Wilderness Evaluation

Salmo-Priest Adjacent – 621981

16,765 acres

OVERVIEW

History

This area was identified in the initial roadless area review and evaluation (RARE I), and a large portion of the area was designated as the Salmo-Priest Wilderness Study Area. Portions of the original area remained as adjacent unroaded areas. In the second roadless area review and evaluation (RARE II), the adjacent areas were re-evaluated and recommended for non-wilderness. The Washington State Wilderness Act of 1984 designated a portion of the area as the Salmo-Priest Wilderness.

The 1988 Colville National Forest Land and Resource Management Plan distinguished between three adjacent areas with separate wilderness evaluations—Salmo-Priest A, Salmo-Priest B (SPA/B), and Salmo-Priest C (SPC). The 2006 inventory identified more area adjacent to the Salmo-Priest Wilderness that met the criteria for a potential Wilderness Area. For this Evaluation Salmo Priest A, B, and C and the new areas will be considered together. Salmo Priest A and B are contiguous and narratives and tables may be combined for that piece.

The 2006 inventory removed approximately 495 acres from previous inventory due to nonconforming uses such as road construction and logging; and added 3,238 acres 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 for the Salmo-Priest A/B portion, the Salmo-Priest C portion, and the newly identified areas.

Table 1--Management area percentages - SP-A/B

Colville National Forest						
MA2 Caribou habitat	**MA4** Research Natural Area	**MA5** Scenic/ timber	**MA6** Scenic/ winter range	**MA7** Wood/ forage	**MA8** Winter range	**MA11** Semi-primitive, non-motorized recreation
15%	3%	21%	15%	5%	5%	35%

Table 2--Management area percentages - SP-C

Colville National Forest
MA2 Caribou habitat
100%

Table 3--Management area percentages - SP-Adjacent (new areas)

Colville National Forest			
MA2 Caribou habitat	**MA3A** Recreation	**MA5** Scenic/ timber	**MA8** Winter Range
86%	3%	10%	1%

Location and Access

SPA/B

The area is located in the northeast corner of Pend Oreille County, Washington, 120 miles north of Spokane, Washington. Primary access is five miles east of Metaline Falls, Washington via County Road 9345 and 20 miles north of Metaline Falls, via State Highway 31, Slate Creek Road (Forest Road 3155000), and Forest Road 3155206.

The North Fork Trail (Forest Trail 507) and Halliday Trail (Forest Trail 522), Red Bluff Trail (Forest Trail 553), and Slate Creek Trail (Forest Trail 525) also access the area.

SPC AND NEW AREAS

The area is located in the northeast corner of Pend Oreille County, Washington, 115 miles north of Spokane, Washington. Primary access is 28 miles northeast of Metaline Falls, Washington via County Road 9345 and the Sullivan Creek Road (Forest Road 2200000).

Geography and Topography

SPA/B

This area is located in the southwest edge of the Selkirk Mountains, which extend north into British Columbia. This mountain range lies between the Okanogan Highlands landform province on the west and the Rocky Mountain trench on the east. It lies on the west slope of the divide between the Pend Oreille River to the west and Priest River area to the east. It lies mostly between Lead Creek and Roaring Creek, two to four miles north of Gypsy Peak. The area is bounded on the southeast by the Salmo-Priest Wilderness, and on the northwest by the Slate Creek Road (Forest Road 3155000) and associated timber harvest units. The southern boundary parallels private land along County Road 9345. Except for the higher peaks, the area was repeatedly covered by continental glaciers. The dominant topographic feature of the area is a ridge running from the southeast to the northwest between Lead Creek and Roaring Creek and Crowell Mountain and north fork of

Sullivan Creek. The south half of the area is a series of sharp ridges with the north half being less abrupt and the ridges more rounded in appearance. Elevation ranges from about 3,800 feet to 6,000 feet.

SPC and New Areas

The area is bounded on the north and east by Deemer Creek, on the south by timber harvest areas in Leola Creek, and the Salmo-Priest Wilderness on the west. This area was repeatedly covered by continental glaciers. The dominant topographic feature of the area is Leola Peak and its side slopes. Elevation ranges from 5,400 feet to 6,401 feet.

Current Uses

SPA/B

There is very little current human use of this area. The recreational use is low due to dense timber stands, steep slopes and the difficulty of access.

This area is a heavily forested moderately steep side slope. The damp, dense conifer understory makes travel very difficult. The only exception is a small part of the ridgetop where it is more open due to a large fire in the late 1920s or early 1930s. This semi-open area offers some views over the surrounding area and into Canada.

The main use of this area is for recreation. Approximately 85 to 90 percent of recreational use occurs within 200 feet of the four trails in the area. Hunting accounts for most use off the trails.

SPC AND NEW AREAS

The principle recreational use of this area is for hunting.

Appearance and Surroundings

SPA/B

The surrounding area consists of British Columbia, Canada, to the north, the Salmo-Priest Wilderness to the east, and roaded areas lying to the west and south. Beyond these areas are private lands along the major streams to the west and south.

Because of the clearcutting adjacent to this area, the area appears disturbed. Views out of this area are toward forested areas where human activities are obvious. This is due to the area's topographic position relative to the surrounding area.

This area is mostly forested. There is a wide variety of views from the trails, varying from only close views to 10 to 12 mile views across the Pend Oreille valley as the trails cross some of the ridges.

SPC AND NEW AREAS

This area is heavily forested. The dense conifer growth in the immature spruce/fir appears dark, damp and makes travel difficult. The climax stands of cedar/hemlock are shady, cool, damp, and partially open underneath. The few climax stands of fir/spruce are cool and damp but more open to sunlight than the cedar/hemlock stands. The climax spruce/fir stands have little understory.

To the north and west of this PWA is the Salmo-Priest Wilderness, which is in a near pristine condition. The rest of the surrounding area is roaded and has been used for a variety of purposes including timber harvest and semi-primitive roaded recreation.

Key Attractions

SPA/B

The main attraction in this area is the semi-open ridge in the east-central portion of the area. This is where most of the hunting, hiking, and camping takes place. The visitors are usually not headed specifically to this area but tend to get into it by coming out the open ridge (Gypsy Ridge) from the south.

Wildlife here may include black bear, white-tailed and mule deer, elk, cougar, bobcat, and many small animals and birds common to the Colville National Forest. The gray wolf and grizzly bear have been reported in this vicinity.

An occasional grizzly bear may roam through the area, though sightings here are rare because of inaccessibility. Cougar, bobcat, and moose are also present.

The area has a good representation of clear streams, the principle ones being The North Fork of Sullivan Creek, Threemile Creek, Uncas Gulch, Slate Creek, and Elk Creek. There are no named lakes in the area. Several small ponds and wet areas are present, some of these resulting from beaver activity

SPC AND NEW AREAS

The main attraction to this area is the few stands of near climax cedar/hemlock and spruce/fir forest. These stands are not visited often, due to difficulty of access.

CAPABILITY FOR WILDERNESS

Level of Natural and Undeveloped Environment

SPA/B

Long-term ecological processes have shaped the vegetative development of this area. It appears that this area burned in about 1900; current vegetation has developed through natural succession from that time. Control of wildfires in the area may have influenced the course of natural succession.

There are some small test holes where minerals were sampled between 1900 and 1940, but most of these are shallow, hand-dug troughs not apparent to the casual observer.

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. Threemile Creek has 1.7 miles classified by the Washington State Department of Ecology as Category 2, waters of concern, which means that there is some evidence of a water quality problem, but it does not require a water quality cleanup plan. Slate Creek has 2.4 miles classified as Category 1, and Uncas Gulch Creek has one third mile classified as Category 1, which means that the water meets tested standards.

Noxious weeds inventory data is not available for this area.

This portion of the Salmo-Priest Adjacent PWA is impaired by light pollution from the Metaline and the Trail, British Columbia areas. The northeastern portion of SPA/B rates a Class 2 on the Bortle Scale. The central portion of SPA/B (approximately 50 percent of SPA/B PWA) rates a Class 3 on the Bortle Scale, whereas the southwestern corner rates as a Class 4.

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. 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. Light domes from population centers may appear on the horizon (10-15 degrees above horizon). Visual observing is still relatively unimpaired. Time-lapse photography could be impaired by light pollution. A Class 4 Rural/Suburban Transition Sky exhibits fairly obvious light-pollution domes over population centers in several directions. The Milky Way well above the horizon is still impressive but lacks all but the most obvious structure. Clouds in the direction of light pollution sources are illuminated but only slightly so, and are still dark overhead. Modest to serious impact to deep sky observing and imaging occurs.

SPC AND NEW AREAS

Because of the clearcutting adjacent to this small area, the area appears disturbed. Because of this area's small size and its topographic position, most views out of the area are toward places where human activities are obvious.

Noxious weed inventories are not available for this area.

This portion of the Salmo-Priest Adjacent PWA is slightly impaired by light pollution from the Metaline and the Trail, British Columbia areas. The eastern portions of SPC and the new areas rate as a Class 2 on the Bortle Scale. The two small westernmost outlying portions rates as a Class 3 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. 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. Light domes from population centers may appear on the horizon (10-15 degrees above horizon). Visual observing is still relatively unimpaired. Time-lapse photography could be impaired by light pollution.

Level of Outstanding Opportunities for Solitude or Primitive and Unconfined Recreation

SPA/B

There are some opportunities for primitive experiences of camping, backpacking, and scenic viewing on Gypsy Ridge.

The area is made up of wooded ridges and broken country running generally in a southwesterly direction. Although views of the surrounding terrain are limited from the area's four recreation trails, the pristine forest affords an opportunity to experience a sense of total solitude.

The four trails receive a moderate amount of use with a fair chance of hikers encountering another person; however, one may experience solitude in the large trail-less portions of the area.

Noise from adjacent logging is noticeable in the northern part of the area.

The user either stays on the existing trails, which wind along heavily timbered ridges, or heads cross-country off the trails, through thick and brushy undergrowth. Going cross-country in this area is challenging because of steepness and dense areas along streams. The trails in this area offer a moderate challenge because of the distance between trail heads.

Primitive recreation opportunities in this area include hiking (day use and overnight), hunting, gathering forest products, viewing (both scenery and wildlife), tent camping, photography, and horseback riding, or camping. All of these activities would be expected to increase slightly if the area were designated as wilderness.

The streams are not large enough for any water sports and they have very low fisheries value in their current condition. The area is too steep for almost all winter activities.

SPC AND NEW AREAS

This area presents very few opportunities for challenging experiences. In some of the dense areas it should be considered a challenge just to get through them.

This area provides very little opportunity for a sense of solitude and isolation due to its small size and nearness to external influences.

Special Features

SPA/B

Halliday Fen was designated MA-4 Research Natural Area (RNA) by the Colville National Forest Land and Resource Management Plan in 1988. The 727 acre established RNA protects habitat types, which include western red cedar/queen's cup beadlily community, western red cedar/devil's club community, western red cedar hemlock/queen's cup community, and a marl fen. Several sensitive plants documented from Halliday Fen include yellow sedge (*Carex flavra)*, crested shield-fern (*Dryopterus cristata*), green keeled cottongrass (*Eriophorum viridicarinatum*), water avens (*Geum rivale*), marsh muhly (*Muhlenbergia glomerata*), hoary willow (*Salix candida*), McCall's willow (*Salix maccalliana*), northern willow (*Salix pseudomonticola*), black snakeroot (*Sanicula marilandica*), and naked kidney lichen (*Nephroma bellum*). One additional sensitive plant is known to exist in this PWA, tree-like clubmoss (*Lycopodium dendroideum*).

SPC AND NEW AREAS

There are some opportunities for viewing scenery and photography from Leola Peak. One little known invertebrate, the Magnum mantle slug (*Magnipelta mycophaga*, known to only three locations, inhabits the subalpine forests here.

There are two known cultural resources within the Salmo-Priest AB area. These sites are associated with historic mining and/or trapping. 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.

There is one known cultural resource within the Salmo-Priest C area. This site is the remnants of a lookout. This site has not been evaluated for eligibility to the National Register.

Manageability of Boundaries

SPA/B

The well-defined northern boundary is shared with Canada, with no current coordination on area planning or management. The year-round stream of Lead Creek makes an easily identified boundary. The eastern boundary is shared with the Salmo-Priest Wilderness and follows minor ridgelines.

The boundaries (north and west) do not cause conflicts with outside uses. They can easily and accurately be described, established, and recognized on the ground. The boundaries constitute a barrier to prohibit use, but do not act as a shield against sights and sounds of non-wilderness use nearby.

The west and south boundaries are in a good location for management of this area in a natural, untrammeled, condition, and are easy to describe, would be easily established and would be recognizable on the ground. However, Public Utility District No. 1 (PUD) of Pend Oreille County maintains the water source for the town of Metaline Falls just south of the area on the north fork of Sullivan Creek. The boundary of this area (southern) could cause conflicts in public use, should this area be designated wilderness. This potential conflict exists where the diversion for the Metaline Falls municipal water source is located adjacent to the PWA boundary.

SPC AND NEW AREAS

The northwest boundary joins along two ridges that form Leola Peak. This boundary is logical and would be reasonably easy to locate on the ground. The east boundary is midslope above Deemer Creek and would be very difficult to locate on the ground. The southeast border is again mid-slope but runs along the top of several old timber cutting units. This would be fairly easy to locate and recognize on the ground.

This entire area is subject to the noise of motorized forest activities because the two sides (east and southwest) face areas that are currently under intensive multiple use management.

AVAILABILITY FOR WILDERNESS

Recreation

All Areas Combined

The Kettle Falls and Metaline Chamber of Commerce offices promote the opportunity for outdoor recreation activities in the vicinity, but do not directly promote this PWA. This PWA is proximate to the International Selkirk Loop drive, and hiking, horseback riding, and mountain biking are promoted in the Selkirk Loop brochure and website. Two trailheads entering the PWA are easily accessed from the loop drive. Due to the proximity to the Salmo-Priest Wilderness, the variety of trailed opportunities, and the prominent peaks this area would be likely to receive media coverage promoting visitation if the area is designated as wilderness. This could lead to a moderate increase in use.

Due to the existing pattern of use being primarily wilderness related, with only low levels of mountain bike use, wilderness designation would benefit management of the adjacent wilderness area, and would not adversely affect mountain bikers as a whole.

SPA/B

Recreation in this area includes hiking, horseback riding, mountain biking, and hunting. The Red Bluff (#553) and Haliday (#522) trails are used for day hikes and mountain biking for locals and those visiting Sullivan Lake recreation areas because they are close by and the first to melt out in the spring. All of these trails tie into the North Fork Sullivan Creek Trail, which is partially located within the existing Salmo-Priest Wilderness. All of these trails have very small trailheads, with room for one or two small cars. None of the trailheads are designed for equestrian hauling equipment. The Slate Creek Trailhead is behind a locked gate for all but the high summer months. In addition, Slate Creek Trail (#525) accesses the northern portion of SPB, which is accessible on the Slate Creek Road, which is opened after July 1. Snowmobile use is allowed in parts of this PWA.

Table 4--Miles of recreation trails – SPA/B

Motorized Trails	Non-motorized Trails	Snowmobile Trails
0	16	0

SPC AND NEW AREAS

The area is most suited for backcountry hiking, hunting, and access to undeveloped areas on Leola Peak and Gypsy Ridge. It is not highly desirable for camping because of the lack of drinking water. There are some opportunities for viewing scenery and photography from Leola Peak.

Table 5--Miles of recreation trails – SPC and new areas

Motorized Trails	Non-motorized Trails	Snowmobile Trails
0	1	0

Wildlife

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 the PWA.

Table 6--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	16,147	1	NA
Canada lynx	112	2	<1
Wolverine	16,147	1	2
American marten	806	1	3.9

SPA/B

This area is inhabited by a large number of species of wildlife. Habitat improvement opportunities in this area would mainly be creating small openings in the dense timber stand to provide more food. Projects improving the extent and condition of riparian habitats can improve many non-game species habitats.

Habitat for pileated woodpeckers, American marten, and goshawks exists in this area. Protection of elk winter range is important in this area. Three to four hundred acres have been set aside here as a management area for old growth dependent species (this is commonly referred to as a barred owl management area). This area will, in time, support a climax vegetation community and its associated wildlife.

Habitat for the threatened grizzly bear (Salmo-Priest Grizzly Bear Management Unit) and the endangered caribou (Salmo Caribou Management Unit) has been identified and inventoried within the area. Gray wolves may occasionally use the area, but at this time animals seen on the Colville National Forest are transient, moving over large areas. Habitat is available for Canada lynx within this PWA. One Lynx Analysis Unit (LAU) has been mapped within this area: Salmo LAU. Habitat also exists for wolverine.

Habitat manipulation would be precluded by wilderness designation. Potential management activities necessary to maintain threatened, endangered or sensitive species include:

Selkirk Mountain Caribou: 1) maintain arboreal lichen producing habitat at high elevations, 2) regulate fires in subalpine habitat, 3) provide seclusion, and 4) use prescribed fire, timber harvest, or natural fires to convert lodgepole pine stands above 4,200 foot elevation to climax forest types.

Grizzly Bear: 1) provide seclusion by minimizing new roads in the area, 2) maintain or enhance habitat through the use of prescribed fire, regulated timber harvest, letting some natural fires burn and vegetation seeding or planting.

Gray Wolf: 1) provide seclusion, 2) provide habitat for deer, elk, rabbits, mice and other small animals.

SPC AND NEW AREAS

Habitat for the threatened grizzly bear and the endangered caribou has been inventoried and is being managed in this area. Primary management is for seclusion from human activities. Gray wolves (also an endangered species) have been reported near this area.

Mule deer, white-tailed deer, pileated woodpecker, American marten, and wolverine all inhabit this area.

At least one little known invertebrate, Magnum Mantle slug (*Magnipelta mycophaga)*, known to only three locations, inhabits the subalpine forests here.

Habitat for pileated woodpeckers and American marten exists in this area.

Water and Fish

The PWA has a water source protection area totaling 1,189 acres of stream that contributes to a community water system for the Town of Metaline Falls.

The Salmo-Priest Adjacent PWA is located in the Pend Oreille River subbasin (4th HUC). The PWA is broken down into three large areas and a series of four much smaller areas

SP/A

Lead Creek is contained in this portion of PWA. This stream flows into the South Fork of the Salmo River (6th HUC). It was surveyed for biota and contains an unknown subspecies of rainbow trout. No bull trout were found although the South Fork contains this species. Habitat condition is unknown.

SP/B

This portion of the PWA lies within the North Fork Sullivan Creek (6th HUC) and the Flume Creek (6th HUC) watersheds. The North Fork of Sullivan Creek flowing out of this area is the main domestic water source for the town of Metaline Falls. Monitoring of water quality of the north fork of Sullivan Creek and the operation and maintenance of a small dam outside the PWA (impassable to upstream fish passage) are being conducted by the public utility district. The North Fork flows into main Sullivan Creek. It contains pure westslope cutthroat trout, which is a species of fish listed as sensitive by the Forest Service. This creek contains no other known species above the dam. A portion of this stream has been surveyed. The stream habitat conditions in the North Fork range from excellent to good in the lowest 1.2 miles.

The Sullivan Creek watershed is considered to be core habitat that is essential for the recovery of the threatened bull trout in northeastern Washington. This watershed also contains designated critical habitat for the recovery of this species downstream of this portion of the PWA. There have been no observations of bull trout in the segment of the watershed within this portion of the PWA. The most recent observation, in 1994, was a 20 inch female bull trout while snorkeling below the confluence with Sullivan Creek. Another potential bull trout was observed while shocking in lower Sullivan Creek in 2007 although no genetic testing was done.

Sullivan Creek is also designated as a priority watershed within the Colville National Forest Land and Resource Management Plan as amended by INFISH. This designation indicates that these watersheds have excellent habitat and/or strong assemblages of native fish with a priority on bull trout.

The upper reaches of Threemile Creek are also contained within this portion of the PWA. This stream supplies water for domestic stock and a private fish farm adjacent to this area. Threemile Creek enters Boundary Reservoir via a vertical falls that prevents upstream fish passage. This stream contains both rainbow trout of indeterminate origin and brook trout outside of the proposed boundaries of this portion of the PWA. It is not known whether any portion of this creek within the PWA is fish bearing. Physical stream inventory indicates that the uppermost mile of this stream, within the PWA is intermittent. Habitat conditions range from good to fair.

Slate Creek and its tributaries, Uncas Gulch Creek and the South Fork Slate Creek, are contained in this portion of the PWA. Pure westslope cutthroat trout are found in all these waters along with brook trout within the PWA. The uppermost 1.5 miles of Slate Creek in the PWA are non-fish bearing. Several individual fish were observed in Slate Creek and lower Uncas Gulch Creek that outwardly looked like bull trout/brook trout hybrids but no genetic analysis has been done to date. The most recent observations of bull trout have been in the mouth of Slate Creek. Fish species including migratory bull trout from lower Slate Creek and Boundary Reservoir can not reach any habitat within the PWA due to an impassable falls just downstream of the proposed PWA boundary.

The Slate Creek watershed is considered to be core habitat that is essential for the recovery of the threatened bull trout in northeastern Washington. There have been no observations of bull trout in the portion of the watershed within this portion of the PWA. The most recent observation, in 1999, was a large adult bull trout observed while snorkeling in the mouth of Slate Creek.

Slate Creek is also designated as a priority watershed within the Colville Land and Resource Management Plan as amended by INFISH. This designation indicates that these watersheds have excellent habitat and/or strong assemblages of native fish with a priority on bull trout.

Habitat conditions for the portion of Slate Creek and Uncas Gulch are excellent. The South Fork of Slate Creek has not been physically inventoried.

SPC

Deemer Creek forms the eastern border of this portion of the proposed PWA. A non-fishbearing tributary of Deemer Creek is contained within the PWA. Deemer Creek is a tributary to upper Sullivan Creek. Pure westslope cutthroat trout have been found throughout this stream along with brook trout observed only within the lowest reach. No bull trout have been observed during surveys.

Since this stream is a tributary to Sullivan Creek, it is important to note, as with the North Fork of Sullivan Creek, that the larger Sullivan Creek watershed is considered both core habitat for the recovery of bull trout and a priority watershed. Designated critical habitat for the bull trout is located downstream of this proposed PWA.

Habitat conditions are considered excellent to good.

NEW AREAS (SP Adj.)

There are no streams within these areas.

Fish Conclusions

All 6th field watersheds have been analyzed for vegetation and road conditions. When vegetation conditions and road related effects are considered cumulatively, the five 6th field HUCs were rated as fair. This rating is due primarily to high road densities.

This habitat, in the South Fork of the Salmo River and the Slate, North Fork of Sullivan and Sullivan Creek portions of the PWA, is considered important core area habitat necessary for the recovery of the bull trout within northeastern Washington. Although a large portion of four of the five watersheds is not within the PWA, several tributaries are located in the PWA and could have significant effects on downstream water quality and instream habitat in lower Slate and Sullivan Creeks and the South Fork of the Salmo River in Canada where bull trout adults and juveniles have been observed.

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. If management actions, such as road building and timber harvest, are approved by the Regional Forester or Chief in the future within this PWA, a degradation of riparian and aquatic processes is expected. The adverse effects of such actions could extend beyond the boundaries of the PWA and continue throughout the 6th field HUCs.

Range

SPA/B

This area has a very low potential for domestic stock use due to steep slopes and dense understory vegetation.

Potential for livestock use is low due to forest cover. There is little meadow or grassland forage. Recreation pack animals do forage on a variety of shrubs.

Table 7--Percentage of grazing suitability areas and current allotments – SPA/B

Percent Area Suitable for Cattle Grazing	Percent Area Currently in Cattle Allotments	Percent Area Suitable for Sheep Grazing	Percent Area Currently in Sheep Allotments
5	0	6	0

SPC AND NEW AREAS

This area has an extremely low potential for domestic stock use due to steep slopes and dense understory vegetation.

Table 8--Percentage of grazing suitability areas and current allotments – SPC and new areas

Percent Area Suitable for Cattle Grazing	Percent Area Currently in Cattle Allotments	Percent Area Suitable for Sheep Grazing	Percent Area Currently in Sheep Allotments
0%	0%	0%	0%

Vegetation and Ecology

FOR ALL AREAS

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^3/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.

SPA/B

Seral stages of the cedar-hemlock forest type occupy most of the area with Douglas-fir, western larch, and grand fir trees covering most of the area. The central portion of this area is covered by stands of dense young trees (6,000-8,000 stems per acre) and some smaller areas are occupied by subalpine fir and Engelmann spruce. Forests in the area are moderately productive. The Douglas-fir/ninebark, cedar/*pachistima*, and the hemlock/*pachistima* habitat type cover nearly the entire area.

A significant amount of this area is wildland urban interface (WUI). The Healthy Forest Restoration Act (HFRA) authorizes direction to implement fuel reduction projects in the WUI. The HFRA prohibits authorized projects in wilderness areas. There is a concern that 43 percent of the area is in WUI, and much of that is dry forest. With its proximity to the developments near Sullivan Lake, wilderness designation would preclude reducing the fuels with mechanical means.

Table 9--Stand data percentages – SPA/B

Suitable for Timber Harvest	Forest Groups		WUI	
0%	**Parkland**	0%	**Total WUI**	43%
	Cold Dry	0%	**WUI in Dry and Mesic Forest**	58%
	Cold Moist	60%		
	Mesic	0%		
	Dry	39%		
	Non-forest	0%		

Fire

Records kept since 1920 indicate that the central portion of this area was burned by a large fire in 1929. The vegetation indicates that most of this area burned over in the late 1800s or around the turn of the century. Fuel loading is generally moderate, ranging from 25 tons per acre to 50 tons per acre, with some concentrated pockets that have resulted from blown down timber. This PWA has a very low fire hazard due to the amount of moisture held in the stands by the dense vegetation.

In the last ten years, this area has had suppression action taken on one fire which was less than one quarter of an acre in size. The fuel loading on ridgelines and south-facing slopes in the area is low (less than 5 tons per acre) with higher levels (up to 50 tons per acre) in some of the draws. According to the current fuel model, a fire start under normal circumstances will spread less than two chains per hour and have flame lengths of less than four feet.

Forty three percent of this area is wildland urban interface (WUI). The Healthy Forests Restoration Act (HFRA) authorizes direction to implement fuel reduction projects in the WUI. The HFRA prohibits authorized projects in wilderness areas. The concern increases with much of the WUI being dry/mesic forest if the ability to treat fuels mechanically is foregone with wilderness designation.

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.”

Areas adjacent to this PWA are known to support stands of whitebark pine, and whitebark pine may occur in small pockets within the PWA. 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 aerial survey of this PWA was completed in 2007. The most significant insect impact in the vicinity of this PWA has been attacks of western balsam bark beetles on subalpine firs. About 29,000 trees have been killed in the vicinity of the PWA since 2000. Blowdown and root disease may play an important role in the buildup of western balsam bark beetle populations. When beetle populations are high, they can more easily attack and kill healthy trees. Removing blowdown may be a way of reducing tree-killing by these beetles.

Pockets of balsam woolly adelgid activity have been reported several times since 2005. Balsam woolly adelgid is a European insect that was introduced to North America in the early 1900s. Any true fir can be a host, but subalpine fir is the most susceptible species on the district. Feeding by this sucking insect causes branch gouting and flagging, growth loss, wood degradation, and eventual tree death. Twenty-three species of predators were introduced between 1957 and 1964 in order to control this insect. Five of these species are established but do not appear to be reducing the balsam woolly adelgid population in any significant way. There is considerable difference in individual tree susceptibility.

Fir engravers kill several thousand grand firs every year. Fir engraver activity is often associated with root disease. They are also attracted to trees under stress from drought, defoliation or other damage. Trees that are attacked may be killed outright, or they may survive with top-kill.

Mountain pine beetles have been active in lodgepole pine stands since about 2004. 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. Lodgepole pine stands in this area probably initiated following fire in the 1920s, and have reached a susceptible age and size. 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. Mountain pine beetles *(Dendroctonus ponderosae)* have also killed a few hundred western white pines and whitebark pines every year. Whitebark pine mortality due to mountain pine beetles has been increasing in many places, possibly due to the combined effects of white pine blister rust and generally warmer winter temperatures.

The Douglas-fir beetle *(Dendroctonus pseudotsugae)* outbreak, which began in the late 1990s, had subsided by 2002, though some Douglas-firs are killed by bark beetles every

year. Douglas-fir beetle outbreaks typically last about four years, and occur when severe blowdown or similar disturbance provides abundant breeding material. Removing blowdown Douglas-firs before the beetles complete their life cycle can substantially reduce the size of an outbreak. Douglas-fir blowdown that occurs in wilderness cannot be removed, and can be a source of beetles.

Threatened, Endangered, and Sensitive Plant Species

Halliday Fen is located on the western side near the middle of the area. Halliday Fen is a rare ecological community with several plants and animals unique to this habitat. The fen habitat is unusual in the area. This is a research natural area (RNA) candidate. Several sensitive plants documented from Halliday Fen include yellow sedge (*Carex flavra),* crested shield-fern (*Dryopterus cristata*), green keeled cottongrass (*Eriophorum viridicarinatum*), water avens (*Geum rivale*), marsh muhly (*Muhlenbergia glomerata*), hoary willow (*Salix candida*), McCall's willow (*Salix maccalliana*), northern willow (*Salix pseudomonticola*), black snakeroot (*Sanicula marilandica*), and naked kidney lichen (*Nephroma bellum*). One additional sensitive plant is known from this PWA, tree-like clubmoss (*Lycopodium dendroideum*).

Noxious Weeds

Noxious weed inventory data is not available for this portion of the PWA.

SPC AND NEW AREAS

Forests cover much of the area except for small areas of rock outcrops. Various successional stages of the cedar-hemlock forest type occupy the lower areas with Douglas-fir, western larch, and grand fir trees present along with the cedar and hemlock. The elevations above 5,800 feet are occupied by subalpine fir and Engelmann spruce forests. The subalpine fir/pachistima, subalpine fir/beargrass, and the hemlock/pachistima habitat types cover nearly the entire area.

Concerns with managing the Wildland Urban Interface are minor in this portion of the area since only a small portion (8 percent) of the acreage added during the 2006 inventory is in WUI, and the SPC portion of the area has no WUI.

Table 10--Stand data percentages – SPC

Suitable for Timber Harvest	Forest Groups		WUI	
0%	Parkland	3%	Total WUI	0%
	Cold Dry	0%	WUI in Dry and Mesic Forest	0%
	Cold Moist	97%		
	Mesic	00%		
	Dry	0%		
	Non-forest	0%		

Table 11--Stand data percentages – New Areas

Suitable for Timber Harvest	Forest Groups		WUI	
0%	**Parkland**	6%	**Total WUI**	8%
	Cold Dry	0%	**WUI in Dry and Mesic Forest**	36%
	Cold Moist	89%		
	Mesic	0%		
	Dry	4%		
	Non-forest	1%		

Fire

The entire PWA was burned by a major fire in 1929. Current fuel loading in the Salmo SPC portion of the potential wilderness area is low to moderate, ranging between 25 tons per acre to 50 tons per acre. The fire hazard, as predicted by fuel models, is also low. This area has had no fire suppression activity taken in the last ten years.

Insects and Disease

No major disease pockets are known in the area but it would be normal in this area to find several pockets of *Armellaria mellia* per hundred acres, as well as white pine blister rust, stilactiform rust in lodgepole pine, and several varieties of heart rot in the grand fir, western redcedar, and western hemlock.

Western balsam bark beetles have killed subalpine firs throughout the analysis area, with several thousand trees killed in 2002-2004.

Fir engravers killed several hundred grand fir trees in 2003 and 2004.

Threatened, Endangered, and Sensitive Plant Species

There are no known rare plants present in the area; however, intensive surveys have not been made.

Noxious Weeds

Noxious weed inventory data is not available for this portion of the PWA.

Minerals and Soils

All Areas

The Salmo-Priest Adjacent PWA lies within the Kootenay Arc, a highly faulted and folded sequence of Middle and Late Proterozoic and Paleozoic rocks. The main part of the area lies along and immediately east of the trace of the Slate Creek fault. This area is underlain by metasedimentary rocks, predominantly phyllite with exposures of dolomite and metalimestone, and slate in the far western part of the area. The isolated parcels of the PWA that lie to the east of Crowell Ridge are underlain by metasedimentary rocks, mainly meta-argillite, metasiltite, quartzite, and metaconglomerate, and limited metavolcanic rocks.

The western part of the PWA has seen significant prospecting and exploration for lead-zinc deposits. A U.S. Geological Survey assessment of undiscovered mineral deposits indicates that the western half of the PWA is favorable and the eastern half of the PWA is permissible for the occurrence of Mississippi Valley lead-zinc deposits (Box and others, 1996). There are large blocks of active mining claims, as of 3/2008, and historic prospects/mines that flank and overlap into the PWA on the west. In the Slate Creek area, there are active claim blocks, held by several corporations and individuals, that encumber lands within the PWA in Section 1 of T. 39 N. R. 43 E., Section 36 of T. 40 N. R. 43 E., and Sections 29, 30, and 31 of T. 40 N. R. 44 E. (3/2008). Consequently, the majority of the PWA located west of the Salmo-Priest Wilderness has a moderate to high potential for the occurrence of lead, zinc, and silver (Box and others, 1996; Grant, 1982). The isolated tracts of the PWA located along and east of Crowell Ridge that flank the current wilderness boundary have a low or unknown potential for the occurrence of locatable minerals.

The majority of the area was encumbered by several oil and gas lease applications filed in 1983. However, those lease applications were withdrawn the same year and the lands involved have not been or are not the subject of any other past or current expressions of interest, lease applications, or leases for coal, oil and gas, or geothermal resources. The area should be considered to have a low to moderate potential for the occurrence of coal and oil and gas resources and a low or unknown potential for geothermal resources

SPA/B

A geologic and mineral report prepared in 1982 for the Colville and Okanogan National Forests indicates that this area has high potential for zinc, lead, and silver deposits. In the recent past, numerous mining claims have been filed in Sections 1, 6, and 12 within this PWA. However, no claims are currently active according to the U.S. Department of Interior-Bureau of Land Management records. Actual mining has taken place west of this area on Lead Hill.

There is one ten-acre patented claim (Blue Bird Claims) and several dozen unpatented claims in the central portion of this PWA. No major work has been done on this claim and it currently has no access except by foot or horseback. Interest and exploration in this area has increased with the recent reopening of the Pend Oreille Mine and its development of deep, Yellowhead Horizon, zinc-lead ores.

Soils in this area are generally a complex mixture of rock outcrops. Phylite, quartzite, and greenstone are the dominate rock types. Most of the soils have a thin layer of weathered volcanic ash over glacial till or colluvium. This weathered volcanic ash soil has a high water holding capacity. There are numerous springs, many of which are associated with very poorly drained soils, forming bogs and fens. Soils along the stream bottoms are generally wet and poorly drained.

SPC AND NEW AREAS

A geological and mineral report completed for the Colville and Okanogan National Forests shows this area as having little to no mineral value.

Land Uses and Special Uses

SPA/B

The north boundary to this PWA is the United States-Canada international boundary strip which is 60 feet wide and withdrawn under the public-land laws. This strip would not be included in a wilderness designation. There are no authorized land uses in this PWA.

SPC AND NEW AREAS

There are no authorized land uses in these small PWA portions.

Private Lands

SPA/B, SPC AND NEW AREAS

There are no private lands within the area. The only subsurface rights are the mining claims, which have a low probability of being patented.

NEED FOR WILDERNESS

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

SPA/B

The nearest designated wilderness is the Salmo-Priest Wilderness, which contains approximately 41,335 acres, and is adjacent to this PWA. It is located within the Colville and Idaho Panhandle National Forests. The nearest population center is Spokane. The drive time from Spokane to the Salmo-Priest Wilderness, as well as the Salmo-Priest Adjacent PWA, is approximately two hours.

There are only two relatively small, congressionally designated wilderness areas within a three hour drive of the Spokane area, including the adjacent Salmo-Priest Wilderness. In ranking this PWA for its potential to provide a high quality wilderness recreation setting it ranked as high. The area is relatively accessible, and by adding acreage to the existing wilderness the combined acreage provides high quality destinations that would attract wilderness users, and there are interconnected trail systems that facilitate both day trips and overnight use.

SPC AND NEW AREAS

Same as above for SPA/B.

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

Use of the Salmo-Priest Wilderness is fairly light. Wilderness use was monitored during the summer of 2004 through the national visitor use monitoring program (NVUM). Only 18 visitors to the wilderness were encountered during 21 days of sampling. Most visitors to this area are from northeastern Washington. Spokane residents also have access to the

Idaho Panhandle National Forests for recreation. Travel time and distance are comparable to the areas located on the Colville National Forest. There are 215,898 acres proposed for roadless allocations, and 148,961 acres are recommended for wilderness designation on the Idaho Panhandle National Forest. Seattle, ten hours driving time from this area, is the closest major metropolitan area. The abundance of prime backcountry recreation (including wilderness) close to Seattle precludes heavy use from that area.

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 five other PWAs within 15 air miles of the Salmo-Priest adjacent PWA (Abercrombie-Hooknose, Grassy Top, Hall Mountain, Harvey Creek, and South Fork Mountain) which encompass an additional 62,019 acres. This acreage, in combination with other unroaded areas including wilderness, totals approximately 226,000 acres. The roadless areas identified in RARE II constitute about twenty percent of the Colville National Forest.

Another consideration is off-highway vehicle recreation, which has increased tenfold 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.

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

Wildlife

The Salmo-Priest Adjacent PWA is adjacent to large areas of limited human access including the formally designated grizzly bear recovery area and the Salmo-Priest Wilderness. The PWA has habitat for Selkirk mountain caribou, grizzly bear, gray wolf, Canada lynx, wolverine, and American marten. The wildlife sustainability index is 33.1 (a high relative ranking) and the habitat connectivity index is 15.6 (a moderate relative ranking). Designation of the area as wilderness would provide effective sanctuary for these species.

Fish

The habitat within four of the five watersheds within the PWA is considered essential to the recovery of the bull trout. This PWA contains primarily tributaries that are important to future water and in-stream habitat quality in the South Fork of the Salmo River (in Canada), lower Sullivan and Slate Creeks. Bull trout have been observed in lower Sullivan Creek below Mill Pond Dam, the mouth of Slate Creek and the South Fork of the Salmo River in Canada and the US.

The 6th field HUCs in this PWA also provide suitable habitat for resident westslope cutthroat trout subpopulations; approximately 30 percent of the available habitat on the Forest. While the PWA contains only a small portion of these subpopulations, activities in the PWA could influence habitat conditions and water quality for those subpopulations located downstream. These are important factors that influence the future sustainability of these isolated subpopulations. This is especially true concerning a subpopulation of the subspecies located above an impassable dam on the North Fork of Sullivan Creek. This subpopulation occupies about three miles of habitat with no chance of any recolonization from Sullivan Creek.

It is understood that habitat conditions for TES species within the 6th field HUCs is fair. However, as a result of this analysis, the importance of this PWA to future water and habitat quality in existing bull trout habitat and the sustainability of three subpopulations of westslope cutthroat trout indicates that this PWA should be considered a *high* priority for wilderness classification.

Table 12--Sullivan Creek Watershed

Focal Species	Miles of Habitat	Percent Total Forest Habitat in Evaluation Area	Vegetation Score	Overall Road Density Score	Habitat Priority Ranking (1=high, 2=mod., 3=low)
Bull trout	3.2	3	0.01	-1.00	2
Westslope cutthroat trout	28	16	0.01	-1.00	2
Interior redband trout	0	0	0.01	-1.00	3
Pygmy whitefish	0	0	0.01	-1.00	3

Table 13--Flume Creek Watershed

Focal Species	Miles of Habitat	Percent Total Forest Habitat in Evaluation Area	Vegetation Score	Overall Road Density Score	Habitat Priority Ranking (1=high, 2=mod., 3=low)
Bull trout	0.2	<1	-1.00	-0.40	2
Westslope cutthroat trout	6.2	4	-1.00	-0.40	2
Interior redband trout	0	0	-1.00	-0.40	3

Table 14--North Fork Sullivan Creek Watershed

Focal Species	Miles of Habitat	Percent Total Forest Habitat in Evaluation Area	Vegetation Score	Overall Road Density Score	Habitat Priority Ranking (1=high, 2=mod., 3=low)

Bull trout	0	0	-1.00	0.5	3
Westslope cutthroat trout	3	2	-1.00	0.5	2
Interior redband trout	0	0	-1.00	0.5	3
Pygmy whitefish	0	0	-1.00	0.5	3

Table 15--Slate Creek Watershed

Focal Species	Miles of Habitat	Percent Total Forest Habitat in Evaluation Area	Vegetation Score	Overall Road Density Score	Habitat Priority Ranking (1=high, 2=mod., 3=low)
Bull trout	0.7	1	0.01	-0.5	2
Westslope cutthroat trout	13	8	0.01	-0.5	2
Interior redband trout	0	0	0.01	-0.5	3
Pygmy whitefish	0	0	0.01	-0.5	3

Table 16--South Fork Salmo River Watershed

Focal Species	Miles of Habitat	Percent Total Forest Habitat in Evaluation Area	Vegetation Score	Overall Road Density Score	Habitat Priority Ranking (1=high, 2=mod., 3=low)
Bull trout	2	2	0.01	0.6	1
Westslope cutthroat trout	0	0	0.01	0.6	3
Interior redband trout	0	0	0.01	0.6	3
Pygmy whitefish	0	0	0.01	0.6	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 moderate for this PWA. The second factor, which also ranked as high 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 high priority for preserving rare plant refugia with a wilderness designation.

The Halliday Fen is a unique plant community with a rich assemblage of rare plants. This area is protected as a Research Natural Area.

Ability to provide for preservation of identifiable landform types and ecosystems

Summary for All Areas

This area is classified as Okanogan Highlands using Bailey's Ecoregion classification, which is underrepresented in the wilderness system. The area is part of the Selkirk Mountain Range.

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 37 percent (approximately 6,140 acres) of the vegetative cover if this PWA. These types include forb lands, non-alpine meadows, ponderosa pine, and western red cedar. Taken as a whole, the contribution of underrepresented vegetation types ranks as high for the portion of this area with underrepresented cover types, and also as high for the number of acres that are represented within this PWA relative to the other PWAs in the planning area. In particular, the western red cedar cover type, which comprises 5,672 acres in this PWA, would make a significant contribution within the eastern Washington 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.