

**WEST PIONEER WILDERNESS STUDY AREA
WILDERNESS CHARACTERISTICS ASSESSMENT
BEAVERHEAD-DEERLODGE NATIONAL FOREST**

December 2003

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INTRODUCTION

The Montana Wilderness Study Act of 1977 (PL 95-150) (MWSA) required the study of certain lands to determine their suitability for designation as wilderness in accordance with the Wilderness Act of 1964. These lands are referred to as Wilderness Study Areas (WSAs). One of the nine areas identified in MWSA was the 148,150 acre "West Pioneer Wilderness Study Area". For the study, the West Pioneer WSA was grouped with the Mount Henry (Kootenai National Forest) and the Talyor-Hilgard (Gallatin National Forest) Wilderness Study Areas. After study, analysis, and evaluation of public comments, the Mount Henry, Taylor-Hilgard, and West Pioneer Study Report and Draft Environmental Impact Statement was completed on September 19, 1980. This report was the administrative recommendation to Congress for the land allocation and management of the area. The report recommended that all 148,150 acres of the West Pioneer Wilderness Study Area be managed as nonwilderness. Congress has not yet acted on the recommendations contained in the Study Report and Draft Environmental Impact Statement.

Language in the 1977 Act required that the areas be managed to maintain their presently existing wilderness character and potential for inclusion in the National Wilderness Preservation System. In 1996 the Montana Wilderness Association (MWA) filed an eleven count complaint that this part of the Act had been violated. Four counts were carried forward to decision, the others being dismissed or considered superfluous. One of the four counts pertained only to the Hyalite-Porcupine-Buffalo Horn WSA on the Gallatin Forest. On 5/20/01, U. S. District Court Chief Judge Molloy made a ruling that ordered one count dismissed and addressed the two remaining counts.

Count I alleged that the actions and inactions of the Forest Service had resulted in substantially increased motorized use of the WSAs, which resulted in increased environmental damage, all in derogation of the Wilderness Study Areas potential for wilderness designation and Congress' management mandate. Count VI alleged that the Forest Service dynamited boulders, placed crushed gravel, and constructed new trails in the West Pioneer WSA, thus encouraging motorized use and compromising the wilderness quality of the area.

Judge Molloy enjoined the Forest Service from taking any action that diminishes the wilderness character of the area as it existed in 1977 or that diminishes the area's potential for inclusion in the National Wilderness Preservation System. It was further ordered the Forest Service should take reasonable steps to restore the wilderness character, as it existed in 1977 if the areas' wilderness character or its potential for inclusion in the National Wilderness Preservation System has been diminished since 1977.

The Forest Service appealed the decision. The 9th Circuit Court of Appeals reversed the District Court decision that found the Forest Service had violated the MWSA and remanded to the

district court for trial to determine whether the requirements of the MWSA had been violated. The United States petitioned the Supreme Court for certiorari and requested the court treat the petition as a “stay case” pending the Supreme Court’s disposition of a related issue in a case from Utah.

FINDINGS

Based on examining the four wilderness characteristics mentioned in the Wilderness Attribute Rating System (WARS) to determine an areas suitability for wilderness designation: *natural integrity, apparent naturalness, outstanding opportunities for solitude, outstanding opportunities for primitive recreation* and comparing changes between 1977 and 2002, neither the wilderness character of the area nor the potential for inclusion in the National wilderness Preservation System has diminished since 1977 when looking at the WSA as a whole. Within the WSA, site-specific plusses and minuses have occurred, but overall the wilderness character as defined by the Wilderness Act has not diminished.

There have been many positive (plusses) management actions taken since 1977. There are less roads than in 1977. Open roads have been reduced by 18.45 miles. Motorized wheeled cross-country travel is no longer allowed over the entire area. Some existing trail segments have been relocated out of wet areas and away from creeks. Puncture has been installed over wet spots on trails. Livestock grazing has been eliminated on one allotment and on a portion of another. Riparian standards are being applied to all grazing allotments in the WSA. Numerous watershed restoration and fish habitat improvement projects have taken place. The 2,543 acre Skull-Odell Research Natural Area was established within the WSA. In the southern half of the WSA (South of Lacy Creek), what were previously roads are now managed as single-track trails. Also all roads and trails in the southern half of the WSA are now closed to motorized wheeled vehicle use yearlong. In the northern half of the WSA, some roads and two-track trails are also now managed as single-track trails.

Snowmobiling and winter snow trail grooming has not had any effect on the four wilderness characteristics. Any motorized use in the WSA is a function of management and can be administratively eliminated if the area is made Wilderness without any permanent or long lasting impacts on any wilderness attribute.

The most negative impact which has occurred in the WSA is located on private land and involves the construction of a large vacation home on the 158-acre Jerked Prairie Homestead. The most negative thing that has happened on public land within the WSA since 1977 occurs in the northern half (Lacy Creek north) and involves trails. On approximately 63.25 miles of trails that provided single-track (12 to 24 inch trail tread width) recreation opportunities in 1977 (some of these trails did have periodic full-sized vehicle use), the tread has been widened by repeated ATV use and are now two-track trails. Some of these trails go through wet spots and no resource protection work has been done at these places. Motorized ATV use on these trails has aggravated the situation and made the impact more pronounced at these spots.

Widening of the tread on some of the trails in the northern part of the WSA and the use of trails through wet areas, in itself, does not diminish the overall wilderness character of the WSA, but

corrective action needs to be taken to remedy existing problems and prevent future resource problems. This action consists of several items:

1. Repair trail related resource “sore” spots wherever they occur in the WSA. Adequately sign all trails to inform the public of the type of use allowed.
2. For the northern part of the WSA (Lacy Creek north): Limit ATV use to trails identified as two-track in 1977. On all other remaining two-track trails in the northern part of the WSA identified as single track in 1977, discontinue ATV use and bring trail tread width back to 24 inches.

Even though snowmobiling and winter snow trail grooming has not had an effect on the four wilderness characteristics, to prevent widening of snowmobile trails in the future, winter snow trail grooming will be limited to groomed trails shown on the 2002 winter map and grooming width will not be increased.

A more detailed discussion is found in the Wilderness Characteristics Assessment starting on page 5.

DESCRIPTION OF AREA

The West Pioneer WSA is located about 40 air miles northwest of Dillon in Beaverhead County, Montana. Access is from State Highways 43 and 278 on the north, west and south, and from the Pioneer National Scenic Byway Highway 73 on the east.

Topography is generally gently rolling with elevations varying from 6,500 to 9,500 feet. The crest of the West Pioneer Range dominates the area. Approximately 10 cirque lakes lie near the crest and numerous wet meadows adjacent to stream courses dot the landscape.

Vegetation consisting of sagebrush and mountain grasslands covers about 20% of the area. Approximately 60% of the area is heavily forested with lodgepole pine. The remaining area contains sedge-covered wet meadows and some whitebark pine on the ridgetops (USDA, 1980).

Since 1977 the WSA has been managed under the direction of the Beaverhead Forest Plan of 1977 and subsequently the Beaverhead Forest Plan of 1986 (USDA, 1977 and 1986).

CHRONICLE OF EVENTS

Congress passed the Montana Wilderness Study Act on November 1, 1977.

In 1977, the Beaverhead National Forest Land Management Plan and Final EIS was issued.

In 1977, Beaverhead National Forest Travel Map issued.

In 1979, Beaverhead National Forest Travel Map issued (replacing the 1977 travel map)

In 1980, the Draft Report and Proposal for the West Pioneer Wilderness Study Area was released.

In 1982, Southwest Montana Interagency Travel Map issued (replacing the 1979 travel map)

In 1984, Southwest Montana Interagency Travel Map issued (replacing the 1982 travel map)

In 1986, the Beaverhead National Forest Land Management Plan and Final EIS was issued (replacing the 1977 plan).

In 1987, Southwest Montana Interagency Travel Map issued (replacing the 1984 travel map)

In 1990, Southwest Montana Interagency Travel Map issued (replacing the 1987 travel map)

In 1993, Southwest Montana Interagency Travel Map issued (replacing the 1990 travel map)

In 1996, the Beaverhead and Deerlodge National Forests were combined into one administrative unit (Beaverhead-Deerlodge).

In 1996, Southwest Montana Interagency Travel Map issued (replacing the 1993 travel map).

WILDERNESS CHARACTERISTICS ASSESSMENT

This document evaluates the changes in wilderness characteristics between 1977 when the Montana Wilderness Study Act was passed and the present.

In his order, Judge Molloy mentions that the Wilderness Attribute Rating System (WARS) provides a benchmark for prospective management and specific criteria to guide the agency's exercise of its discretion (USDC, 2001).

WARS was developed in 1977 by the Forest Service to identify and evaluate wilderness character and was used in early 1978 to evaluate all 1,920 inventoried roadless areas in the Nation. WARS was applied to the West Pioneer WSA during January to March 1978. Using WARS, the Mount Henry, Taylor-Hilgard, and West Pioneer Study Report and Draft Environmental Impact Statement, and other information helps establish a 1977 benchmark. These references are also helpful to measure the amount of change from 1977.

WARS is based on four prerequisite attributes derived from language in the 1964 Wilderness Act: *natural integrity*, *apparent naturalness*, *outstanding opportunities for solitude*, and *outstanding opportunities for primitive recreation*. In addition, the system provides for rating four supplemental wilderness attributes: *outstanding ecological*, *geological*, *scenic*, and *historic features*. These last four do not pertain to wilderness character and will not be used in this assessment.

In WARS, *natural integrity* and *apparent naturalness* are closely related and use the same rating components. These components include physical developments, mineral developments,

recreation, grazing, wildlife management, vegetative manipulation, insect and disease control, non-indigenous plants and animals, fire history, air pollution effects, water pollution, unimproved roads, and occupancies. Ratings are based on the effect of an impact, the percent of area impacted, and the duration of the impact.

Likewise in WARS, *opportunities for solitude and primitive recreation* are closely related and use some of the same components. Mutual components used are size of the area, presence of topographic screening, vegetative screening, and distance from the perimeter to the core. Additional rating components for *opportunities for primitive recreation* are diversity of opportunity, challenge (hazardous things like dangerous animals and cliffs), and absence of man-made facilities (USDA, 1977a).

A review of the rating components of WARS and other information was used to assess change from 1977. Roads, trails, and snowmobile routes in existence in 1977 and 2002 (snowmobile routes based on winter 2001-2002) were also identified on maps. From this, a comparison was made how physical features and type of use has changed over time.

Natural Integrity and Apparent Naturalness

Natural integrity is looking at the degree to which the area retains its primeval natural integrity in a pure ecological sense. It is the extent to which long-term ecological processes are intact and functioning. Such impacts include physical developments (e.g., roads, utility rights-of-way, fences, lookouts, cabins), recreation developments, domestic livestock grazing, mineral developments, wildlife/fisheries activities, vegetative manipulation, and fire suppression activities.

Apparent naturalness is whether it appears natural to most people. It considers if the environment looks natural to most people using the area. The area generally needs to appear to have been affected primarily by the forces of nature, even though some of the long-term ecological processes of an area may have been interrupted, the landscape of the area appears to be affected by the forces of nature. If the landscape has been modified by human activity, the evidence is not obvious to the casual observer, or is disappearing due to natural processes.

Another way of putting it is that *natural integrity* estimates the magnitude of an impact while *apparent naturalness* focuses in the importance of those impacts to most visitors (USDA, 1977a).

Physical Developments

The seven miles of road within the WSA along Pettengail Creek to Cow Creek Meadows remains the same as it did in 1977. The 7.3 miles of two-wheel drive road from Steel Creek Campground to the Martin Mine remains in place as it did in 1977. The mining Plan of Operations permits vehicle access to the mine by the miners only. The route is closed to the public with motorized wheeled vehicles. The 4.25 mile Alder Creek Timber Sale road remains in place as it was in 1977, but is now closed to motorized wheeled vehicles. Two bridges on the

road have been removed. The 1.25 mile 4-wheel drive road accessing the Jerked Prairie private land inholding also remains in place as in 1977 with some minor improvement.

In 1977 the Odell Creek trailhead was located inside the WSA. Since 1977 the trailhead was moved outside the WSA and reconstructed. About .25 mile of road inside the WSA leading to the old trailhead was closed and rehabilitated. Today this old road is a single-track trail. From 1977 to 2002, 6.1 miles of roads were converted to single-track trails. Single track trails usually have tread width between 12 and 24 inches.

There is a gray area between what is a road and what is a two-track trail. Many of the two-track trails referred to in this report (commonly referred to as Jeep trails on maps) were used by full-size vehicles in the past.

Since 1977, several trails have had major tread work done. Portions of trails have been relocated out of wet areas and away from creeks to protect the fishery resource. These trails have been reconstructed to hiker and horse standards. Two trail bridges have been reconstructed. In 1977 there were 151 miles of single-track and 30.8 miles of two-track trails in the WSA. In 2002 there were 120.65 miles of single-track and 67 miles of two-track trails in the WSA.

In 1977, what is now known as the Pioneer Loop Trail #750 was a 4-wheel drive road leading from Lacy Creek to Schwinegar Lake and Lake of the Woods. To keep full-size vehicles from traveling the route, sometime in the 1980's boulders were placed in Lacy Creek where the road crossed the creek. This was outside the WSA boundary. The study report and draft environmental impact statement map shows the WSA boundary above the junction of Lacy Creek Trail #750 and Bobcat Creek Trail #50 (USDA, 1980). The creek crossing is below this trail junction. The boulders were spaced to allow ATVs to continue use of the route. At the time, ATVs were generally less than 40 inches in width. As ATVs got wider they could no longer squeeze through the boulders and were going around the boulders through a wet streamside area. In 1995 the Forest Service removed the boulders to allow passage of wider ATVs and eliminate further damage to the wet streamside area. Also in the 1990's approximately 10 yards of gravel was spread on Pioneer Loop Trail #750 along a half-mile stretch of trail from the Lacy Creek Crossing. Some of this was outside the WSA boundary and some inside. There is not much evidence left of the gravel on the trail.

In 1977 approximately 30 miles of fence was located within the WSA (USDA, 1980). Since 1977, fences and water developments associated with grazing allotments have been maintained and in some cases replaced. Some new additional wire and wooden fences have been built in the WSA since 1977.

A Natural Resource and Conservation Service (NRCS) snow course and snow pillow (used for measuring the amount of snow) remain in the Foolhen cabin area as in 1977.

Mineral Developments

Mineral developments in the WSA predate 1977. The Wilke, Schwinegar Lake, Martin Mine, and Armar Lake Mining Group are all identified as incompatible use areas on the Wilderness

Suitability Map that is part of the Mount Henry, Taylor-Hilgard, and West Pioneer Proposal, Report and EIS (USDA, 1980).

Since 1977, miners, under their Plan of Operations, have cleared the adit at the Martin Mine. About 20-30 feet of the adit was excavated and opened up. Mining claim assessment work (mostly surface hand work) was done at the Black Bear Mine near Odell Mtn, near Lily Lake, at Maynard Mine, and at other scattered mining claims. In the mid 1990s when the Bureau of Land Management (BLM) began requiring an annual assessment fee of \$100 per claim, the number of mining claims in the WSA dropped.

Mining areas that were visible in 1977 remain visible today. No new mining claims have been established in the WSA since 1977.

The effect of mineral development on *natural integrity* and *apparent naturalness* has basically not changed since 1977.

Recreation

Motorized use was a major issue in the MWA lawsuit. By 1977, both summer and winter recreational use of the West Pioneer area was well established. This included both motorized and non-motorized activities and these are described in several documents.

The 1980 West Pioneer Study Report and Draft Environmental Impact Statement mentions the WSA is heavily used during the hunting season. It also mentions snowmobiling is popular and extensive snowmobiling occurs during the winter months because of the gentle terrain, numerous meadows, and generally good snow conditions. The report specifically lists snowmobiling being popular in Anderson Meadows, Upper Pettengill Creek, Upper Lost Horse Creek, Stewart Meadows, Steel Creek and the trail to Odell Lake. The report also mentions trail bike and off-road vehicle use in the WSA (USDA, 1980). Some of these snowmobile trails are the ones currently being groomed.

The 1977 Beaverhead Forest Plan mentions foot, horse, trail cycling, and OHV use in the WSA. The plan mentions that the highest use was between September through November, the fall hunting season. The plan also mentions that snowmobiling is popular in Anderson Meadows, Upper Pettengill Creek, Upper Lost Horse Creek, on the trail to Odell Lake and there is snowmobile use in Steel Creek and Old Tim Creek. It also mentions there is heavy motorbike use in the summer (USDA, 1977b).

In 1977, the entire 148,150 acre West Pioneer WSA was open to yearlong unrestricted motorized use on roads, trails, and areas except for approximately six miles of trails closed to motorized use in the summer. In 1977, motorized vehicle use consisted mostly of full sized vehicles, motorcycles, and snowmobiles. With the advent of three and four wheel all terrain vehicles (ATVs) in the 1970's, ATVs became popular and by 1977 began to use the WSA. Unrestricted motorized wheeled cross-country travel was allowed in 1977.

From 1977 to the present time, the Forest Service has increasingly restricted motorized vehicle use in the WSA. Presently, all roads, trails, and areas in the southern half of the WSA are closed to motorized wheeled vehicle use yearlong. The exception is 7.3 miles of road that leads to the Martin Mine that miners are permitted to use to access their mine under their Plan of Operations. The road is not open to public motorized wheeled travel. In 1977, the Odell Creek trailhead was located within the WSA. Since then, the trailhead has been moved outside the WSA and the one-quarter mile of road within the WSA closed and rehabilitated.

In the northern half (Lacy Creek north) of the WSA, 19.8 miles of single-track trails and 4.25 miles of roads have been closed to motorized wheeled travel since 1977. The northern half of the WSA does contain a system of trails open to ATV and motorcycle use. Many of these trails are steep and very rocky. Some of these two-track ATV trails were formerly roads used by full-sized vehicles and some were formerly single-track trails. Approximately 58.75 miles of trails that provided single-track recreation opportunities (some had periodic full-sized vehicle use) in 1977 were widened (tread width) by repeated ATV use and are now two-track trails. The clearing width of the trails remained the same, only the tread width widened. Some of these trails go through wet spots and no resource protection work has been done at these places. Motorized ATV use on these trails has aggravated the situation and made impact much more pronounced at these spots. Some of these resource “sore” spots are found on the Pioneer Loop Trail #750.

In 1979 the Pioneer Loop Trail #750 was designated a National Recreation Trail (NRT) by the Chief of the Forest Service. Approximately 32 miles of this 35 mile trail are inside the WSA.

Approximately 8.25 miles of roads remain open in the northern half of the WSA. This includes approximately 1.25 mile of road leading to the Jerked Prairie private land inholding and 7 miles in Lacy Creek. The entire WSA is now closed to motorized wheeled cross-country travel off of existing roads and trails (USDA, 2001)

In 1977, snowmobile use in the WSA was unrestricted. There were approximately seven miles of marked trails. Most of the use at that time was on unmarked trails and snowmobile use was less than now. Presently, snowmobiling is a popular winter-spring recreation activity in the WSA and the WSA is open to unrestricted **winter** snowmobile use. There are approximately 90 miles of marked snowmobile trails of which 36 miles are periodically groomed (approximately once a month). The majority of the WSA is closed to snowmobiles from May 15 to December 1 (**Late spring-summer**). Approximately 10% of the area is closed to snowmobiles during the **fall** hunting season October 15 to December 1.

Snowmobile routes have been marked and /or groomed to concentrate use and to delineate a safe route. Marked and groomed snowmobile trails are not considered constructed features in the wilderness characteristic assessment as they mostly follow snow covered existing roads and trails. There is no ground disturbance associated with snowmobiling and no additional clearing has been done to accommodate the trail groomers. Trail grooming in the WSA consists of a small groomer pulled behind a snowmobile that leaves a three-foot wide snow trail. The development is minimal and leaves the impression of a narrow trail meandering through the woods; not a major constructed feature. While the overall amount of snowmobile use in the

WSA has increased since 1977 the areas being used by snowmobiles in 1977 and at present remain essentially the same. To a large degree snowmobile riding in the WSA involves trail riding or playing in the parks and meadows. This use was occurring in 1977. Trail grooming is conducted largely for the comfort of snowmobilers and to delineate routes rather than to provide access that would otherwise not occur,

Grazing, Watershed, and Wildlife Management

All or portions of 14 cattle grazing allotments are within the WSA.

Since 1977 livestock (cattle) numbers in the WSA have been reduced. While all allotments are still active (not closed), livestock grazing has been eliminated on one allotment and on a portion of another. The Forest Service also began applying riparian standards to grazing allotments in the WSA about 1986. As the result of a lawsuit by the National Wildlife Federation against the Beaverhead National Forest, the Forest Service made a Forest Plan Riparian Amendment on October 10, 1997 that required application of interim riparian and fisheries standards until allotment management plans (AMP) were revised. These interim riparian and fisheries standards are in place for the WSA. Revised AMPs are to incorporate new riparian goals, objectives, standards, and guidelines on all allotments covered by the Beaverhead Forest Plan, including those in the WSA.

Since 1977, there have been numerous watershed restoration and fish habitat improvement projects. These projects included relocating trails away from creeks, hardening trail creek crossings (fords), and fencing portions of streams to keep livestock out.

Vegetative Manipulation

In 1975 the Alder Creek Timber Sale was awarded and the timber cut and hauled out. In 1977 there were 413 acres of clearcuts and 4.25 miles of timber harvest access roads located within the northern part of the WSA. These are identified as incompatible use areas on the Wilderness Suitability Map that is part of the Mount Henry, Taylor-Hilgard, and West Pioneer Proposal, Report and EIS (USDA 1980).

Since 1977, new trees have regenerated in the clearcuts (some sparsely) and are now about 12 to 15 feet tall. The cutting units are still evident from trails, the surrounding area, and from the access road. The road remains in place, but since has been closed to motorized wheeled vehicles yearlong. The road and timber harvest area are open to snowmobiles as they were in 1977. The effect of this past timber harvesting on the natural integrity has not diminished much since 1977. There has been no timber sales since 1977. Following the timber sale the Alder Creek genetic tree plantation study area was established. Superior trees were planted and their growth monitored.

In 1996 the 2,543 acre Skull-Odell Research Natural Area was established within the WSA. The area is set aside to preserve a representative sample of an ecological community primarily for scientific and education purposes.

Noxious weeds

There are few noxious weeds in the WSA. Noxious weeds that do occur are spotted knapweed and Canadian thistle. The amount of noxious weeds in the WSA is about the same level as in 1977 or just slightly increased. Noxious weeds are treated annually along the roads accessing the WSA and also on the adjacent private ranchlands, which helps keep weeds from spreading to the WSA.

Fire History

There have been 32 wildfires since 1977 (through 2002), the largest being approximately 14 acres. A total of 48 acres have burned since 1977. There has been no prescribed burning in the WSA since 1977.

Occupancy

Jerked Prairie on Lambrecht Creek is a 158 acre private land parcel (Homestead Entry Survey 1017) within the WSA. A 1.25 mile 4-wheel drive road within the WSA accesses the private land.

Since 1977 a large vacation home has been built on the property and the access road improved somewhat. It is still regarded as a 4-wheel drive access road. In Warm Springs Creek, 34 acres of private land (Homestead Entry Survey 447) are within the southwest corner of the WSA. Access to this private land is outside the WSA. The 34 acres is part of a larger piece of private land located mostly outside the WSA.

In 1977, the Foolhen administrative cabin was used to house Forest Service crews. The cabin remains and is now made available to the public under the Forest Service Lookout and Cabin Rental Program. There are less outfitter and guide base camps than existed in 1977. These base camps were used during the fall hunting season.

Overall Rating

In 1977, the overall WARS rating for *Natural Integrity* was: All impact ratings low, very low, or none, effects on natural process, low or medium, generally less than 25% of area impacted, and the duration of impact usually 5-10 years with high or moderate feasibility of correcting. This rating basically has not changed

In 1977, the overall WARS rating for *Apparent Naturalness* was: Area appears apparently natural to most visitors, only limited clues of unnaturalness. Even with the construction of the summer residence on private land near the perimeter of the WSA and the widening of tread on some of the trails, this rating basically has not changed.

Outstanding Opportunities for Solitude and Opportunity for Primitive Recreation Experience

These two criteria are based on the potential (opportunities) for solitude and primitive recreation if an area was made wilderness.

Solitude is defined as being isolated from the sights, sounds, and presence of others and from the development and evidence of man. WARS focuses on those intrinsic features of roadless areas that offer users *outstanding opportunities for solitude*—size of the area, presence of topographic screening, vegetative screening, distance from the perimeter to the core, and the degree of permanent off-site intrusions perceived from the area. Noise and human density, though important to solitude, can be changed by management decisions, and are therefore not included in the WARS rating (e.g., by future closing or opening trails or campsites, controlling uses, etc) (USDA, 1977a).

Outstanding opportunities for primitive recreation considers the sense of remoteness, closeness to nature, serenity, spirit of adventure, using outdoor skills, high degree of challenge, and risk. In addition to access and the number of people along with the associated noise considered above, this characteristic considers the type of use and mode of travel. It is characterized by meeting nature on its own terms, without comfort and convenience facilities (USDA, 1977a). Some of the characteristic primitive-type wilderness recreation activities are hiking, camping, fishing, hunting, cross-country skiing, winter camping, and nature study.

Size of Area

Size of the WSA in combination with other criteria is an important component of an area's overall potential for solitude and primitive recreation. A large area has more potential for solitude than a small one (USDA, 1977a). The four-part rating scale ranges from VERY LOW to HIGH. The original WARS rating for Size of Area is HIGH (80,000 acres or larger).

The size of the WSA has not changed since 1977.

Topographic Screening

The assumption here is that diverse relative relief in the WSA enhances opportunities for solitude by increasing opportunities for screening (USDA, 1977a). The four-part rating scale ranges from MINIMAL/NONE to HIGH.

The original WARS rating for topographic screening is HIGH (contains a diversity of highly dissected topography that easily screens people from one another within short distances).

Topographic screening in the WSA has not changed since 1977

Vegetative Screening

This component represents the collective vegetative cover that offers opportunities for screening parties from one another. In areas where vegetative cover is heavy, the sight of other people is reduced (USDA, 1977a). The four-part rating scale ranges from MINIMAL/NONE to DENSE.

The original WARS rating for vegetative screening is DENSE (most of the area has dense vegetation, which screens people from one another, even within a quarter mile, but there is sufficient opening to permit travel and camping without undue concentration).

Vegetative screening has basically not changed since 1977.

Distance From Perimeter To The Core

The distance from the perimeter of the roadless area to the core or approximate geographic center is a measure of the potential for solitude and escape from the evidence of man (USDA, 1977a). The four-part rating scale ranges from LOW to OUTSTANDING.

The original WARS rating for distance from perimeter to the core was a HIGH (from 3 to 5 miles from the core to the perimeter).

Distance from the perimeter to the core of the WSA has not changed since 1977.

Permanent Off-Site Intrusions

This includes off-site evidence of man's activities likely to be seen, heard, or smelled by visitors from within the area such as from a transportation corridor (USDA, 1977a). The three-part rating system ranges from MINIMAL/NONE to MANY.

The original WARS rating for permanent off-site intrusions was MINIMAL/NONE (generally no off-site intrusions perceptible to visitors within the entire area).

Permanent off-site intrusions of the WSA has basically not changed since 1977.

Diversity

Diversity of vegetation, fish and wildlife, terrain, lakes and streams, and climate improves opportunities for a larger variety of primitive recreation activities (USDA, 1977a). The three-part rating system ranges from LITTLE DIVERSITY to VERY DIVERSE.

The original WARS rating for Diversity was VERY DIVERSE (has much diversity in nearly all the above categories).

Diversity of the WSA has not changed since 1977.

Challenge

This component is measured as the number and extent of challenging features such as dangerous animals, climatic disturbance, avalanche potential, terrain features (cliffs, quicksand, sink holes), fast moving water, glaciers, and a lack of dominant visual features on which to orient oneself (USDA, 1977a). The three-part rating system ranges from RARE to MANY.

The original WARS rating for Challenge was FEW (features commonly considered hazardous encountered in area).

Challenge in the WSA has not changed since 1977.

Absence of Recreation Facilities

The absence of facilities component denotes a freedom from man's developments, which is important in affording opportunities to develop and test outdoor skills and to be free of the evidence of man (USDA, 1977). The four-part rating system ranges from MINIMAL/NONE to HIGHLY DEVELOPED. Recreation facilities are considered campsite development and trails.

The original WARS rating for absence of recreation facilities was MINIMAL/NONE (either no or very few recreation facilities in area; low standard trails, logs over streams, etc) (USDA, 1978).

While the original WARS rating of MINIMAL/NONE adequately describes the campsite facilities as they existed in 1977, it does not adequately describe the trail standards, as they existed in 1977. The problem is how the four-part rating scale lumped recreation campsite development and trails together. The rating scale assumes that the level of campsite development (fire rings, fireplaces, toilets, tables, etc) and level of trail development (low to high standard, log crossings to bridges) are in relation to one another. This was not the case in the West Pioneer WSA in 1977. Many of the trails were of a higher standard than fits MINIMAL/NONE and would fit somewhere between MODERATE DEVELOPMENT (trails, at least some built to high standards, bridges over most streams) and LIMITED DEVELOPMENT (mostly low standard trails, few bridges over large streams). The raters apparently favored rating campsites over the degree of trail development when picking a rating description they felt best describes the area.

There have been some changes since 1977. In 1977 the Foolhen Cabin near the northern boundary of the WSA was a Forest Service administrative cabin used by Forest Service crews working in the area (USDA, 1980). About 1986, the cabin was put under the Forest Service lookout and cabin rental program and made available to the public as a rental recreation cabin.

Since 1977 many trails have been improved for safety and resource protection. Puncheon has been placed over wet areas and some trail sections have been relocated to a better location.

Overall Rating

In 1977, the overall WARS rating for *Opportunity for Solitude* was: **Outstanding**, all five (size of the area, presence of topographic screening, vegetative screening, distance from the perimeter to the core, and the degree of permanent off-site intrusions perceived from the area) components rated in the top category. This rating basically has not changed.

In 1977, the overall WARS rating for *Opportunity for Primitive Recreation* was: **Very High**, five components rated in the top category, remainder rated only one scale position away (size of the area, presence of topographic screening, vegetative screening, distance from the perimeter to the core, the degree of permanent off-site intrusions perceived from the area, diversity of opportunity, challenge (hazardous things like dangerous animals and cliffs), and absence of man-made facilities). This rating basically has not changed.

REFERENCES

USDA Forest Service, 1977a. RARE II Wilderness Attribute Rating System, A User's Manual.

USDA Forest Service, 1977b. Beaverhead National Forest Plan and Final Environmental Impact Statement.

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USDA Forest Service, 1980. Mount Henry, Taylor-Hilgard, and West Pioneer Study Report and Environmental Statement.

USDA Forest Service, 1986. Beaverhead National Forest Plan and Final Environmental Impact Statement.

USDA Forest Service, 2001. Off-Highway Vehicle Environmental Impact Statement and Proposed Plan Amendment for Montana, North Dakota and portions of South Dakota.

USDC (District Court), 2001. Order in Montana Wilderness Association, et al. vs. United States Forest Service, et al. finding for the Plaintiffs.

TABLE 1
WEST PIONEERS WSA
STATUS OF ROADS AND TRAILS IN 1977 AND 2002

Listing starts at northern end of WSA and proceeds more or less southerly

ST=single track trail and TT=two-track trail

ROUTE #	STATUS IN 1977						1977 STATUS BASED UPON	STATUS IN 2002						CHANGE SINCE 1977
	Open Road	Open Trail		Rest. Road	Rest. Trail			Open Road	Open Trail		Rest. Road	Rest. Trail		
		ST	TT		ST	TT			ST	TT		ST	TT	
Trail 33, Meadow Creek		3.0					1971 Ranger District Map			3.0				Tread widened by use to two-track trail
Trail 164, Osborne Creek		4.5					1971 Ranger District Map			2.0		2.5 Seasonal		Tread widened by use to two-track trail. No motorized use on upper 2.5 miles Oct. 15-Dec. 1.
Trail 8, Alder Creek		4.25					1971 Ranger District Map	2.0	2.25					Tread widened by use to two-track trail on 2.25 miles.
Trail 86, Foolhen Ridge		3.25					1971 Ranger District Map			3.25				Tread widened by use to two-track trail
Trail 84, Foolhen- alder Cutoff		1.25					1977 Travel Plan Map			1.25				Tread widened by use to two-track trail
Trail 99, Bryant Creek		3.0					1971 Ranger District Map			3.0				Tread widened by use to two-track trail
Trail 741, Trident Meadows		.75					1971 Ranger District Map			.75				Tread widened by use to two-track trail
Trail 96, Squaw Creek		3.8					1977 Travel Plan Map					3.8		Closed to all motorized vehicles except snowmobiles
Road 1213, Alder Creek	3.25						1977 Travel Plan				3.25			Road closed to all motorized vehicles except snowmobiles
Road 7395,	1.0						1977 Travel Plan				1.0			Road closed to all

ROUTE #	STATUS IN 1977						1977 STATUS BASED UPON	STATUS IN 2002						CHANGE SINCE 1977
	Open Road	Open Trail		Rest. Road	Rest. Trail			Open Road	Open Trail		Rest. Road	Rest. Trail		
		ST	TT		ST	TT			ST	TT		ST	TT	
Alder Creek							Map							motorized vehicles except snowmobiles
Trail 750, Pioneer Loop		32	4				1971 Ranger District Map 1979 Travel Plan Map		13.5	20.5		2.0		Tread widened by use to two-track trail on 16.5 miles. 2.0 miles closed to all motorized vehicles except snowmobiles
Trail 380A, Lily Lake		.5					1962 USGS Quad Map		.5					No change
Trail 125, Trout Creek		1.25					1971 Ranger District Map			1.25				Tread widened by use to two-track trail.
Trail 135, Lost Horse Creek		6.5					1971 Ranger District Map			6.5				Tread widened by use to two-track trail.
Trail 202, Stone Creek		4.0					1971 Ranger District Map					4.0		Closed to all motorized vehicles except snowmobiles
Trail 46, Reservoir Creek		6.5					1977 Travel Plan Map			6.5				Tread widened by use to two-track trail
Trail 219, Grouse Creek		3.0					1971 Ranger District Map					3.0		Closed to all motorized vehicles except snowmobiles.
Trail 126, W. FK. LaMarche Creek		2.5					1971 Ranger District Map		2.5					No change
Trail 261, De Boose Creek		1.5					1971 Travel Plan map					1.5		Closed to all motorized vehicles except snowmobiles
Trail 100, Papoose Creek		.75					1971 Travel Plan map		.75					No Change
Trail 90,		1.6					1971 Ranger District		1.1			.5		.5 mile closed to all

ROUTE #	STATUS IN 1977						1977 STATUS BASED UPON	STATUS IN 2002						CHANGE SINCE 1977
	Open Road	Open Trail		Rest. Road	Rest. Trail			Open Road	Open Trail		Rest. Road	Rest. Trail		
		ST	TT		ST	TT			ST	TT		ST	TT	
Doolittle Creek							Map. 1962 USGS Quad Map							motorized vehicles except snowmobiles
Trail 300, Sand Lake		5.0					1971 Ranger District Map					5.0		Closed to all motorized vehicles except snowmobiles.
Trail 245, Pettengill Creek	7.0	9.0					1971 Ranger District Map	7.0		9.0				Tread widened by use to two-track trail on 9.0 miles
Trail 85, Lambrecht Creek	1.25	3.5					1971 Ranger District Map	1.25		3.5				Tread widened by use to two-track trail on 3.5 miles
Trail 50, Bobcat Creek		3.0					1971 Ranger District Map		3.0					No change
Trail 226, Bobcat Lakes		6.5					1971 Ranger District Map		6.5					No Change
Trail 758, Odell Creek	.25	4.75					1971 Ranger District Map					5.0		.25 mile of road closed and made a single track trail. Entire 5.0 miles closed to all motorized vehicles except snowmobiles
Trail 141, Skull Creek		4.0					1971 Ranger District Map					4.0		Closed to all motorized vehicles except snowmobiles
Trail 10, Odell-Steel Creek	.1	6.3					1978 USGS Quad Map					6.4		.1 mile of road closed and made a single track trail. Entire 6.4 miles closed to all motorized vehicles except snowmobiles. Closed to snowmobiles May 15- Dec.1.
Road 2433, Martin	3.0						1962 USGS Quad Map				3.0 Seasonal			Road closed to all motorized vehicles

ROUTE #	STATUS IN 1977						1977 STATUS BASED UPON	STATUS IN 2002						CHANGE SINCE 1977
	Open Road	Open Trail		Rest. Road	Rest. Trail			Open Road	Open Trail		Rest. Road	Rest. Trail		
		ST	TT		ST	TT			ST	TT				
Mine							Interviews							Dec.2-May 15 except snowmobiles.
Trail 197, Martin Mine	2.0		3.1				1962 USGS Quad Map Interviews				2.0	3.1		2.0 mile of road to the Martin Mine closed to all motorized vehicles except snowmobiles and miners under Plan of Operations. 3.1 mile of two-track trail made into single-track trail and closed to all motorized vehicles except snowmobiles.
Trail 197A, Martin Mine	.5						1962 USGS Quad Map Interviews				.5			.5 mile of road to the Martin Mine closed to all motorized vehicles except snowmobiles and miners under Plan of Operations
Trail 198, Warm Springs Creek	1.8	1.0	2.0				1962 USGS Quad Map Interviews				1.8	3.0		1.8 mile of road to the Martin Mine closed to all motorized vehicles except snowmobiles and miners under Plan of Operations. 2.0 miles of trail now made single track trail and closed to all motorized vehicles except snowmobiles
Trail 401, Bear Lake		6.35					Interviews					6.35		Closed to all motorized vehicles except snowmobiles
Trail 174, Rabbia Creek		5.0					1971 Ranger District Map					5.0		Closed to all motorized vehicles except snowmobiles

ROUTE #	STATUS IN 1977						1977 STATUS BASED UPON	STATUS IN 2002						CHANGE SINCE 1977
	Open Road	Open Trail		Rest. Road	Rest. Trail			Open Road	Open Trail		Rest. Road	Rest. Trail		
		ST	TT		ST	TT			ST	TT				
Road 167, Wyman Creek	3.5		6.5				1978, 1979 USGS Map Interviews					10.0		3.5 mile of road and 6.3 mile two-track made a single track trail. 10.0 miles closed to all motorized vehicles except snowmobiles
Trail 70, Halfway Meadows		3.6	2.1				1971 Ranger District Map Pre 1977 USGS Quad Map Interviews					5.7		2.1 mile of two-track made a single track trail. 5.7 miles closed to all motorized vehicles except snowmobiles.
Trail 206, Giant Powder		1.5					1978 USGS Quad Map					1.5		Closed to all motorized vehicles except snowmobiles.
Trail 192, Shoestring- Bear Wallow		2.8	2.9				Pre 1977 USGS Quad Map Interviews					5.7		2.9 mile of two-track made into single-track trail. 5.7 miles closed to all motorized vehicles except snowmobiles
Trail 71 Harrison Park		1.8	2.6				Pre 1977 USGS Quad Map Interviews					4.4		2.6 mile of two-track made into single-track trail. 4.4 miles closed to all motorized vehicles except snowmobiles
Trail 114, Old Tim Creek			2.2				Pre 1977 USGS Quad Map Interviews					2.2		2.2 mile of two-track made into single-track trail. Closed to all motorized vehicles except snowmobiles
Trail 5, Hunter Creek			.4				Pre 1977 USGS Quad Map Interviews					.4		.4 mile of two-track made into single-track trail. Closed to all motorized vehicles except snowmobiles

ROUTE #	STATUS IN 1977						1977 STATUS BASED UPON	STATUS IN 2002						CHANGE SINCE 1977
	Open Road	Open Trail		Rest. Road	Rest. Trail			Open Road	Open Trail		Rest. Road	Rest. Trail		
		ST	TT		ST	TT			ST	TT		ST	TT	
Trail 171, Wyman- Bear Wallow			3.0				Pre 1977 USGS Quad Map Interviews		3.0					3.0 mile of two-track made into single-track trail. Closed to all motorized vehicles except snowmobiles
Trail 259, Odell Lookout		1.0					1962 USGS Quad Map					1.0		Closed to all motorized vehicles except snowmobiles
Road, Maynard Mine	.25		2.0				1962 USGS QUAD Map	.25		2.0				No Change
Trail 205, Stewart meadows		1.6					1975 USGS Map					1.6		Closed to all motorized vehicles except snowmobiles
Road, Stewart meadows	2.25						1975 USGS Quad Map					2.25		2.25 mile of road made into single-track trail. Closed to all motorized vehicles except snowmobiles
Trail 98, Shoofly (McVey Creek)		.4					1962 USGS Quad Map		.4					No change
TOTAL	26.15	151.0	30.8	0	0			8.5	33.25	64.75	8.55 + 3.0 Seasonal	87.4	2.25 seasonal	