



# **STEENS MOUNTAIN WILDERNESS MONITORING PLAN**

**Bureau of Land Management  
Oregon  
Burns District  
Steens Mountain Cooperative Management and Protection Area**

# **STEENS MOUNTAIN WILDERNESS MONITORING PLAN**

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## **SECTION II: ECOSYSTEM MONITORING**

# STEENS MOUNTAIN WILDERNESS MONITORING PLAN SUMMARY

## GOALS:

1. To establish and maintain a wilderness recreational impacts monitoring system, gathering baseline data that will assist with future planning by monitoring seven indicators: campsite condition, campsite density, perception of solitude, trail condition, length of visitor stay, recreational stock use, and motor vehicle intrusions.
2. To evaluate the current condition of the resource in relation to management objectives in order to identify any problems.
3. To recognize trends and to evaluate the effectiveness of management programs in relation to wilderness use.

## OBJECTIVES:

1. To locate, inventory, and document wilderness campsites.
2. To document the condition of wilderness campsites.
3. To evaluate campsite density per management area.
4. To evaluate wilderness solitude by the closeness of wilderness campsites to each other and by monitoring the number of inter-party wilderness encounters.
5. To determine the average length of visitor stay in the wilderness.
6. To establish the impact, or lack thereof, of recreational stock use on each backcountry campsite.
7. To evaluate change in width and trail depth and to analyze and document multiple trailing on established wilderness trails and campsite social trails.
8. To monitor the effects of winter recreation within the Wilderness.
9. To monitor for motor vehicle intrusions into the Wilderness.

## PROCEDURES:

1. Campsites in Big Indian Gorge, Little Blitzen Gorge, Wildhorse and Little Wildhorse Gorges, Little Indian Gorge, Pike Creek Canyon, Cold Springs Canyon, Mud and Ankle Creeks and the Donner und Blitzen River will be monitored. Each site will be assigned a rating of minimum, moderate, high or extreme impact according to an modified Cole monitoring form. Camps will be plotted on maps. The wilderness will continue to be surveyed for additional campsites. The exception is at Wildhorse Lake where camping is only allowed at two established and designated campsites. Any sign of other campsites within Wildhorse Lake basin should be reported, dismantled and naturalized immediately. Also, any sign of campsites at Little Wildhorse Lake will be eliminated.
2. Recreational stock use and impacts on campsites will be recorded on a campsite inventory form.
3. Parties discovered camped within sight or sound of each other will be documented on an occupied campsite form to evaluate degree of wilderness crowding and opportunities for solitude. Any comments made by visitors from the trailhead registration pages should be used in conjunction with the compiled ranger data.
4. Inter-party wilderness encounters, on and off trail will be documented and monitored using a wilderness encounter form to evaluate degree of wilderness crowding and opportunities for solitude. Comments made by visitors from the trailhead registration pages should be used in conjunction with the compiled ranger data.
5. Trail counter data (to be installed 2004) will be used in conjunction with completed visitor registration forms and ranger field observations to determine wilderness recreation use numbers.
6. Average length of visitor stay will be monitored by tallying information on trailhead registrations at Big Indian, Little Blitzen, Wildhorse Lake, Pike Creek and the Donner und Blitzen River.

7. Trail width, depth and multiple trailing will be monitored on established wilderness trails and will be recorded on a trail monitoring form. Established trails include Big Indian, Little Blitzen, Wildhorse Lake, Pike Creek, Mud/Ankle Creek, and the Donner und Blitzen River trail. A random number table was used to determine the points where the trail monitoring should be done. The numbers 1, 2, 4 and 7 were chosen from the random number table to reflect the approximate mile points where the trail monitoring would occur. At these points, a GPS reading will be taken and the monitoring conducted at these points. The exceptions are the Donner und Blitzen River trail where the trail is not seven miles long so only miles one, two and four will be used. Pike Creek trail is less than four miles long, so miles one and two will be used. On the Wildhorse Lake trail, the monitoring will be done along the steep upper slope and on the lower, flat meadow area.
8. A winter use recreation monitoring form will be completed by BLM personnel after each monitoring trip into the winter recreation use area. The monitoring will include user activity and will also document any intrusions into the wilderness which will be noted as violations. The winter use recreation area is defined as “from the snowline on the North Loop Road to the Kiger Gorge overlook”.
9. A winter recreation use registration box will be installed along the North Loop Road upon closure of the road for the winter season to estimate use of ‘walk up’ visitors and those who do not wish to acquire a winter use permit. This data will also be used in conjunction with ranger field observations to evaluate degree of wilderness crowding and opportunities for solitude. This box should be retrieved at the end of the winter recreation season.
10. A wilderness motor vehicle intrusion monitoring form will be completed by BLM personnel after any observation of motor vehicle use and intrusion into the Wilderness from any road. Such monitoring will be year-long, including winter months. The monitoring will include user activity and will also document any intrusions into the wilderness which will be noted as violations. The category of ‘motor vehicle’ will include, but not be limited to, off-highway vehicles (OHV) and snowmobiles.

#### **FREQUENCY:**

1. Campsite inventories will be completed twice during the season, using the campsite inventory form.
2. Big Indian, Little Blitzen, Pike Creek, Donner und Blitzen River, Wildhorse Canyons, Cold Springs, Little Indian, Little Wildhorse, and Kiger Canyons and Mud and Ankle Creeks will be monitored twice – once in early summer and once in early fall. Other locations may be added if deemed necessary.
3. Recreational stock use and impacts will be monitored twice a year with the regular campsite inventory.
4. The occupied campsite form will be filled out whenever anyone camping in the wilderness is encountered, including the monitoring personnel.
5. The wilderness encounter form will be filled out every day spent in the wilderness, regardless if someone is encountered or not.
6. Visitor trailhead registration sheets will be collected when a page becomes full, or nearly full. This is to ensure that pages are not stolen or defaced. This includes the winter use registration box.
7. Calibration of trail counters and the observation by rangers of visitor trailhead registration boxes should be done to achieve better wilderness use numbers. Trail counter calibration should be done once a month by either physically observing the number of people crossing over the counter or by BLM personnel walking over the counter a number of times and verifying the number of crosses with the counter. Registration boxes should be observed for a minimum of 4 hours a day twice a month to help determine visitor registration rates. In both cases, calibration should be done with the ranger out of view of the visitors.
8. The established GPS points on the trails will be monitored at the beginning and end of every summer season.
9. Winter recreation use will be monitored on the North Loop Road to the Kiger overlook, as snow conditions and personnel allow and preferably twice a month. The Nye Cabin Road and Dingle Creek Road will be monitored if use by snowmobiles has been observed.

10. Monitoring of motorized vehicle use intrusions into the wilderness will occur whenever such intrusions are observed. Also, a strategy will be developed for patrolling for intrusions if such levels increase.

**FILES:**

Completed forms, photographs and maps will be kept in a file in the wilderness office. In addition, a wilderness database will be created for ease of organization and retrieval of monitoring information. Data collected will be summarized annually, and compiled into a yearly monitoring report.

# STEENS MOUNTAIN WILDERNESS MONITORING INDICATORS

## Indicator 1: Campsite Condition

- Monitor using the campsite inventory form.
- Monitored twice a year; once in early summer and again in early fall.
- Take photos of each campsite at the beginning of the summer season to measure off-season recovery rate and again in early fall to measure summer usage.
- Campsite condition is defined as a human or recreational stock caused change in the land and is measured by comparison with an adjacent plat of land.
- Maintain a permanent file for each campsite in the wilderness office containing an updated inventory form, photos and a detailed map of the campsite.
- Attention should be paid to any changes in rating.
- Document ratings and map campsites on a large campsite inventory map. Symbols should go next to campsite number. Place a symbol next to the corresponding campsite number each year to easily indicate a change in status. Symbols are as follows:
  - Red circle: minimum impact
  - Blue triangle: moderate impact
  - Green square: heavy impact
  - Yellow star: extreme impact
  - Black rectangle: site has been naturalized and is being monitored

## Indicator 2: Campsite Density

- Monitor density using the campsite inventory form as a guideline.
- Measured per each management area, the Gorge and the Uplands.
- A campsite is defined as an area of human flattened vegetation where it can be inferred that at least one person camped or spent a considerable amount of time.
- A campsite could have a fire ring, structures, etc..., but doesn't have to in order to be labeled a campsite.
- All campsites found within the wilderness boundary should be inventoried, inspected, documented, labeled and mapped on 7 ½ minute topographic maps.
- When a campsite has been rehabilitated by natural or human means and has been monitored for a period of three summer seasons without further use, it can be taken out of the system.
- If an area was rehabilitated, then camped in again, the site will be put back in the system.
- As new campsites are found, these should be inventoried, documented, and added to the campsite map.
- Once a year, preferably at the end of the summer season, the number of campsites per management area will be counted and analyzed by monitoring personnel. Special attention should be given to the number of new campsites created and any change in campsite rating.

## Indicator 3: Perception of Solitude

1. Number of other parties camped within sight or continuous sound per canyon or destination area (not including car camping on or near wilderness boundaries.)

- Monitor using the occupied campsite form and trailhead registration pages.
- Campsites within sight or sound of each other are defined as two or more campsites situated 100 yards or less from each other.
- Monitored whenever an occupied campsite is seen, including that of monitoring personnel, within the wilderness boundary. This does not include car camping on wilderness boundaries or off cherry stem roads.
- Document also if no campsites are seen within sight or sound of a particular camp.
- If the same group previously monitored is seen on a different day, document them again as a new entry.
- Record a given camp only once a day.

- Visitor comments (i.e. “I camped next to a party of 8 on Tuesday”) can be used as reliable monitoring information if their whole trip can be documented. This includes dates, camp locations, and the number of occupied campsites within sight or sound every night of their trip.
- Rangers should not go out of their way to camp near someone.
- Completed forms will be filed and an analysis completed at the end of each summer season.

## 2. Number of wilderness encounters per day on or off trail, per canyon or area.

- Monitor using the wilderness encounter form.
- An encounter is defined as a situation within the wilderness boundary when two or more separate parties pass each other, talk to each other, or are close enough to hear each other. This includes all areas except campgrounds.
- Count people viewed from a distance as an encounter.
- Monitor number of encounters every day spent in the wilderness, along with specific location and party size. If no one is encountered on a given day, this too should be documented.
- Visitor comments (i.e. “There were 6 people at the headwall of the gorge yesterday”) can be used as reliable monitoring information if their whole trip can be documented. This includes dates, camp locations and the number of encounters during their trip.
- Completed forms be filed and analysis completed at the end of each summer season.

### Indicator 4: Trail Conditions

- Monitor trail width, trail depth, and multiple trailing of established wilderness and campsite social trails using a standard trail monitoring form.
- Established wilderness trails include Little Blitzen, Big Indian, Donner und Blitzen River, Pike Creek, and Wildhorse Lake. The Mud/Ankle Creek trail will be monitored in the future if and when ‘single track’ trail conditions exist.
- Monitor campsite social trails and map them on the campsite inventory form.
- For established wilderness trails, use the established GPS points along each trail to be monitored and continue to use these same points every year.
- Monitor condition of established trails twice a year, once at the beginning of the summer season and once at the end.
- Monitor any newly discovered or created established trails similarly.

### Indicator 5: Length of Stay

- Assess length of stay primarily by retrieval of visitor registration self sign in books at trailheads, as well as information gathered from wilderness ranger visitor contacts.
- Place visitor registration books at the following trailheads: Big Indian, Little Blitzen, Donner und Blitzen River, Pike Creek, the South Steens equestrian campground, Mud/Ankle Creek and Wildhorse Lake.
- Post a sign at each trailhead that explains why it is important to sign in.
- Analyze information annually.

### Indicator 6: Recreational Stock Use

- Monitor recreational stock use on a section of the campsite monitoring form.
- Recreational stock impacts that will be assessed include root exposure of trees due to stock, tree girdling and evidence of stock by the presence of feed and manure.
- Analyze the relationship between frequent stock use and campsite impact ratings annually.
- Evidence of cows, specifically manure, is not to be used as evidence of stock within the campsite.

### Indicator 7: Motor Vehicle Intrusions

- Monitor motorized vehicle intrusions into the wilderness on the motor vehicle intrusions monitoring form.

- Intrusions into the wilderness by any type of motor vehicle including, but not limited to, OHVs and snowmobiles will be assessed.
- Monitoring will occur year-round, including winter months, whenever intrusions are observed.
- Analyze the need to restrict or discontinue motorized vehicle use in certain areas based on the number of motor vehicle intrusions into the wilderness over the established time period.

## Steens Mountain Wilderness Campsite Monitoring Form

### LOCATION

1. Campsite #                      2. Survey Time and Date:                      3. Former Names
4. Township                      Range:                      Section:                      ¼ Section                      ¼ ¼ Section
5. GPS Coordinates:                      5a. Elevation
6. Closest Trailhead

### DESCRIPTION

7. General Description
8. Tent Sites (# of tent sites and location within the campsite):
9. Other Notes (Cultural Resources, Prominent Natural Features, Interesting Hikes):

### WATER

10. Type and location of freshwater source:
11. Distance from campsite to water:

### MONITORING

12. Recent Ranger Updates  
Dates:                      Ranger:                      Length of Site Check:
13. Can sounds/noised be heard from adjacent campsites?
14. Number of campsites within 100 yards:
15. Distance from campsite to trail:
16. Firewood availability:
17. Distance to nearest campsite (over 100 yards not to be monitored):
18. Outfitter/Guide use:
- 19: Visitor record (visitors seen, contacted, and inferred):
20. Wildlife Observations:
21. Photo Point:

## Steens Mountain Wilderness Campsite Monitoring Form

**22. MAP OF CAMPSITE** (Draw a detailed map that includes measurements, compass directions, social trails, geologic and natural features, tent site locations, and mineral soil exposure.)

**Steens Mountain Wilderness  
Campsite Monitoring Form (continued)**

	<b>Inside Campsite</b>				<b>Outside Campsite</b>			
<b>23. Vegetation Cover</b>	0-5%	6-25%	26-50%	51-75%	0-5%	6-25%	26-50%	51-75%
	76-100%				76-100%			
<b>24. Mineral Soil Exposure</b>	0-5%	6-25%	26-50%	51-75%	0-5%	6-25%	26-50%	51-75%
	76-100%				76-100%			

<i>Human-caused ratings</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>Impact Index</i>
<b>25. Vegetation Loss</b>	No difference in cover	Difference of one coverage class	Difference of two or more coverage classes	x 2 =
<b>26. Mineral Soil Increase</b>	No difference in cover	Difference of one coverage class	Difference of two or more coverage classes	x 3 =
27. Human Caused Tree Damage # of trees scarred = # of trees felled =	0-25% of all trees in site scarred or felled or have broken lower branches	26-50% of all trees in site scarred or felled or have broken lower branches	More than 50% of all trees in site scarred or felled or have broken lower branches	x 3 =
<b>28. Development</b>	None	1-2 rock or log structures	More than 2 structures	x 1 =
29. Cleanliness # of fire rings = Litter?	No more than evidence of fire. No fire ring or litter.	One fire ring, some litter, one burnt log or up to 50% of rocks in site scarred	More than one fire ring, or a large amount of litter, or any sign of human waste, or greater than 50% of rocks in site scarred, or more than one burnt log	x 1 =
<b>30. Social Trails # of trails =</b>	No more than one discernable trail	Up to 3 discernable trails	More than 3 discernable trails	x 2 =
<b>31. Camp Area = sq ft</b>	0-500 sq. feet	501-1500 sq. feet	More than 1500 sq. feet	x 3 =

<i>Recreational Stock Ratings</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>Impact Index</i>
<b>32. Root Exposure</b>	0-25%	26-50%	More than 50%	x 3 =
<b>33. Tree Girdling</b>	0-1 tree girdled	2 to 3 trees girdled	More than 3 trees girdled	x 3 =
<b>34. Evidence of Recreational Stock</b>	None	Manure or feed only	Manure, feed and/or tree damage present.	x 3 =

**35.** Minimum Impact 20 - 29    Moderate Impact 30 - 39    Heavy Impact 40 - 49    Extreme Impact 50+  
Total Impact Index Total =  
( include stock totals )

**36.** Minimum Impact 9 - 12    Moderate Impact 13 - 15    Heavy Impact 16 - 19    Extreme Impact 20+  
Total Impact Stock Total =

## Steens Mountain Wilderness Campsite Monitoring Form Instructions

A permanent file located in the wilderness office will be maintained that will contain campsite inventory forms, photos, and a map of the campsite. In addition, there should be a separate file for each area (see below #1) including a 7 ½ minute map with all area campsites marked by GPS points. Campsites should be monitored twice a year, once at the beginning and once at the end of the summer season.

- 1) Campsite #: Record current campsite number. This is a three or four digit identifier unique to each campsite. The first two digits refer to a particular area or drainage and are as follows:

Wildhorse Lake: WH  
Cold Springs Canyon: CS  
Mud Creek: MC  
Ankle Creek: AC  
Big Indian: BI  
Little Blitzen: LB  
Donner und Blitzen River East: BRE  
Donner und Blitzen River West: BRW  
Pike Creek: PC

The third and fourth numbers will be numbers that reflect the order in which the site was discovered. Other areas will be added as needed.

- 2) Survey date: Enter the exact time and date the campsite was monitored. Record as DAY-MONTH-YEAR-TIME. Both are crucial in organizing field photos with a digital camera.
- 3) Former names: For comparison with past inventories, record any nicknames or former names. For newly discovered campsites, a name may be assigned if desired.
- 4) Township, range, section and quarter section: Fill in the correct grid information.
- 5) GPS coordinates: Enter coordinates. Take reading in the same place as the campsite photo.
- 6) Closest trailhead: Record the closest trailhead. Established trailheads include Big Indian, Wildhorse Lake, Little Blitzen, Donner und Blitzen River, Mud/Ankle Creek, Pike Creek.
- 7) General description: Give a description of the campsite including size, impact, vegetation type and anything else you can think of.
- 8) Tent Sites: Enter the number of tent sites, condition of sites and general location of each site.
- 9) Other notes: Include information on cultural resources, natural features, nearby hikes, etc.
- 10) Freshwater sources: Record name of river, creek or drainage. Document up to two sources.
- 11) Distance from campsite to water: This is the distance in feet the campsite is from a perennial or annual river, spring, creek or lake. Measure the distance from the middle of the campsite.
- 12) Recent ranger updates: Include the date, your first and last name, and the length of time you spent monitoring the campsite.
- 13) Sounds from adjacent campsites: Include any human or stock noises heard from any other nearby campsite. Record on the occupied campsite form.
- 14) Number of campsites within 100 yards: Record number and name of any campsite, regardless if the other site is occupied by a camping party or not. Record on the occupied campsite form.
- 15) Distance from campsite to an established trail system: Measure the distance in feet from the nearest trail to the campsite. If the nearest trail is miles away, round to the nearest tenth of a mile. Differentiate between an established trail and a social trail and measure from the middle of the campsite. Current established trail systems include Donner und Blitzen River, Wildhorse Lake, Big Indian, Mud/Ankle Creek, Little Blitzen and Pike

Creek.

- 16) Firewood availability: Walk around the campsite and note the different types of possible firewood on the ground. Record the nearest distance in feet from the center of the campsite to the closest available wood. This should be enough to make a small fire for one night, approximately 2 cubic feet of varying sizes of wood, including kindling. Do not count already collected firewood. Also make note of the type of firewood available in the area.
- 17) Distance to nearest campsite: This is meant to be a check for future seasons. Only monitor the distance up to 100 yards. Anything over, just leave the section blank.
- 18) Outfitter/Guide use: Record encounters with guides as well as groups that are known to use the site.
- 19) Visitor record: Document number of visitors seen, contacted, and/or inferred at the campsite. Be sure to also document on the occupied campsite and wilderness encounter forms.
- 20) Wildlife observations: Includes any wildlife sightings, big or small, furry or feathered observed at the campsite. Also include any intriguing tracks.
- 21) Photo point: Take photos at the same location where the GPS reading was taken, preferably the center of the site. Take four photos at each site which point towards the four cardinal directions; north, east, south and west.
- 22) Campsite Map: Draw a detailed map of the campsite. Include measurements, compass directions, social trails, geologic features, locations of tent sites and any mineral soil exposure. Keep a permanent map of each campsite in each campsite file. Make a copy of the map and mark in pencil any changes to the campsite. The map drawing may be done only once per season.
- 23) Vegetative cover (Inside campsite): Study the ground on the inside of the campsite thoroughly. Speculate, on average, what percentage of the ground is covered by vegetation. Do not count trails going through camp. Do not count satellite areas outside the site into the equation such as stock areas, tent pads, kitchen areas, etc. Circle 0-5%, 6-25%, 26-50%, 51-75%, or 76-100%.  
Vegetative cover (Outside campsite): Study the ground at least 20 feet outside of the campsite thoroughly. Speculate, on average, what percentage of the ground is covered by vegetation. Circle 0-5%, 6-25%, 26-50%, 51-75%, or 76-100%.
- 24) Mineral soil exposure (Inside campsite): Study the ground on the inside of the campsite thoroughly. Speculate, on average, what percentage of the ground has mineral soil exposed. Mineral soil is defined as bare soil with no vegetation growing anywhere. If there are sprouts of any kind growing, then it does not count as mineral soil. Do not count trails going through camp. Do not count satellite areas outside the site into the equation such as stock areas, tent pads, kitchen areas, etc. Circle the correct percent of mineral soil that is exposed; 0-5%, 6-25%, 26-50%, 51-75%, or 76-100%.  
Mineral soil exposure (Outside campsite): Thoroughly study the ground at least 20 feet outside of the campsite. Speculate, on average, what percentage of the ground has mineral soil exposed. Circle the correct percent of mineral soil exposed. Circle 0-5%, 6-25%, 26-50%, 51-75%, or 76-100%.
- 25) Root Exposure: Calculate the percentage of trees with roots exposed from human use. Do not count trees that have naturally exposed roots. Count trees with damages roots before scarred trees. Do not count a tree for both root exposure and scarring. Find impact index.
- 26) Tree Girdling: Defined tree damage encircling the tree. Count tree girdling before scarring and root exposure. Do not count any girdled tree for root exposure and scarring. Find impact index.
- 27) Evidence of stock: Be sure that the evidence points to horse, mule, llama or other pack animal dung, not a wild animal or cattle. Find impact index.
- 28) Vegetation loss: Take note of the difference in coverage classes from number 23, vegetative cover. Circle the appropriate box. Under the Impact index, multiply the rating number above the box you circled by the number already in the Impact index box. For example, if you recorded campsite vegetative cover was 50% inside the site and 75% outside the site, this would be a difference of one coverage class with a rating of 2. You would then multiply the 2 by 2, for a total of 4.

- 29) Mineral soil increase: Take note of the difference in coverage classes from number 24, mineral soil exposure. Circle the appropriate box. Under the impact index, multiply the rating number above the box you circled by the number already in the impact index box. For example, if you recorded the average percentage of mineral exposed was 25% inside the site and 5% outside the campsite, this would be a difference of one coverage class with a rating of 2. You would then multiply the 2 by 3, for a total of 6.
- 30) Tree damage: Record the number of trees scarred inside as well as immediately outside the campsite. Scarred trees include anything nailed or inserted in a tree, or anything carved into a tree. One nail found in a tree counts as scarring. Girdling does not count, as there is a separate section for recreational stock use. Record number of felled trees within and immediately outside of the campsite. Calculate the percentage of scarred and/or felled trees and circle the appropriate percentage. Multiply the rating by 3 to get the impact index.
- 31) Development: This counts as any human made structure and includes, but is not limited to rock chairs, alters, backrests, log benches, meat hangers, seats or tables. Circle the category and calculate the impact index.
- 32) Cleanliness: Count the number of fire rings and document whether or not litter is present. Count all fire rings and sites of repeated fires, with or without rock rings. Faint scars or sites of one time use should not be counted. If there is more than one fire ring, a large amount of litter, more than one burnt log or any evidence of human waste, rating 3 should be circled and the impact index would be a 3.
- 33) Social Trails: Any trail, besides the main trail that leads from the site. These are side trails which provide access to water, other sites, viewpoints, firewood, bathroom places, etc. Find impact index. Draw all social trails on the map drawn of each campsite.
- 34) Camp area: This is the total camp area in square feet measured by using a tape measure. Measure satellite areas (stock areas, tent pads, etc.) outside the site and add them to the total site size. Calculate the impact index.
- 35) Add up all of the impact indexes to find the total index. Designate impact by circling either minimum, moderate, heavy or extreme impact.
- 36) Add up the three stock indexes to find the total stock impact index. Designate impact by circling either minimum, moderate, heavy or extreme stock impact.



# Steens Mountain Wilderness Trail Monitoring Form Instructions

## A. Trail width:

- 1 = Slight. Trail widening is occurring > 24", but is occurring in dry and sandy or upland soils with little impact to vegetation and little soil compaction. Trail is likely to become wider.
- 2 = Moderate. Trail widening is occurring 24" to 36", and is occurring in an area of sensitive riparian vegetation, causing moderate damage to riparian vegetation and sod, some moderate soil erosion is occurring along dry areas where soil productivity is affected. Potential for increased damage likely.
- 3 = Severe. Trail widening > 36" within a wet riparian/meadow area or adjacent stream crossing causing significant damage to sod and active erosion is occurring. Condition is in an active state and has a potential to become worse.

## B. Trail depth:

- 1 = Slight. Slightly depressed trail is evident. Slight root exposure is noticeable.
- 2 = Moderate. Tread depth shows active erosion and the trail is incising. Tread is less than 12 inches below ground surface. Evidence of scour and sediment is leaving the trail and a moderate amount may be entering stream channels where trail is adjacent to streams. Beginning stages of gullying is starting to form.
- 3 = Severe. Trail is actively eroding, gullies are present. Tread is greater than 12 inches below ground surface. Evidence of sediment transport into stream channels at crossings is apparent. Trail is in an eroded state and difficult to tread.

## C. Multiple trailing:

- 0 = None
- 1 = Slight. Multiple trailing is occurring, though not in an advanced condition.
- 2 = Moderate. Two to three trails have formed, some moderate damage has occurred to sod and riparian vegetation, some erosion within the trail troughs. Condition is worsening.
- 3 = Severe. Two to three trails have formed, have deeply incised troughs, loss of sod and damage to riparian vegetation is occurring.







# Steens Mountain Wilderness Winter Recreation Monitoring Form

Name(s): \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Area(s) Visited: \_\_\_\_\_  
What Road, Mile Mark, Elevation or Landmark

Road Conditions: \_\_\_\_\_

Snow Conditions/Elevations: \_\_\_\_\_

Your Activity: \_\_\_\_\_  
Snowmobiling, Skiing, Snowshoeing, Driving

Number & Type of Vehicles Encountered: \_\_\_\_\_

User Activity & Numbers - Snowmobiling: \_\_\_\_\_ Skiing: \_\_\_\_\_ Snowshoeing: \_\_\_\_\_

Describe User Activity: \_\_\_\_\_  
# people encountered, track type(s), location, etc.

Wildlife Observed: \_\_\_\_\_  
Type(s), Numbers, Tracks, Location

Wilderness/WSA Violations: \_\_\_\_\_

Other Comments: \_\_\_\_\_

Landmark Notes:    1<sup>st</sup> Cattle Guard .2 mi            2<sup>nd</sup> Cattle Guard: 1.6 mi            3<sup>rd</sup> Cattle Guard (Lake Creek Turnoff): 6.7 mi  
                          4<sup>th</sup> Cattle Guard: 9.5 mi            5<sup>th</sup> Cattle Guard: 12.3 mi            6<sup>th</sup> Cattle Guard (Fish Lake): 13.7 mi

Elevations:            Page Springs Gate: 4200'            Juniper Line: 5400'            Fish Lake: 7400'            Kiger Gorge Overlook Turnoff: 8800'

\*\*Attach photos, if any to this form

# Steens Mountain Wilderness Motor Vehicle Intrusion Monitoring Form

Name(s) of Observer(s): \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Area(s) Location(s): \_\_\_\_\_

\_\_\_\_\_

Road Name(s): \_\_\_\_\_

GPS or Map Legal Description(s): \_\_\_\_\_

Number of Vehicles /Tracks Encountered: \_\_\_\_\_

Vehicle Description(s)/License Number(s): \_\_\_\_\_

\_\_\_\_\_

Describe User Activity: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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Wilderness Violation(s): \_\_\_\_\_

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Other Comments: \_\_\_\_\_

\_\_\_\_\_

**\*\*\*Attach photos to this form**