non-forest	2%		

**Fire**

Much of the area has large ponderosa pine stands that historically would have supported a frequent fire interval. The Republic Ranger District has implemented a large prescribed fire program in this area to maintain the structure of the ponderosa pine stands and to reduce the risk of wildfire to the adjoining Colville Indian Reservation.

**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.”

An aerial survey of this PWA was completed in 2007. Mountain pine beetles have been active in lodgepole pine stands since about 2003. Mountain pine beetles can attack and kill many species of pines, but are most closely associated with lodgepole pine. Lodgepole pine stands that are older than 80 years, with an average dbh of eight inches or greater are highly likely to experience outbreaks. When a mountain pine beetle outbreak occurs in a lodgepole pine stand, the beetles preferentially attack the largest diameter pines. Over the course of an outbreak, 85 percent or more of the large diameter trees will be killed and

progressively smaller proportions of the smaller diameter pines. Fire that burns in lodgepole pine stands causes serotinous cones to open, regenerating a new lodgepole pine stand. About one-third of the lodgepole pine stands in this general vicinity initiated following fire in 1929, and are reaching a susceptible age and size. About two-thirds of the lodgepole regenerated following wildfires in 1988 and 2001. These stands are dominated by lodgepole pine, and will be susceptible to mountain pine beetles in about 2070.

Douglas-fir dwarf mistletoe and western larch dwarf mistletoe probably occur in approximately 50 percent of the Douglas-fir and larch stands in the Republic planning areas.

Armillaria root disease caused by *Armillaria ostoyae* is currently not a major cause of tree mortality in this PWA. The fungus is undoubtedly present in most of the stands especially those with Douglas-firs and/or grand firs but it is in equilibrium with the hosts. If stands in this PWA were to be logged or if other mortality agents were to kill large numbers of firs armillaria root disease would become a serious tree killer. The fungus gains energy from colonized roots and stumps and spreads to infect and kill adjacent trees, especially Douglas-firs.

#### **Threatened, Endangered, and Sensitive Plant Species**

There are no inventoried rare plant species in the Thirteenmile PWA.

#### **Noxious Weeds**

Noxious weed inventory data is not available for this PWA. Noxious weeds established along the Thirteenmile Trail include bull thistle, Canada thistle, diffuse knapweed, and St. Johnswort.

#### **Minerals and Soils**

The area is characterized by extensive shallow soils and rock outcrops. Soils within the area are primarily derived from weathered andesite, quartzite, granite, glacial till, volcanic ash, and loess deposits. Steeper south and west aspects have less evidence of ash deposition due to past erosion. The ash material overlies rocky glacial till derived from granitic rock on the east half of the area and volcanic andesite rock on the west half. Outwash and lake bed deposits occur adjacent to streams. On forested sites the more recent glaciation and ash falls have resulted in relatively undeveloped soils. More developed soils with a dark surface layer occur on south and west aspects dominated by grass understory.

The Thirteenmile PWA straddles the Sherman fault, a significant structural feature that separates the Republic graben, a down-dropped structural basin which has been infilled with sedimentary and volcanic rocks, on the west from the Kettle Metamorphic Core Complex, an area where relatively deep crustal rocks have been exhumed as a result of major extensional tectonics, on the east. The western half of the area is underlain by the Eocene Sanpoil Volcanics associated with the Republic Graben. Opposite the Sherman fault in the Kettle Metamorphic Core Complex, the eastern half is underlain by limited pre-Tertiary gneiss that has been largely intruded by Tertiary igneous intrusive rocks of varying composition.

Historical mining claim records indicate that prospecting and exploration has been focused within the center of the Thirteenmile area, mainly along the trace of the Sherman fault east of Thirteenmile Mountain. While the Thirteenmile area does not contain any significant historic prospects or mines, the Iron Mountain area on the north has had some mineral exploration, development, and limited production. Both base (copper, lead, and zinc) and precious (gold and silver) metal occurrences along quartz veins and silicified shear zones have been documented at historic prospects and mines in the Iron Mountain area (Grant, 1982). At present (4/2008), there are no active mining claims within the Thirteenmile PWA.

Mineral resource assessments conducted by the U.S. Geological Survey indicate that the Thirteenmile PWA has been identified as favorable for the occurrence of porphyry-related polymetallic veins and epithermal gold deposits (Box and others, 1996; Bolenus and others, 2001). Consequently, there is a moderate to high potential for the occurrence of gold and silver deposits in the western and central parts of the Thirteenmile PWA. Furthermore, there is a low to moderate potential for the occurrence of uranium in the eastern part of the PWA, which is underlain by the gneissic and intrusive igneous rocks of the Kettle Metamorphic Core Complex (Grant, 1982; Bernardi and others, 1982).

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 to a low potential for the occurrence of coal and oil and gas resources and a low or unknown potential for geothermal resources.

### **Cultural and Heritage Resources**

There are four known cultural resources within the Thirteenmile area. One site is a rock feature known to be of particular spiritual significance to American Indian tribes. One site is the remnant foundation of a lookout. The remaining sites are associated with historic themes of grazing and mining. Unless a site has been determined to be ineligible for the National Register, it is managed as a significant site until such a determination is made.

### **Land Uses and Special Uses**

Grazing allotments are managed through term grazing permits.

### **Private Lands**

The Colville Confederated Tribe has expressed concern for management of excess fuel along the shared boundary. Mechanical treatments of vegetation would be precluded by wilderness designation.

## ***NEED FOR WILDERNESS***

### **Location and size of other wildernesses in the general vicinity, and distance from area and population centers**

The Thirteenmile PWA is approximately 75 air miles west of the 41,335 acre Salmo-Priest Wilderness on the Colville National Forest, 90 air miles east of the 529,477 acre Pasayten Wilderness, and 85 air miles northeast of the 151,435 acre Lake Chelan-Sawtooth

Wilderness. The drive time from Spokane to the Salmo-Priest Wilderness is approximately 2.5 hours. The drive time from Spokane to the Thirteenmile PWA is approximately 3.5 hours.

There are only two relatively small congressionally designated wilderness areas within a three-hour drive of the Spokane area, including the Salmo-Priest Wilderness. In ranking this PWA for its potential to provide a high quality wilderness recreation setting it ranked as high when considered in concert with the Bald Snow and Cougar Mountain PWAs. The area offers a high quality setting and destinations that would attract wilderness users, and there are interconnected trail systems that facilitate both day trips and overnight use. This area is relatively remote and is accessed primarily through the adjacent PWAs. If considered in isolation, the ranking for this area would have been moderate due to only having two trails.

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

The visitor pressure on the wilderness areas mentioned above is low relative to other wilderness areas in the region. The Pasayten and the Salmo-Priest have experienced a slow increase in use, but they are still below capacity levels except for some popular spots. Trends for wilderness use show that length of stay has shortened, there is more day use, and visitors are not traveling as far into the wilderness. However, the projected population increase for 2000 through 2030 in Ferry, Pend Oreille, Stevens, and Spokane Counties ranges from 40 to 67 percent. With this increase in population comes the potential for overuse and crowding in the Salmo-Priest Wilderness.

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

There are six other PWAs within 15 miles of the Thirteenmile PWA (Bald-Snow, Cougar Mountain, Hoodoo, Profanity, South Huckleberry, and Twin Sisters), which encompass an additional 109,440 acres. This acreage, in combination with other Colville NF PWAs and designated wilderness, totals approximately 226,000 acres. The only designated wilderness within the Colville National Forest is the Salmo-Priest.

Another consideration is off-highway vehicle recreation, which has increased substantially in the last 30 years and is projected to continue increasing in the future. This use often conflicts with non-motorized recreation in the forest, creating need for areas where motorized recreation is prohibited.

Mountain Biking, riding off-highway vehicles (OHVs) and snowmobiles has increased in popularity and demand on the national forests. Demand for primitive and semi-primitive recreation opportunities outside of designated wilderness is growing for these users, as these opportunities are restricted in designated wilderness areas. With declining trail maintenance, horse riders have become more dependent on trails outside of wilderness that can be more easily maintained with chainsaws, and where there is no party size limitation.

**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 has a large area of lynx habitat (over 12,000 acres) and small amounts of wolverine and American marten habitat. The wildlife sustainability index is 12.6 (a moderate relative ranking) and the habitat connectivity index is 11.9 (also a moderate relative ranking).

**Fish**

This habitat is not considered essential to the recovery of the bull trout. Bull trout and aquatic focal species naturally cannot access most of the habitat in this PWA. As a result of this analysis, the lack of natural access to this PWA in the Ninemile and Hall Creek watersheds, the existing subpopulation of interior redband trout and poor to fair habitat conditions indicates that this PWA should be considered a moderate priority for wilderness classification.

**Table 6--Ninemile Creek Watershed**

<b>Focal Species</b>	<b>Miles of Habitat</b>	<b>Percent Total Forest Habitat in Evaluation Area</b>	<b>Vegetation Score</b>	<b>Overall Road Density Score</b>	<b>Habitat Priority Ranking (1=high, 2=mod., 3=low)</b>
Bull trout	0	0	-1.00	-1.00	3
Westslope cutthroat trout	0	0	-1.00	-1.00	3
Interior redband trout	0	0	-1.00	-1.00	3
Pygmy whitefish	0	0	-1.00	-1.00	3

**Table 7--Thirteenmile Creek Watershed**

<b>Focal Species</b>	<b>Miles of Habitat</b>	<b>Percent Total Forest Habitat in Evaluation Area</b>	<b>Vegetation Score</b>	<b>Overall Road Density Score</b>	<b>Habitat Priority Ranking (1=high, 2=mod., 3=low)</b>
Bull trout	0	0	-1.00	-0.10	3
Westslope cutthroat trout	0	0	-1.00	-0.10	3
Interior redband trout	0	0	-1.00	-0.10	3
Pygmy whitefish	0	0	-1.00	-0.10	3

**Table 8--Upper Hall Creek Watershed**

<b>Focal Species</b>	<b>Miles of Habitat</b>	<b>Percent Total Forest Habitat in Evaluation Area</b>	<b>Vegetation Score</b>	<b>Overall Road Density Score</b>	<b>Habitat Priority Ranking (1=high, 2=mod., 3=low)</b>
Bull trout	0	0	-1.00	-0.10	3
Westslope cutthroat trout	0	0	-1.00	-0.10	3
Interior redband trout	36	0	-1.00	-0.10	2
Pygmy whitefish	0	0	-1.00	-0.10	3

### **Threatened, Endangered, and Sensitive 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 also ranked as low 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 low.

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

The Hall Ponds proposed Research Natural Area preserves a mid-elevation freshwater wetland. The proposed Fire Mountain RNA protects habitat types that include Douglas-fir/pinegrass community, ponderosa pine/pinegrass community, and subalpine fir/huckleberry community snowberry phase.

### **Ability to provide for preservation of identifiable landform types and ecosystems**

Designated wilderness is under-represented in the Okanogan Highlands 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 20 percent (approximately 2,480 acres) of the vegetative cover if this PWA. These types include forb lands, non-alpine meadows, and ponderosa pine. Taken as a

whole, the contribution of underrepresented vegetation types ranks as high for the portion of this area with underrepresented cover types, but as moderate 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 represented in this PWA include sparse amounts of cottonwood and aspen.

In particular, the forb land cover type, which comprises approximately 1,800 acres in this PWA, would make a significant contribution within the eastern Washington planning area.

DRAFT