

**National Park Service  
U.S. Department of the Interior**



**Yellowstone National Park  
Grand Teton National Park  
John D. Rockefeller, Jr. Memorial Parkway  
Wyoming, Montana, Idaho**

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## **Winter Use Plans Record of Decision**

Recommended:

A handwritten signature in cursive script that reads "Suzanne Lewis".

Suzanne Lewis  
Superintendent  
Yellowstone National Park

Approved:

A handwritten signature in cursive script that reads "Michael D. Snyder".

Michael D. Snyder  
Intermountain Regional Director  
National Park Service

Effective on:

November 20, 2007

Date

2:30 p.m. MST

Time

WINTER USE PLANS RECORD OF DECISION  
Yellowstone and Grand Teton National Parks and the John D. Rockefeller, Jr. Memorial Parkway

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**UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE**

**RECORD OF DECISION**

**WINTER USE PLANS  
ENVIRONMENTAL IMPACT STATEMENT**

**Yellowstone National Park  
Grand Teton National Park  
John D. Rockefeller, Jr. Memorial Parkway**

**Wyoming, Montana, Idaho**

The Department of the Interior, National Park Service has prepared this Record of Decision on the Winter Use Plans/Final Environmental Impact Statement (FEIS) for Yellowstone and Grand Teton national parks and the John D. Rockefeller, Jr. Memorial Parkway. This Record of Decision (ROD) includes a description of the background of the project, a statement of the decision made, a listing of measures to minimize environmental harm, synopses of other alternatives considered, the basis for the decision, findings on impairment of park resources and values, a description of the environmentally preferable alternative, and an overview of public and agency involvement in the decision-making process.

**BACKGROUND OF THE PROJECT**

The purpose of the winter use plans is to provide a framework for managing winter use activities in Yellowstone and Grand Teton national parks and the John D. Rockefeller, Jr. Memorial Parkway (Parkway; collectively Parks). The goal of the plans is to provide park visitors with a range of appropriate winter recreational opportunities, while ensuring that these activities do not lead to unacceptable impacts or the impairment of park resources and values. This purpose is underpinned by laws, regulations and policies that establish the basis for managing units of the National Park System.

The intent of a plan is to achieve, as well as practicable, a set of desired conditions or goals. The existing conditions, for purposes of this planning effort, are the historical conditions that existed prior to the last four winters of managed use. Because those conditions led to impairment of park soundscapes, wildlife, air quality, and visitor experience, they clearly indicated a need for change. Thus, the term “historical conditions” is used to describe the conditions that existed during the 1990s. Between 1963 and 2003, snowmobile use was largely unmanaged. Use during those decades peaked in the 1990s. The historical conditions, compared to the desired conditions, illustrate the need for action, or the need for a winter use plan.

Desired and historical conditions are juxtaposed in Table 1. Throughout the several winter use planning efforts undertaken by the NPS since 1990, the planning goals and existing conditions have remained essentially the same. They are restated here in a way that articulates each condition as a discrete topic, for ease in analysis. The desired conditions have been updated in light of the *Management Policies 2006*.

Also, consistent with the decisions of the United States District Court for the District of Columbia, the FEIS addresses various concerns regarding the winter use 2003 Supplemental EIS. These include road grooming and bison movement, compliance with NPS mandates,

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and the effectiveness of mitigation measures. Consistent with the decisions of the United States District Court for the District of Wyoming, the FEIS addresses various concerns regarding the 2000 EIS. These include snowcoaches, public and cooperating agency involvement, and guiding requirements.

This decision will provide a long-term framework for managing winter use in the Parks, and provides the basis for promulgation of the special regulations that are necessary to implement many key elements of the winter use plans. The regulations governing winter use in the Parks that have been in effect since 2004 include specific provisions that provide the authority to allow the operation of both snowmobiles and snowcoaches in the Parks. Since those regulations were intended to implement a temporary winter use plan, the specific provisions that actually authorize the recreational use of snowmobiles and snowcoaches provide that authority only through the winter of 2006-2007. Thus, without a revision to those regulations, or promulgation of new regulations, the NPS lacks the authority to allow the use of either recreational snowmobiles or snowcoaches in the Parks beginning with the 2007-2008 winter season. This ROD will provide the basis for the decisions reflected in the promulgation of new regulations for winter use management in the Parks.

This Record of Decision is not the final agency action for those elements of the plans that require promulgation of regulations to be effective. Promulgation of such regulations will constitute the final agency action for such elements of the Winter Use Plans.

Table 1: Desired Versus Historical Conditions for Winter Use Planning

Desired Conditions	Historical Conditions
<i>Visitor Access</i>	
<p>Visitors have access to a range of appropriate activities for enjoyment of the park resources and values during the winter. Appropriate winter recreation is that which does not cause unacceptable impacts on unique characteristics of winter settings within the parks, while permitting their enjoyment and protection. Appropriate activities are those which promote understanding of the purposes for which the parks' resources are being preserved, and those which promote the health and personal fitness of the general public.</p>	<p>Access for personal motorized use via snowmobile increased greatly since the beginnings of the winter program, while access for "quiet" winter use decreased in relation to it. Snowmobile use, in historical numbers, is inconsistent with winter park landscapes that uniquely embody solitude, quiet, undisturbed wildlife, clean air vistas and the enjoyment of these resources by those engaged in non-motorized activities.</p>
<i>Visitor Experience</i>	
<p>Visitors experience high quality winter activities with a sense of appreciation and enjoyment that is consistent with the condition for visitor access. Recreation experiences enhance the enjoyment of park resources and values, while protecting the experiences of other park visitors. Conflicts among user groups are minimal. Reduced oversnow vehicle sound and emission levels enhance the visitor experience. Visitors participate in winter use activities without damaging resources.</p>	<p>A variety of winter use conflicts have been identified involving the relationship between users and among different user groups. Each of these conflicts affects how people experience the parks. At destination facilities and trails open to both motorized and non-motorized users, the latter express dissatisfaction with the sound, odor, and number of snowmobiles as affecting the solitude, quiet, and clean air that people expect to enjoy in the parks.</p>

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Desired Conditions	Historical Conditions
<i>Health and Safety</i>	
High quality facilities, programs and operations provide a safe and healthful environment for visitors and employees. The safety and health of persons will be ensured by identifying and preventing potential injuries from recognizable threats. Known hazards are reduced or eliminated. Visitors know how to participate safely in winter use activities, and they equip themselves for doing so. Reduced oversnow vehicle sound and emission levels protect the health and welfare of employees and visitors.	The level of snowmobile accidents, unsafe users, inherent winter risks, and conflicts between users is a public safety concern. The parks have documented health hazards from oversnow vehicle emissions and noise for both employees and visitors.
<i>Park Resources and Values</i>	
Park resources and values are protected from impairment by preventing unacceptable impacts. Reduced oversnow vehicle sound and emission levels protect air quality, natural soundscapes, and other resources that are dependent on those qualities. Impacts to wildlife are mitigated, and effective wildlife habitat is protected.	Sound and exhaust emissions from oversnow vehicles affect air quality, visibility, and natural soundscapes. Oversnow vehicle travel causes harassment and other unintended impacts on wildlife, especially at times when wildlife species are highly vulnerable to natural stressors.

**DECISION (SELECTED ACTION)**

**Description of the Selected Action**

This decision is primarily based upon Alternative 7 in the FEIS and strikes a balance between snowmobile and snowcoach use to provide an appropriate range of winter access while protecting park resources. Implementation of certain aspects of the decision will occur once the rulemaking is completed. Rulemaking is anticipated to be completed by late-November 2007.

As shown in Table 2 for Yellowstone National Park, 540 snowmobiles per day will be allowed, with the requirements that all snowmobiles meet NPS Best Available Technology (BAT) requirements for air and sound emissions and all snowmobilers travel with a commercial guide. In addition, 83 snowcoaches will be allowed per day. This decision will also manage several side-roads with temporal and spatial zoning to facilitate a variety of uses.

This decision includes an intensive monitoring and adaptive management program, which is outlined in Appendix A. The NPS will continue monitoring of park resources and values, including air quality, natural soundscapes, wildlife, employee health and safety, and visitor experience. This will provide the NPS with the ongoing information necessary to assess the impacts resulting from implementation of this decision on park resources and values, and visitor access, and to make adjustments, as appropriate, in winter use management. The thresholds within the adaptive management framework are a tool for managers to help them determine if the goals and objectives of the winter use plans are being achieved. Managers will use monitoring results, along with changes in technology and other new information, to help inform future actions. Managers have at their disposal a wide variety of tools. Some of the management techniques available include adjustments in snowmobile or snowcoach use levels (up or down), adjustment in Best Available Technology requirements, visitor and guide education, timing of entries, and group sizes. Through adaptive management, if monitoring

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of use levels of snowmobiles and snowcoaches allowed under this Record of Decision indicates acceptable conditions, the NPS will increase use levels to the extent acceptable conditions can be maintained. Conversely, if monitoring of use levels of snowmobiles and snowcoaches allowed under this Record of Decision indicates unacceptable conditions, the NPS will reduce use levels to the extent acceptable conditions can be maintained.

This decision addresses Sylvan Pass in Yellowstone. For the winter season of 2007-2008 the pass will be managed continuing the combined program outlined in the 2004 Temporary Plan. After the winter of 2007-2008, in order to maximize risk reduction, the pass would be open and managed using full avalanche forecasting (as defined in the Sylvan Pass Operational Risk Management Assessment). When full forecasting indicates the pass is safe, the pass would be open to oversnow travel (both motorized and non-motorized access).

The National Park Service will, in good faith, work cooperatively with the State of Wyoming, Park County, Wyoming and the town of Cody to determine how to provide continued snowmobile and snowcoach motorized oversnow access to Yellowstone National Park through the East Gate via Sylvan Pass in the winter use seasons beyond 2007-2008.

The National Park Service will meet with representatives of the State of Wyoming, Park County, Wyoming and the town of Cody to further explore reasonable avalanche and access mitigation safety measures and costs. In order to provide adequate time to amend this Record of Decision reflecting a potential consensus of the parties and to promulgate a new regulation reflecting the amended decision for the 2008-2009 winter use season and beyond, consensus should be reached by June 1, 2008.

In future years, when Sylvan Pass is not open due to safety, the NPS will maintain the road segment from the East Entrance to a point approximately four miles west of the entrance station to provide for opportunities for cross-country skiing and snowshoeing. Limited snowmobile and snowcoach use will be allowed in order to provide drop-offs for such purposes. In addition, when the pass is not open due to safety, oversnow vehicle travel will be allowed on the road segment between Fishing Bridge and Lake Butte Overlook.

In Grand Teton National Park, 40 snowmobiles will be allowed on Jackson Lake each day in order to provide access for ice fishing, subject to the condition that they meet BAT requirements for air and sound emissions. In addition, the use of snowmobiles not meeting BAT requirements will continue to be allowed on certain designated routes in order to access inholdings or adjacent public and private lands.

Within the John D. Rockefeller, Jr. Memorial Parkway, 25 snowmobiles will be allowed to access the Grassy Lake Road at Flagg Ranch each day. The BAT requirement will not apply to snowmobiles using the Grassy Lake Road, and the daily entry limit will apply to snowmobiles originating a trip at Flagg Ranch.

The Continental Divide Snowmobile Trail (CDST) within both Grand Teton and the Parkway is a portion of a much longer trail that extends through northwest Wyoming to the Pinedale and Lander areas. Except for the segment of the CDST between the east boundary of Grand Teton and the vicinity of Moran Junction, this route will no longer be designated for snowmobile use, in essence converting it to a trailered segment of the CDST. Snowmobiles could be hauled between Moran Junction and Flagg Ranch, at that point connecting with the Grassy Lake Road and oversnow access to points in the Caribou-Targhee National Forest and beyond.

This decision also keeps in place for the 2007-2008 winter season a number of elements of the temporary winter use plan that has guided use of the Parks for the past three winters. This will provide for continuity of operations over a one-season period, thereby avoiding

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disruptions to park visitors, snowmobile and snowcoach operators, and local communities. Specifically, for the winter of 2007-2008, 720 BAT snowmobiles and 78 snowcoaches will continue to be allowed into Yellowstone, and Sylvan Pass will remain open for motorized oversnow vehicle travel (using a combination of helicopter and howitzer dispensed explosives to mitigate avalanche danger). In Grand Teton and the Parkway, a combined total of 140 snowmobiles will be allowed on Jackson Lake, the CDST, and the Grassy Lake Road, subject to the same BAT requirements that have been in effect the past three winters.

This decision addresses the purpose and need identified in the FEIS. Previous impairment to air quality and wildlife will be mitigated and the visitor experience, employee and visitor health and safety, and natural soundscape conditions will be improved. Visitor access will be facilitated through managed snowmobile and snowcoach use.

### **Key Actions**

#### **Actions Specific to Yellowstone**

##### ***Routes Open to Snowmobile Use***

The superintendent may open or close these routes, or portions thereof, for snowmobile travel after taking into consideration the location of wintering wildlife, adequate snowpack, public safety, and other factors. Notice of such opening or closing will be provided by one or more of the methods listed in 36 CFR 1.7(a).

The following routes are designated for snowmobile use:

- Grand Loop Road, from its junction with Upper Terrace Drive to Norris Junction
- Norris Junction to Canyon Junction
- Grand Loop Road, from Norris Junction to Madison Junction
- West Entrance Road, from the park boundary at West Yellowstone to Madison Junction
- Grand Loop Road, from Madison Junction to West Thumb
- South Entrance Road, from the South Entrance to West Thumb
- Grand Loop Road, from West Thumb to its junction with the East Entrance Road
- East Entrance Road, from the East Entrance to its junction with the Grand Loop Road
- Grand Loop Road, from its junction with the East Entrance Road to Canyon Junction
- South Canyon Rim Drive
- Lake Butte Road
- Firehole Canyon Drive, from noon to 9 p.m. only
- North Canyon Rim Drive, from noon to 9 p.m. only
- Riverside Drive, from noon to 9 p.m. only
- Cave Falls Road, with no BAT or guiding requirement, and a daily entry limit of 50 snowmobiles (which does not count against the 540 total in Yellowstone)
- Roads in the developed areas of Madison Junction, Old Faithful, Grant Village, West Thumb, Lake, East Entrance, Fishing Bridge, Canyon, Indian Creek, and Norris.

##### ***Routes Open to Snowcoach Use***

The superintendent may open or close the following oversnow routes, or portions thereof, or designate new routes for snowcoach travel after taking into consideration the location of

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wintering wildlife, adequate snowpack, public safety, and other factors. Notice of such opening or closing will be provided by one or more of the methods listed in 36 CFR 1.7(a).

All routes designated for snowmobile use are also open to snowcoach use. In addition, the following routes are open to snowcoaches:

- Firehole Canyon Drive, all day (7 a.m. to 9 p.m.)
- Fountain Flat Road
- North Canyon Rim Drive, all day (7 a.m. to 9 p.m.)
- Riverside Drive, all day (7 a.m. to 9 p.m.)
- Grand Loop Road, from its junction with Mammoth Terrace Drive to its junction with North Entrance Road
- Roads in the developed area of Mammoth Hot Springs
- Grand Loop Road, from Canyon Junction to the Washburn Hot Springs overlook.

### **Guiding Requirements**

- All snowmobilers in Yellowstone, except those on the Cave Falls Road, will be required to travel with a commercial guide who is affiliated with a commercial guiding service that is authorized by contract to operate in the park.
- No more than eleven snowmobiles will be permitted in a group including at least one commercial guide. That is, group numbers include the commercial guide sled(s).
- All snowcoaches operating in the park will have to operate in accordance with a concessions contract. Private snowcoaches will not be allowed, beginning with the winter of 2008-2009.
- All businesses providing commercial guiding services and other commercial services in the park are required to have contracts authorizing their operation.

### **Snowmobile and Snowcoach Limits**

Table 2: Yellowstone Daily Snowmobile and Snowcoach Entry Limits\*

<b>Entrance**</b>	<b>Commercially Guided Snowmobiles</b>	<b>Commercially Guided Snowcoaches</b>
West Entrance	300	37
South Entrance	170	10
East Entrance	30	2
North Entrance	20	15
Old Faithful	20	19
Total	540	83

\* The numbers of snowmobiles and snowcoaches allocated to a particular entrance may be adjusted (with the parkwide totals not to exceed 540 and 83, respectively), depending on the results of analysis for concession contracts. A change in the number of snowcoaches permitted might not be implemented until new snowcoach contracts are issued (in approximately 2013), depending on the need. Snowmobiles on the Cave Falls Road do not count against the 540 limit.

\*\* For the winter of 2007-2008 only, the following snowmobile allocations will be in effect: West Entrance, 400; South Entrance, 220; East Entrance, 40; North Entrance, 30; and Old Faithful, 30 (total 720). The following snowcoach allocations will apply in 2007-2008 only: West Entrance, 34; South Entrance, 10; East Entrance, 3; North Entrance, 13; and Old Faithful, 18 (total 78).

### **Non-Motorized Access**

- Backcountry non-motorized use will continue to be allowed throughout the park (see the “sensitive areas” exception below), subject to the Winter Severity Index program. The



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program restricts backcountry use of the park when winter snowpack and weather conditions become severe and appear to be adversely affecting wildlife.

- Snow road edges may continue to have track set for skiing where feasible.
- About 35 miles of roads will continue to be groomed for cross country skiing in Yellowstone. These are mainly roads used by summer vehicles, but which are closed to oversnow vehicle travel. These roads may continue to be machine groomed for skiing. Existing and new routes could be evaluated in the future, and changes announced through one or more of the methods listed in 36 CFR 1.7(a). The Virginia Cascades Road in Yellowstone may be groomed for skiing.
- Ski and snowshoe use of the South Entrance Road and East Entrance Road will be allowed to continue after the balance of roads close to winter operations (during spring plowing). When spring plowing operations approach the entrances, the roads will then be closed to skiing and snowshoeing for safety concerns. Bear management closures of the park's backcountry will continue as in previous years.
- Sensitive areas within the inner gorge of the Grand Canyon of the Yellowstone and the McMinn Bench bighorn sheep area will continue to be closed to recreational winter use.

#### ***East Entrance Road***

- This decision addresses Sylvan Pass in Yellowstone. For the winter season of 2007-2008 the pass will be managed continuing the combined program outlined in the 2004 Temporary Plan. After the winter of 2007-2008, in order to maximize risk reduction, the pass would be open and managed using full avalanche forecasting (as defined in the Sylvan Pass Operational Risk Management Assessment). When full forecasting indicates the pass is safe, the pass would be open to oversnow travel (both motorized and non-motorized access).
- The National Park Service will, in good faith, work cooperatively with the State of Wyoming, Park County, Wyoming and the town of Cody to determine how to provide continued snowmobile and snowcoach motorized oversnow access to Yellowstone National Park through the East Gate via Sylvan Pass in the winter use seasons beyond 2007-2008.
- The National Park Service will meet with representatives of the State of Wyoming, Park County, Wyoming and the town of Cody to further explore reasonable avalanche and access mitigation safety measures and costs. In order to provide adequate time to amend this Record of Decision reflecting a potential consensus of the parties and to promulgate a new regulation reflecting the amended decision for the 2008-2009 winter use season and beyond, consensus should be reached by June 1, 2008.
- In future years, when Sylvan Pass is not open due to safety, the NPS will maintain the road segment from the East Entrance to a point approximately four miles west of the entrance station to provide for opportunities for cross-country skiing and snowshoeing. Limited snowmobile and snowcoach use will be allowed in order to provide drop-offs for such purposes. In addition, when the pass is not open due to safety the road segment between Fishing Bridge and Lake Butte Overlook will be maintained for oversnow vehicle travel.

#### ***Speed Limits***

The speed limit from the West Entrance to Madison to Old Faithful will remain at 35 mph except where posted at 25 mph in designated segments to protect wildlife and natural soundscapes, and to enhance visitor safety.

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### ***Winter Oversnow Vehicle Season***

- Beginning in 2008-2009, Yellowstone's winter season will begin December 15 and close March 15 each year. Actual opening or closing dates for oversnow travel will be determined by adequate snowpack or snow water equivalency. Early closures of the Grand Loop Road from its junction with Upper Terrace Drive to Madison Junction, and from Norris Junction to Canyon and Fishing Bridge Junction will occur to facilitate spring plowing. To protect road surfaces, the NPS will continue to implement temporary vehicle type restrictions (for example, rubber-tracked vehicles only), as necessary.
- In Yellowstone, the NPS will continue to plow the roads from Gardiner to Mammoth, Mammoth to Tower, and Tower to the Northeast Entrance (Cooke City) throughout the winter. U.S. Highway 191 will continue to be plowed in Yellowstone. Rubber tracked vehicles will not be allowed on these roads.

### ***Facilities***

Warming huts may be available for visitor use at Old Faithful, Norris, Madison, Canyon, Fishing Bridge, Indian Creek, Mammoth Terraces, and other appropriate sites.

### **Actions Specific to Grand Teton and the Parkway**

#### ***Routes Open to Snowmobile Use***

The superintendent may open or close these routes, or portions thereof, for snowmobile travel and may establish separate zones for motorized and non-motorized use on Jackson Lake, after taking into consideration the location of wintering wildlife, adequate snowpack, public safety and other factors. Notice of such opening or closing will be provided by one or more of the methods listed in 36 CFR 1.7(a).

The following routes are designated for snowmobile use:

- The CDST along U.S. 26/287, from the east boundary of GTNP to the vicinity of Moran Junction.
- The CDST along U.S. 89/191/287 from the Moran Junction vicinity to the north boundary of GTNP and from there to Flagg Ranch, through the winter of 2007-2008 only.
- In the developed area of Flagg Ranch.
- U.S. 89/191/287 from Flagg Ranch to the north boundary of the Parkway.
- Grassy Lake Road (Flagg-Ashton Road), from Flagg Ranch to the west boundary of the Parkway.
- The frozen surface of Jackson Lake for purposes of ice fishing by persons possessing a valid Wyoming state fishing license and the proper fishing gear. Jackson Lake will be open generally from the time that the ice reaches sufficient thickness to make the lake safe for snowmobile use. The season will extend until late March or early April, depending on lake conditions, public safety, and resource concerns.

#### ***Routes Open to Snowcoach Use***

The superintendent may open or close these oversnow routes, or portions thereof, or designate new routes for snowcoach travel after taking into consideration the location of wintering wildlife, adequate snowpack, public safety, and other factors. Notice of such opening or closing will be provided by one or more of the methods listed in 36 CFR 1.7(a).

- U.S. Highway 89/191/287, from the Snake River Bridge to the north boundary of the Parkway.

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- In the developed area of Flagg Ranch.

### **Guiding Requirements**

- Snowmobile use on Jackson Lake and the Grassy Lake Road will not require the use of commercial guides; however, requests to provide commercial guiding services will be considered by the NPS. Snowmobiles being operated between Flagg Ranch and the South Entrance of Yellowstone must be accompanied by a guide.
- All snowcoaches operating in the Parkway will have to be operated in accordance with a concessions contract, or other NPS-issued permit.

### **Snowmobile Limits**

Table 3: Grand Teton and the Parkway Daily Snowmobile Entry Limits

<b>Entrance</b>	<b>Snowmobiles</b>
Grassy Lake Road (Flagg-Ashton Road)	25*
CDST	0**
Jackson Lake	40
Total	65

\* As measured by counting snowmobiles originating a westbound trip at Flagg Ranch. For the winter of 2007-2008 only, the daily entry limit will be 50 snowmobiles.

\*\*For the winter of 2007-2008 only, the daily snowmobile limit on the CDST will be 50 snowmobiles.

### **Non-Motorized Access**

- Non-motorized winter use will continue to be managed consistent with prior decisions and rules.
- Snow road edges may continue to have track set for skiing where feasible.
- About 15 miles of the Teton Park Road are currently groomed for cross country skiing in Grand Teton. This road may continue to be machine groomed for skiing.

### **Plowed Roads**

- In GTNP and the Parkway, the following roads will continue to be plowed:
  - Highway 26/89/191, from the south boundary of GTNP to Moran
  - Highway 89/191/287, from Moran to Flagg Ranch
  - Highway 26/287, from Moran to the east boundary of GTNP
  - Teton Park Road, from Moose Junction to Taggart Lake Trailhead
  - Teton Park Road, from Jackson Lake Junction to Signal Mountain Lodge
  - Pacific Creek Road, from Highway 89/191/287 to the GTNP boundary
  - Gros Ventre Road, from Gros Ventre Junction to east boundary, via Kelly and Kelly Warm Springs
  - The road from Kelly to end of pavement, approximately two miles north of Mailbox Corner
  - Teton Science School Road to the east boundary
  - The Moose-Wilson Road, from the Granite Canyon Entrance to the Granite Canyon Trailhead
- Current winter closures will remain in effect on the Snake River floodplain, the Buffalo Fork River floodplain, and the Uhl Hill area, Willow Flats, Kelly Hill, Static Peak, Prospectors Mountain, and Mount Hunt.

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- Motorized access to inholdings and adjacent public and private lands will continue to be available through a combination of plowed roads for wheeled vehicles and staging areas for snowmobiles traveling to immediately adjacent lands.
- Reasonable and direct access to adjacent public and private lands, or to privately owned lands within the park with permitted or historical motorized access, will continue via paved and plowed routes or via oversnow routes from GTNP.
- Snowmobiles that meet the best available technology requirements will be phased in for administrative use, subject to the availability of funding, by 2011-2012. The NPS, and other parties authorized by the NPS, may continue to use non-BAT snowmobiles where necessary for specialized purposes, such as search and rescue, law enforcement, facility repair and maintenance, and other emergency operations.
- Destination and support facilities may continue to be provided at Moose, Triangle X, Colter Bay, and Flagg Ranch, and warming hut facilities may be available along the Teton Park Road to provide visitor services and interpretive opportunities.

### ***Winter Season***

The winter use season will generally coincide with the season established for Yellowstone, from December 15 to March 15 each year. Actual opening or closing dates for oversnow travel will be determined by adequate snowpack, snow water equivalency, or the condition of the frozen surface of Jackson Lake, as applicable.

### ***Grassy Lake Road***

The approximately 6 mile portion of the Grassy Lake (Flagg - Ashton) Road within the Parkway is currently, and historically has been, groomed by the Fremont County, Idaho, Department of Parks and Recreation. The grooming of this route is performed in conjunction with grooming of the snowmobile route through the Caribou-Targhee National Forest. In the event that Fremont County ever chooses not to, or is unable to continue grooming the road, the National Park Service does not intend to undertake that responsibility. Therefore, unless another other entity were available to provide that service, that portion of the Grassy Lake (Flagg – Ashton) Road within the Parkway will no longer be designated as being open to oversnow vehicle use.

### **Actions and Assumptions Common to all Park Units**

None of the actions in this decision preclude closures for safety, resource protection, or other reasons as identified in 36 CFR 1.5 or 2.18.

### ***Definitions***

- In this ROD, the following definitions apply:
  - **Commercial guide:** A guide who operates for a fee or compensation and is authorized to operate in the park(s) under a concession contract or commercial use authorization, or is affiliated with a commercial guiding service or commercial tour.
  - **Commercial tour:** One or more persons traveling on an itinerary that has been packaged, priced, or sold for leisure/recreational purposes by an organization that realizes financial gain through the provision of the service.
  - **Designated “non-motorized recreation” route:** A marked or otherwise indicated oversnow travel route.
  - **Gateway communities:** The towns of Jackson and Cody, Wyoming, and Gardiner, Cooke City, and West Yellowstone, Montana.
  - **Historical snowcoach:** A Bombardier snowcoach manufactured in 1983 or earlier. Any other snowcoach is considered a non-historical snowcoach.

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- **Oversnow vehicles (OSVs):** Self-propelled vehicles intended for travel on snow, driven by a track or tracks in contact with the snow, and which may be steered by skis or tracks in contact with the snow. This term includes both snowmobiles and snowcoaches.
- **Oversnow route:** That groomed portion of the unplowed roadway located between the road shoulders and designated by snow poles or other poles, ropes, fencing, or signs erected to regulate over-snow activity. Oversnow routes include pullouts or parking areas that are groomed or marked similarly to roadways and are adjacent to designated oversnow routes.
- **Snowcoaches:** Self-propelled, mass transit vehicles intended for travel on snow, with a curb weight of over 1,000 pounds (450 kg), driven by a track or tracks, steered by skis or tracks, and which have a capacity of at least eight passengers. A snowcoach has a maximum size of 102 inches wide, plus tracks (not to exceed 110 inches wide with tracks); a maximum length of 35 feet; and a Gross Vehicle Weight Rating (GVWR) not to exceed 25,000 pounds.
- **Snowmobiles:** Self-propelled vehicles intended for travel on snow, with a curb weight of not more than 1,000 pounds (450 kg), driven by a track or tracks in contact with the snow, and which may be steered by a ski or skis in contact with the snow.

### **Mitigating Measures/Monitoring**

A variety of mitigating measures are included in the action items listed for each park, above. These include restricting snowmobile and snowcoach use to designated routes, requiring 100% commercial guiding in Yellowstone, placing a daily numerical limit on the number of snowmobiles and snowcoaches that may enter the parks, speed limits and studying bison use of roads. In addition, the following mitigating measures will be implemented as well as an extensive monitoring and adaptive management program, as described in Appendix A of this decision.

### **Best Available Technology (BAT)**

- If the EPA adopts standards for any class of oversnow vehicle that are more stringent than the requirements resulting from this NEPA process and decision, the EPA standards will replace the NPS standard.
- The NPS recommends the use of environmentally preferred fuels and lubricants for all motorized winter vehicle use for all alternatives. For example, this could include lubricants meeting the EPA “highly biodegradable” classification, and fuels like biodiesel and ethanol blends. Additionally, the NPS encourages the use of fuel-efficient winter vehicles in the parks.
- Revisions to testing procedures may be described and implemented per NPS procedures used to certify a snowmobile or snowcoach as BAT.
- Individual snowcoaches or snowmobiles may be subject to periodic inspections to determine compliance with the emission and sound requirements.

### **Snowmobile BAT**

- All recreational snowmobiles operating in the parks must meet BAT requirements, except:
  - Snowmobiles traveling on the Grassy Lake Road to and from Flagg Ranch will be exempt from BAT requirements, beginning the winter of 2008-2009. In order to be consistent in implementing all aspects of the winter use plans in 2008-2009, and to avoid the confusion that could result by implementing individual elements prior to that time, the NPS is retaining the BAT requirement on the Grassy Lake Road until the winter season of 2008-2009. Eastbound snowmobiles may not travel beyond

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- Flagg Ranch unless they meet BAT requirements and any other applicable requirements.
- Snowmobiles using the Cave Falls Road in Yellowstone will not be required to be BAT.
  - Snowmobiles using routes within Grand Teton established to allow access to inholdings or adjacent public or private lands will be exempt from BAT requirements. This also applies to the portion of the CDST between the east park boundary and Moran Junction.
  - The superintendents will maintain a list of approved snowmobile makes, models, and years of manufacture that meet the BAT requirements and a procedure to certify a snowmobile as BAT. The list will be posted on the park website, and notice will be provided by one or more of the methods listed in 36 CFR 1.7(a).
  - The NPS anticipates that snowmobile manufacturers will conduct research to continually improve sound and emissions in available machines. Information on the full spectrum of pollutant criteria is critical to prevent an inadvertent increase in some pollutants.
  - Once approved, a snowmobile will be certified as BAT for a period of six years. In the absence of new emissions and sound information, after six years a snowmobile make and model will no longer be BAT-certified and its use will not be allowed in the parks. In recognition of the possibility that some privately owned snowmobiles used for ice fishing on Jackson Lake may have relatively low mileage after a period of 6 years, the certification for these snowmobiles may be extended up to a total of 10 years, as long as the mileage of the individual machine does not exceed 6,000 miles.
  - Snowmobiles that have been modified in a manner that may affect air or sound emissions may be prohibited by the superintendent.
  - In addition, all critical snowmobile emission, sound and odometer-related components that were originally installed by the manufacturer must be in place and functioning properly. Such components may only be replaced with the original equipment manufacturer (OEM) component or its equivalent. If OEM parts are not available, aftermarket parts may be used if they do not worsen sound or emission characteristics.
  - The following snowmobile BAT standards apply:
    - Snowmobile BAT Air Emissions Requirements
      - All snowmobiles must achieve a 90% reduction in hydrocarbons and a 70% reduction in carbon monoxide emissions, relative to EPA's baseline emissions assumptions for conventional two-stroke snowmobiles. Specifically, beginning with the 2005 model year, all snowmobiles must be certified under 40 CFR 1051 and 1065 to a Family Emission Limit no greater than 15 g/kW-hr for hydrocarbons and 120 g/kW-hr for carbon monoxide. If the existing procedures or requirements of 40 CFR 1051 and 1065 and the Family Emission Limit are superseded, all snowmobiles must be certified by their manufacturer to meet the above emission requirements.
      - For 2004 model year snowmobiles, measured emissions levels (official emission results with no deterioration factors applied) must comply with the emission limits specified above.
      - Pre-2004 model year snowmobiles may be operated only if they have been shown to have emissions that do not exceed the limits specified above.
      - Snowmobiles must be tested on a five-mode engine dynamometer, consistent with the existing test procedures specified by EPA (40 CFR 1051 and 1065).
    - Snowmobile BAT Sound Requirements
      - Snowmobiles must operate at or below 73dBA as measured at full throttle

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according to Society of Automotive Engineers (SAE) J192 test procedures (revised 1985).

- Snowmobiles may be tested at any barometric pressure equal to or above 23.4 inches Hg uncorrected (as measured at or near the test site).
- The NPS recognizes that the SAE procedures changed in 2003 and are continuing to change; thus the 2003 procedures may be supplanted. The NPS intends to continue to work with industry to update the BAT sound measurement procedures. NPS will consider such new protocols or procedures as they are modified by SAE.

#### **Snowcoach BAT**

- All non-historical snowcoaches must meet NPS air emissions requirements, which are the applicable EPA emission standards for the vehicle at the time it was manufactured.
- By the beginning of the 2011-2012 season, all snowcoaches authorized to operate in the Parks must meet BAT air emission requirements, which will be the functional equivalent of having EPA Tier I emissions control equipment incorporated into the engine and drive train for the vehicle class (size and weight) as a wheeled vehicle. The NPS will encourage, in part through contract and permit, snowcoaches to have EPA Tier II emissions control equipment for the vehicle class.
- In addition, all critical emission and sound-related exhaust components that were originally installed by the manufacturer must be in place and functioning properly. Such components may only be replaced with the original equipment manufacturer (OEM) component or their equivalent. If OEM parts are not available, aftermarket parts may be used if they do not worsen emission and sound characteristics. In general, catalysts that have exceeded their manufacturer-recommended useful life must be replaced unless the operator can demonstrate the catalyst is functioning properly.
- Modifying or disabling a snowcoach's original pollution control equipment is prohibited except for maintenance purposes.
- Beginning in the 2011-2012 season, all snowcoaches must meet a sound emissions requirement of no greater than 73 dBA (testing procedures to be determined). The NPS will encourage, in part through contract and permit, snowcoaches with quieter sound levels.

#### ***Bison and Roads***

- The NPS will implement the research proposal by Robert A. Garrott and P.J. White entitled "Evaluating Key Uncertainties Regarding Road Grooming and Bison Movements" (at <http://www.nps.gov/yell/parkmgmt/winterusetechnicaldocuments.htm>). This proposal specifically addresses the uncertainty recognized in the EIS as to whether grooming of the Madison to Norris road segment (Gibbon Canyon) has led to alterations of bison movements and distribution in Yellowstone, a question identified in the report by Cormack Gates et al., "The Ecology of Bison Movements and Distribution In and Beyond Yellowstone National Park" (2005, posted at above site).
- Garrott and White propose to analyze existing data on GPS-collared bison, track additional GPS-collared bison for 5 years, and deploy cameras along travel routes to gain information on the relationship between road grooming and bison travel, without closing the Gibbon Canyon Road to public motorized oversnow vehicle travel (during this five-year period).
- During the five year period, other roads or routes may be investigated to help describe the relationship between snow depth, grooming, and bison movement. For example, the

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Firehole Canyon Drive may be closed to oversnow travel, forcing bison to travel cross country or along the ungroomed Firehole Canyon Road. Similarly, the Madison to Norris Road may be fenced or gated in the vicinity of the new bridge over the Gibbon River to restrict bison movement on the groomed roadway and force bison to travel cross country (while permitting snowmobile and snowcoach travel). Thus bison movement and snow depth and roads may be tested without closing a main road.

- After five years of such data gathering and analysis, the NPS will consider closing the main road between Madison and Norris in its entirety to observe bison response. It is uncertain until the five-year period of data gathering and analysis has finished whether such closure will yield informative data or conclusions. Such a closure, if determined to be appropriate, would likely be a multi-year closure. The NPS does not intend to perform further NEPA analysis on this closure because the concept of closing the Gibbon Canyon road was specifically analyzed during modeling for the FEIS as an option within alternatives 1 and 7. For those alternatives, the impacts have been analyzed assuming that the road segment between Madison and Norris would be closed to all motorized oversnow travel. The agency will announce the closure using the monitoring program procedures described below.
- Other recommendations of the Gates report will be evaluated as part of Yellowstone's bison management program.

#### ***Administrative Use***

- Non-recreational, administrative use of snowmobiles will be allowed by park personnel or parties duly permitted under the provisions of 36 CFR 1.5 and 1.6. Permitted parties must meet BAT requirements unless specifically authorized otherwise by the park superintendent. Such use will not count against daily recreational entry limits and will not be subject to guiding requirements.
- Administrative use of snowmobiles may be supplemented with administrative snowcoaches. When administrative snowmobiles are necessary, the NPS will generally use BAT snowmobiles. Some non-BAT snowmobiles will be permitted for law enforcement, search and rescue, and other administrative purposes on a limited basis.
- Contractors, researchers, and other partners working in the parks will be encouraged to use snowcoaches and they will be required to use BAT snowmobiles unless non-BAT machines are necessary for a particular project and are approved in advance of use by the NPS. The need for non-BAT machines outside the parks does not constitute a reason to use the non-BAT snowmobile in the park when a BAT snowmobile or snowcoach will suffice.
- NPS employees and their families living in the interior of Yellowstone (and their visitors) may continue to use snowmobiles. Subject to available funding, the NPS will provide BAT snowcoaches and snowmobiles for employee use. Beginning in the 2011-2012 season, all employee-owned snowmobiles operated in the parks must meet BAT requirements, and visitors to these employees must also use BAT snowmobiles or snowcoaches.
- Concessioners and their employees and families living in the interior of Yellowstone (and their visitors) may continue to use snowmobiles. To the extent practicable (through permits and contracts), concessioners, their employees and families will be required to use BAT snowmobiles and encouraged to use snowcoaches. Beginning in the 2011-2012 season, all concession employee-owned snowmobiles operated in the parks must meet BAT requirements, and visitors to these concessioner employees must also use BAT snowmobiles or snowcoaches.



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### ***Hours of Operation***

Motorized travel from 9 p.m. to 7 a.m. will be prohibited except for emergency purposes or when approved by the superintendent for administrative use or by special permit for necessary travel. Yellowstone's East Entrance will open to recreational snowmobile and snowcoach travel no earlier than 8 a.m.

### ***Plowed Roads***

Sand, or an equally environmentally neutral substance, may be used for traction on all plowed winter roads. No salts will be used, and sand will be generally spread only in the shaded, icy, or hilly areas of plowed roads. Before spring opening, sand removal operations will be conducted on all plowed park roads.

### ***Accessibility***

- This decision continues implementation of transition and action plans for accessibility and support the philosophy of universal access in the parks. The NPS will make reasonable efforts to ensure accessibility to buildings, facilities, programs, and services.
- The NPS will develop strategies to ensure that new and renovated facilities, programs, and services (including those provided by concessioners) are designed, constructed, or offered in conformance with applicable policies, rules, regulations, and standards, including but not limited to the Architectural Barriers Act of 1968, the Americans with Disabilities Act of 1990, the Uniform Federal Accessibility Standards of 1984, and the Guidelines for Outdoor Developed Areas of 1999. The NPS will evaluate existing buildings and existing and new programs, activities, and services, including telecommunications and media, to determine current accessibility and usability by disabled winter visitors. Action plans to remove barriers will be developed.

### ***Personal Protective Equipment***

Personal protective equipment is recommended for snowmobilers, including helmet, snowmobile suit and gloves, proper footwear, and hearing protection. Persons traveling by snowcoach should also wear or have access to appropriate personal protective equipment including winter clothing, footwear, and hearing protection. Non-motorized users are also recommended to wear and carry personal protective equipment as appropriate for their winter travel. For all user groups, personal protective equipment should include avalanche rescue gear (shovel, probe, and transceiver) as appropriate.

## **MEASURES TO MINIMIZE ENVIRONMENTAL HARM**

### ***Monitoring of Winter Visitor Use and Park Resources***

In addition to the mitigating measures above, scientific studies and monitoring of winter visitor use and park resources (including air quality, natural soundscapes, wildlife, employee health and safety, water quality, and visitor experience) will continue. Selected areas of the parks, including sections of roads, may be closed to visitor use if studies indicate that human presence or activities have unacceptable effects on wildlife or other park resources that could not otherwise be mitigated. The appropriate level of environmental analysis under NEPA will be completed for all actions as required by the Council on Environmental Quality regulations (40 CFR 1500–1508).

- A one-year notice will be provided before any such closure will be implemented unless immediate closure is deemed necessary to avoid impairment of park resources.

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- A Monitoring and Adaptive Management Program is a key element of this decision (see Appendix A). Generally non-emergency changes in park management implemented under the adaptive management program will be implemented only after at least one or two years of monitoring, followed by a 6- to 12-month notification and waiting period. The superintendents will continue to have the authority under 36 CFR 1.5 to take emergency actions to protect park resources or values.

### Wildlife, Including Federally Protected Species and Species of Special Concern

- At periodic intervals when snow depth warrants, routine plowing operations will include laying back roadside snow banks that could be a barrier to wildlife exiting the road corridor.
- NPS personnel will patrol sensitive resource areas to ensure compliance with area closures.
- The parks will continue to support the objectives of the Greater Yellowstone Bald Eagle Management Plan, and the eagle population will continue to be monitored to identify and protect nests.
- Monitoring of wolves will continue.
- Monitoring of grizzly bear populations will continue in accordance with the Interagency Grizzly Bear Management Guidelines and the parks' bear management plans.
- Wildlife-proof garbage holding facilities for interior locations (including Old Faithful Snowlodge) will be provided as part of regularly-occurring park operations.
- Use of groomed, ungroomed, and plowed surfaces by bison and other ungulates will continue to be monitored.
- Monitoring and protection of trumpeter swan habitats and nests will continue, including the closure of nest sites to public access when warranted.
- Monitoring potential or known winter use conflicts will result in area closures if necessary to protect wildlife and their habitat.
- If monitoring indicates that undesirable impacts are occurring, further measures including avoiding, minimizing, rectifying, reducing, or compensating for those impacts will be identified and taken.

### Cultural Resources

If human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered, applicable provisions of the Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001) will be followed.

### Water Resources

- Best management practices will be used during the construction, reconstruction, or winter plowing of trails and roads to prevent unnecessary vegetation removal, erosion, and sedimentation.
- Water resource monitoring, which has not indicated a problem in recent years, will continue on an as-needed basis. If necessary, best management practices will be implemented.

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### **OTHER ALTERNATIVES CONSIDERED**

Six other alternative winter use management plans were evaluated in the FEIS. Alternative 1 resembled the temporary winter use plan of August 2004, with some modifications. Alternative 2 would prohibit recreational snowmobiling in the parks in favor of snowcoach access. Alternative 3A would close much of Yellowstone to oversnow travel, leaving only the South Entrance to Old Faithful route open. A variation of alternative 3 (3B) is the no action alternative, which would close all routes to motorized oversnow recreation. This would be the result of the expiration of the uses allowed under the temporary plan, should no new decision be made. Three other alternatives (4, 5, and 6) would allow varying levels of snowmobile and snowcoach access to continue in the parks. Alternative 6 calls for plowing some roads in Yellowstone to allow wheeled-vehicle access from West Yellowstone and Mammoth to Old Faithful. All alternatives met the purpose and need for the FEIS. However, alternatives 2 and 3 would offer a more limited range of visitor experiences in the winter as compared to the other alternatives. Alternatives 1, 4, and 5 would offer a greater range of opportunities for visitors while alternative 6 would offer the most varied ways to access the interior of Yellowstone National Park. Use levels and means of access in some alternatives may discourage some winter visitors. This decision would largely implement Alternative 7, as explained on page 4 of this ROD.

### **BASIS FOR DECISION**

Unmanaged, unlimited and unrestricted winter use created impairment of park resources and values historically (including air quality, wildlife, soundscapes, visitor experience, and visitor and employee health and safety), and the solutions to these concerns have been, and remain multi-faceted. That is why this decision includes a daily limit on snowmobile and snowcoach use as well as other reasonable and prudent management tools, such as 100% commercial guiding in Yellowstone, BAT for the vast majority of oversnow vehicles, continued research and monitoring, and adaptive management.

Four winters of experience and monitoring have shown that a program of managed snowmobile and snowcoach access to the Parks works. Many of the historical issues related to past numbers and types of snowmobiles have been successfully addressed. Past issues related to air quality, wildlife concerns, soundscapes, employee and visitor health and safety have been substantially addressed so that impairment and unacceptable impacts are not occurring. Additionally, a program of monitoring and adaptive management will be in place to help the National Park Service understand if the decision is effective and provides a framework for the agency to respond accordingly, with a variety of management tools available (see Appendix A).

The past four years have also shown that certain adjustments to the managed winter access program are necessary; this decision will implement those changes.

#### ***Yellowstone National Park***

The NPS has addressed many of the historical issues through air and sound requirements for oversnow vehicles (Best Available Technology, or BAT), mandatory commercial guiding for snowmobiles (and most snowcoaches), limits on the numbers of snowmobiles allowed into the parks, continued research and monitoring, and through temporal and spatial zoning and/or road closures. This decision will continue most of these requirements while making adjustments in some and extending others.

Best available technology has substantially reduced the air emissions from the typical snowmobile and somewhat reduced noise emissions. Air emissions are 70-90% less than

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those of the historical two-stroke snowmobile and noise levels are 5 decibels less (about a 25% reduction). These reductions have greatly improved Yellowstone's air quality, to the point that some measures of air pollution are close to background level (that is, those pollution levels that would exist without oversnow vehicle traffic). Noise levels have also dropped. The successes in reducing the environmental impacts of snowmobile use that have been brought about by the BAT requirement, along with public support for this management tool, affirm this decision to continue BAT requirements for snowmobiles in Yellowstone. This decision will also implement similar BAT requirements for snowcoaches in the park.

Snowcoaches, especially some older models, are significant contributors to soundscapes concerns. Some older snowcoaches also have been contributing higher levels of air pollutants than their cleaner counterparts. That is why this decision calls for best available technology to be put in place for snowcoaches, with technology requirements that will substantially lower both air and sound emissions. This decision also calls for a reasonable implementation schedule for requiring this BAT requirement to be met, recognizing the relatively large investment that each snowcoach represents.

Commercial guiding under the temporary plan also helped to address many of the concerns regarding the unacceptable impacts and impairment resulting from historical, unregulated snowmobile use. Guides better ensured that only BAT snowmobiles were used, which helped to address noise and air quality issues. Requiring all visitors to travel in groups and enforcing proper visitor behavior also made the parks cleaner and quieter. Safety has been greatly enhanced, with more orderly visitor behavior and fewer intoxicated drivers, less speeding, and fewer underage operators. Oversnow moving violations decreased by 78% from 2002-2003 to 2006-2007 and arrests dropped from 21 to 3 per winter in the same period, due to commercial guiding (after accounting for changing visitation numbers). Because guides know the park rules, the need for closures and signage has been reduced, saving ranger time and reducing visitor frustration. Finally, guides helped reduce the occurrence of adverse wildlife encounters and habituated wildlife problems.

These substantial improvements in visitor experience, employee and visitor health and safety, park operations, and soundscapes, wildlife, and air quality protections are all due, at least in part and in some cases almost entirely, to the 100% commercial guide requirement for snowmobilers. Mandatory commercial guiding has worked, and this decision calls for continuation of this requirement in these new winter use plans. This decision also eliminates the option for private snowcoach travel, effectively implementing the same 100% commercial guide requirement for those traveling by snowcoach.

Limits on the numbers of snowmobiles and snowcoaches allowed into the park have been one element of the largely successful solution to the historical problems associated with unmanaged use of oversnow vehicles in Yellowstone. In order to prevent impairment and unacceptable impacts to park resources and ensure that the experience of visiting Yellowstone in the winter is of high quality, this decision limits the number of snowmobiles to 540 per day, in comparison to the historical average of 795 per day. As a point of comparison, the winter of 2006-2007 saw an average of 290 snowmobiles per day and a single peak day of 542, slightly higher than each of the previous two winters.

Monitoring data also indicates that at the lower levels of use experienced over the past three years, oversnow vehicles could be heard more than expected. During the winter of 2006-2007, oversnow vehicle sounds were audible 59% of the time along the busy West Yellowstone to Madison Road corridor between the hours of 8:00 a.m. and 4:00 p.m. Snowmobiles account for 72% of time audible while snowcoaches account for 22%. The balance is attributable to groomers or unidentifiable vehicles. The 59% time audible exceeded the 50% monitoring threshold that was established to help park managers evaluate

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the effectiveness of winter use management. In addition, the monitoring thresholds for sound level (loudness) were also exceeded more often than expected, but these exceedances were primarily attributable to snowcoaches and road grooming equipment.

Audibility of oversnow vehicles in Yellowstone's backcountry also exceeded the backcountry soundscapes threshold. The Mary Mountain site is in a backcountry area acoustical zone, but oversnow vehicles on the groomed Old Faithful-Madison Junction Road 8000 feet away were audible at least 10% of the time on all 18 days analyzed. The average percent time audible for all days analyzed was 26% (9 of 18 days exceeded 20%). The audibility threshold was 20% in backcountry areas.

Although the numbers of snowmobiles permitted to enter Yellowstone each day under this decision are greater (with the exception of a single day) than those that actually experienced during the previous three winters, the impacts of this use are manageable, and the use of snowmobiles at this level, combined with the other elements of this decision, is an appropriate use of the park. As noted, the majority of times that monitoring thresholds for sound levels were exceeded were attributable to sources other than recreational snowmobiles. Most of these exceedances were attributable to snowcoaches, particularly the older model Bombardiers. The BAT requirement for snowcoaches will help reduce their noise impacts, which contribute disproportionately to both sound level impacts and percent time audible. Other elements of this decision, such as requiring employee-owned and administratively-used (concessioners, contractors, etc.) snowmobiles (which also contribute disproportionately to soundscapes impacts) to meet BAT requirements, will also reduce noise impacts on the park. Soundscape monitoring activities will continue under this decision, and will help to inform adaptive management actions should they be necessary to ensure that impacts on the park remain acceptable. If audibility remains a concern, this decision enables park managers to utilize the adaptive management program to reduce audibility further, such as by adjusting snowmobile or snowcoach numbers or mandating that all groups enter the park at certain times. Although not part of this decision, future development of even quieter snowmobiles could further reduce impacts on the natural soundscapes of the parks. Because of the actions called for in this decision, the NPS expects to be fully within the soundscapes thresholds identified in the monitoring and adaptive management program.

A second key issue is air quality. Although BAT snowmobiles are far cleaner than snowmobiles historically used in the parks, neither they nor snowcoaches are pollution-free. In addition to BAT requirements, air quality concerns are addressed by limiting use. Modeling indicates that while there would be a small increase in emissions if the number of snowmobiles increased from current use levels to 540, no alternative would result in an impairment of park air quality. In fact, under all the alternatives, all measures of air quality for pollutants, particulates and visibility are predicted to meet Federal, Montana and Wyoming ambient air quality standards, at levels well below those standards. The Federal Class I air quality standards would not be violated or even approached. Clearly, reducing the daily snowmobile numbers will better protect park air quality.

However, at higher use levels, some monitoring indicated a potential problem with benzene and formaldehyde exposure for employees. Safe exposure levels for neither contaminant were exceeded, although measured levels have occasionally come close. As with soundscapes, the NPS will continue air quality and health and safety monitoring, which will ensure that if there is a problem with benzene or formaldehyde exposure, the adaptive management program will be used to reduce the exposure to acceptable levels. Also, air quality is affected by weather: inversions can exacerbate pollution levels, even with BAT requirements. These contaminant concerns reinforce the decision to set Yellowstone's daily

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snowmobile limit at 540 and to implement the adaptive management program, which is described in Appendix A of this decision; both will better ensure that air quality and personal exposure desired conditions are met.

A third key issue is wildlife. The wildlife impact analyses in the FEIS indicate that the preferred alternative would result in negligible to moderate adverse effects. The same impact range would occur with other alternatives, such as snowcoaches only (Alternative 2), 720 snowmobiles per day (Alternative 1), or 1,025 snowmobiles per day (Alternative 4). Monitoring shows that winter use did not contribute to wildlife effects at the population level under a wide range of snowmobile numbers (between 324 and 1,400 per day at the West Entrance). Setting the snowmobile limit lower, at 540 per day, ensures that there will continue to be no population level effects, and will also help limit any impacts to individual wildlife. Mandatory commercial guiding also helps reduce any such effects. As with air quality and soundscapes, monitoring of wildlife impacts will continue, and the adaptive management program will be used to mitigate any unacceptable impacts. The NPS does recognize a strong perception or concern, expressed in the public comments, continues to exist that snowmobiles are hurting wildlife, despite scientific evidence to the contrary.

Wildlife monitoring indicated that 80% of the time bison displayed no visible response to human recreationists, 12.5% of the time they displayed a “vigilance response,” (looked at the recreationist, but did not otherwise move), and 7% of the time they actively responded (the animal walked or ran away or charged the human or vehicle). Elk had no visible response 49% of the time, displayed a vigilance response 44% of the time, and displayed an active response 8% of the time.

Specifically as regards bison in Yellowstone, debate continues as to whether groomed roads allow bison to alter their movements and distribution, relative to what would occur in the absence of groomed roads. Recently, this debate has focused on the road from Madison to Norris Junctions; bison experts are unable to discern whether bison would utilize this corridor in the absence of road grooming. Because this uncertainty has contributed to the ongoing nature of Yellowstone’s winter use debate and because the NPS strives to preserve wildlife in its natural state as best as possible, this decision includes the implementation of the research proposal by Robert A. Garrott and P.J. White entitled “Evaluating Key Uncertainties Regarding Road Grooming and Bison Movements” (at <http://www.nps.gov/yell/parkmgmt/winterusetechnicaldocuments.htm>). This proposal specifically addresses the uncertainty recognized in the EIS as to whether grooming of the Madison to Norris road segment (Gibbon Canyon) has led to alterations of bison movements and distribution in Yellowstone, a question identified in the report by Cormack Gates et al., “The Ecology of Bison Movements and Distribution In and Beyond Yellowstone National Park” (2005, posted at above site).

Garrott and White propose to analyze existing data on GPS-collared bison, track additional GPS-collared bison for 5 years, and deploy cameras along travel routes to gain information on the relationship between road grooming and bison travel, without closing the Gibbon Canyon Road to public motorized oversnow vehicle travel (during this five-year period).

During the five year period, other roads or routes may be investigated to help describe the relationship between snow depth, grooming, and bison movement. For example, the Firehole Canyon Drive may be closed to oversnow travel, forcing bison to travel cross country or along the ungroomed Firehole Canyon Road. Similarly, the Madison to Norris Road may be fenced or gated in the vicinity of the new bridge over the Gibbon River to restrict bison movement on the groomed roadway and force bison to travel cross country (while permitting snowmobile and snowcoach travel). Thus bison movement and snow depth and roads may be tested without closing a main road.

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After five years of such data gathering and analysis, the NPS will consider closing the main road between Madison and Norris in its entirety to observe bison response. It is uncertain until the five-year period of data gathering and analysis has finished whether such closure will yield informative data or conclusions. Such a closure, if determined to be appropriate, would likely be a multi-year closure. The NPS does not intend to perform further NEPA analysis on this closure because the concept of closing the Gibbon Canyon road was specifically analyzed during modeling for the FEIS as an option within alternatives 1 and 7. For those alternatives, the impacts have been analyzed assuming that the road segment between Madison and Norris would be closed to all motorized oversnow travel. The agency will announce the closure using the monitoring program procedures described below.

A fourth key issue has been visitor experience. As explained above, mandatory commercial guiding has improved the visitor experience for many, although it has eliminated the freedom of touring Yellowstone on one's own. For most visitors, though, it has restored order and safety to visiting Yellowstone, and has virtually eliminated the wildlife harassment that occurred when visitors were unguided. Additionally, many visitors enjoy the interpretation they receive from their guides. BAT has certainly also improved the visitor experience, substantially reducing noise and air emissions. These changes again affirm the decision to retain 100% commercial guiding and BAT requirements for snowmobiles.

The decision to continue allowing snowmobiles into Yellowstone may adversely affect the visitor experience of those who do not wish to see snowmobiles in the parks. However, not all visitors enjoy the group travel experience provided by snowcoach tours, or the fact that snowcoach travel is slower than snowmobile travel. Providing both snowmobile and snowcoach transportation options gives visitors a choice of modes of travel. This decision affirms that choice.

This decision also calls for continued temporal and spatial zoning. The Firehole Canyon Drive, North Rim Drive and Riverside Drive will continue to be restricted to snowcoaches only in the mornings, but each will be open to both snowcoaches and snowmobiles from Noon to 9:00 p.m. daily. This temporal separation will provide snowcoach users the opportunity to select periods of snowcoach-only travel. Additionally, the road from Canyon Junction to Washburn Hot Springs Overlook and the Fountain Freight Road will continue to be snowcoach-only access.

This decision addresses Sylvan Pass in Yellowstone. For the winter season of 2007-2008 the pass will be managed continuing the combined program outlined in the 2004 Temporary Plan. After the winter of 2007-2008, in order to maximize risk reduction, the pass would be open and managed using full avalanche forecasting (as defined in the Sylvan Pass Operational Risk Management Assessment). When full forecasting indicates the pass is safe, the pass would be open to oversnow travel (both motorized and non-motorized access).

The National Park Service will, in good faith, work cooperatively with the State of Wyoming, Park County, Wyoming and the town of Cody to determine how to provide continued snowmobile and snowcoach motorized oversnow access to Yellowstone National Park through the East Gate via Sylvan Pass in the winter use seasons beyond 2007-2008.

The National Park Service will meet with representatives of the State of Wyoming, Park County, Wyoming and the town of Cody to further explore reasonable avalanche and access mitigation safety measures and costs. In order to provide adequate time to amend this Record of Decision reflecting a potential consensus of the parties and to promulgate a new regulation reflecting the amended decision for the 2008-2009 winter use season and beyond, consensus should be reached by June 1, 2008.

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This approach both addresses the concerns of the communities and the National Park Service. The City of Cody, Wyoming, as well as Park County, Wyoming, and the State of Wyoming have clearly articulated the importance of this route to the community and the historical relationship between Cody and Yellowstone's East Entrance. They have spoken for the businesses near Yellowstone's East Entrance and how those businesses have been hurt in recent years by the changing patterns of winter visitation. They have stated how those businesses will continue to be harmed if the pass is closed to oversnow vehicle travel in the winter. The community and businesses have also stated the value they place on the certainty of the road being open in the winter and the importance of that certainty to their businesses and guests. NPS acknowledges that those values and concerns are real and has carefully weighed those considerations.

Avalanche control at Sylvan Pass has long represented a safety concern to the National Park Service. It is evident in reviewing the original winter use plan EIS, the Supplemental Environmental Impact Statement, and the Temporary Winter Use Plan EA, that the avalanche danger on Sylvan Pass is significant and has been well-known for many years. It is also evident from reviewing those documents and other files related to Sylvan Pass that the historical way of doing avalanche control cannot continue indefinitely. There are approximately 20 avalanche paths that cross the road at Sylvan Pass. They average over 600 feet of vertical drop, and the East Entrance Road crosses the middle of several of the paths, putting travelers at risk of being hit by an avalanche and swept down the slope, almost certainly to their deaths. NPS employees must cross several uncontrolled avalanche paths to reach the howitzer used for discharging those avalanches, which is itself at the base of a cliff prone to both rock-fall and additional avalanche activity (the howitzer cannot be moved without compromising its ability to reach all avalanche zones). Duds (artillery shells that do not explode on impact) occur and exist on the slopes, presenting year-round hazards to both employees and visitors, both in Yellowstone and the Shoshone National Forest. Natural avalanches can and do occur, both before and after howitzer use. Using a helicopter instead of a howitzer also is a high risk activity because of other risks a contractor would have to incur, as identified in the Operational Risk Management Report completed by the NPS in October 2007. Using full forecasting will ensure that visitors and personnel are not exposed to avalanche risk because the pass will be open only when forecasting indicates it is safe.

Some in the community of Cody, Wyoming and elsewhere do not believe there is a safety issue at Sylvan Pass, because there has not been a serious incident at the pass in the 30+ years of avalanche control activity. Yet an employee lost his life traveling to the pass to check on conditions to determine if the pass was safe to open, and several close calls have occurred. Further, safety and safety management in the National Park Service is no longer about past records and good fortune, but rather taking a hard look at what we do, why we do it, and continually asking ourselves, "Are we accomplishing this work in the safest manner possible?" It is unacceptable to knowingly continue a dangerous practice when report after report and analysis after analysis says that an operation has inherent safety risks.

During this FEIS process, the additional, independent work by avalanche expert Bob Comey and the Operational Risk Management Assessment (into which several avalanche experts, including Mr. Comey, had direct input) reinforced that the past ways of doing avalanche control (through howitzer or helicopter) pose an unacceptably high risk to NPS employees. These reports also identified options describing how avalanche mitigation could be conducted in safer ways. NPS has reviewed those options, including the cost information and the additional planning, geotechnical investigations, compliance, design, contracting, construction, and testing that would be required to implement some of these options. A significant one-time investment would apparently be needed, along with additional operating



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monies, in order to implement any of these options. It could take three or four years before a new system could be in place and functional. That is why it is important to resolve the issues regarding avalanche management early in 2008 to provide the summer to begin implementation if necessary.

During the winter of 2007-2008 NPS will use a combination of techniques that have been used in the past (howitzer and helicopter). Local staff may use whichever tool is the safest and most appropriate that winter, with the full understanding that safety of employees and visitors comes first. The NPS will not take unacceptable risks. When the pass is safe, it will be open; when it is not, the pass will remain closed. As with past winters, extended closures of the pass may occur in 2007-2008.

Use levels have always been relatively low on Yellowstone's East Entrance. Even during the highest winter use years in the 1990s, total use for the season rarely exceeded 5,000 people, less than 5% of Yellowstone's total winter visitation. The winter season at the East Entrance averages about 82 days, while the summer season there averages about 180 days, from the first Friday in May until the first Friday in November. Historically, Sylvan Pass has been closed for several days during the winter to allow safe avalanche management to occur. That is, the pass has almost never been open for the entire 82-day season. Most reasonable avalanche mitigation techniques would result in the pass being closed for at least some days in the winter to conduct avalanche mitigation.

Historically the East Entrance has been closed for a total of about 98 days from mid-March to early May (for spring plowing) and from early November to mid-December (to allow for snow accumulation). During the peak summer season in July and August, use on a single busy day exceeds that of the entire winter season.

Visitor access over Sylvan Pass is purely for recreational purposes. The East Entrance Road is not a major highway nor a railroad. Other avalanche mitigation programs in this country are focused on routes with far higher traffic volume and economic value, often including high value interstate commerce. For example, Glacier National Park is addressing avalanche issues on a major trans-continental railroad. In contrast, the NPS believes Sylvan Pass is the only route of its kind where active avalanche mitigation is occurring for a discretionary, recreational activity.

It is the intent of this decision and the subsequent discussions that occur between now and June 1, 2008 to see if there are ways to address the concerns of the community and the NPS outlined above regarding Sylvan Pass.

No matter what the outcome of the discussion with the community, for some uses, the East Entrance will remain open. People will still be able to travel through this entrance to enjoy several miles of cross country skiing or snowshoeing in Yellowstone's East Entrance and the Middle Fork area. The trails in Yellowstone's East Entrance area connect to the 25 km of groomed ski trails on adjacent forest and private lands. The park will work with its neighbors and the local Nordic ski association to help ensure that these opportunities remain whether the pass is open to motorized travel or not.

### ***Grand Teton National Park and the John D. Rockefeller, Jr. Memorial Parkway***

This decision makes modifications to the management of snowmobile use in Grand Teton National Park and the John D. Rockefeller, Jr. Memorial Parkway. A daily entry limit of 25 snowmobiles per day will be established for the Grassy Lake Road, as measured in terms of snowmobiles originating a westbound trip at Flagg Ranch. Snowmobiles using the Grassy Lake Road will not be required to meet BAT requirements. In this manner, the Grassy Lake road will function primarily as an access route to snowmobile areas on the Caribou-Targhee

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National Forest to the west. A number of other roads in Grand Teton serve as access routes to private or public lands; the six miles of Grassy Lake Road within the Parkway will serve much the same purpose. Such a conversion will also help continue the Continental Divide Snowmobile Trail long-distance trail concept by providing a way for snowmobilers with non-BAT machines to continue west into Idaho and Montana.

The Continental Divide Snowmobile Trail (CDST) was created in the mid 1990's as a long-distance touring opportunity, allowing snowmobile travel between Lander, Wyoming and West Yellowstone. While historical use of the CDST within Grand Teton and the Parkway averaged between 25 and 35 snowmobiles per day over about a 60-day season, use of the trail has declined dramatically, averaging only 14 snowmobiles *per season* for the last three winters. While the requirement that snowmobiles using the CDST must meet BAT requirements may partially explain the decline, it is also clear much of the attraction of this portion of the trail historically was to continue into Yellowstone. The guiding and BAT requirements for Yellowstone have contributed to the substantial reduction in use of the CDST since most users would not have been able to continue into Yellowstone. In view of the continued guiding and BAT requirements for Yellowstone contained in this decision, it is highly unlikely that use of the CDST would recover to levels that support its continued operation at a cost of about \$100,000 per season. Therefore, this decision discontinues designation of the CDST as a snowmobile route effective with the winter of 2008-2009.

This decision recognizes that some snowmobilers using the CDST in the Bridger-Teton National Forest east of Grand Teton wish to connect via the Grassy Lake Road to the snowmobiling opportunities in the Caribou-Targhee National Forest, west of the Parkway. These users will have the opportunity to transport their snowmobiles between Moran and Flagg Ranch by trailer, and then continue westbound by snowmobile on the Grassy Lake Road. Since the BAT requirement for the Grassy Lake Road has likely been the primary factor in limiting its use, the removal of this requirement beginning in the winter of 2008-2009 will facilitate access to the recreational opportunities on the national forest lands to the west of the Parkway. The NPS considers this to be a reasonable exception to the BAT requirements that are generally needed to properly manage oversnow vehicle use in the parks. The impacts of this limited exception are minor.

Jackson Lake will remain open for snowmobile use to provide access for ice fishing, subject to BAT requirements and the provision that these users must also possess a Wyoming Fishing license and fishing gear. This mode of access has worked well to address both the historical soundscapes issues as well as provide a reasonable level of access for those who do wish to ice fish. The BAT requirement is an important element of managing snowmobile use on Jackson Lake due to the large expanse of open space across which noise can propagate unimpeded.

The FEIS did not re-evaluate the issue of whether the use of snowplanes should be allowed on Jackson Lake. The reasons and analysis that supported the closure of the lake to snowplanes remain unchanged. The NPS decision to prohibit snowplanes was upheld by the U.S. District Court for the District of Wyoming in June 2007.

### **Management Policies**

This decision fully complies with the *Management Policies 2006*. In particular, some of the sections that were reviewed in making this decision include:

Section 1.4.3, the NPS Obligation to Conserve and Provide for Enjoyment of Park Resources and Values, which states:

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“NPS managers must always seek ways to avoid, or to minimize to the greatest extent practicable, adverse impacts on park resources and values. However, the laws do give the Service the management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, so long as the impact does not constitute impairment of the affected resources and values.”

This decision will reduce impacts, especially to soundscapes. The decision will also keep impacts upon air quality, wildlife, visitor access and experience, and employee and visitor health and safety, to acceptable levels, by utilizing 100% guiding in Yellowstone, BAT requirements for both snowmobiles and snowcoaches, and strict daily limits on both snowmobiles and snowcoaches, and by addressing Sylvan Pass and the CDST. Although some impacts will continue to occur, they will not result in impairment.

### Section 4.7.1, Air Quality:

“The Service will seek to perpetuate the best possible air quality in parks to (1) preserve natural resources and systems; (2) preserve cultural resources; and (3) sustain visitor enjoyment, human health, and scenic vistas.”

This decision will assure that clean air is preserved in the parks and will ensure that levels of formaldehyde and benzene remain low enough to protect human health. At present, with oversnow vehicle use levels similar to what would likely be experienced under this decision (including the air quality on the busiest days, with oversnow vehicle numbers at or near the maximum that will be allowed under this decision), air quality in the parks is in full compliance with the requirements of the Clean Air Act and NPS Management Policies. Both carbon monoxide and particulate levels were well below national standards; carbon monoxide levels were a tenth of the national standard and particulate levels were less than one-fourth of the standard, as documented in the FEIS. No visibility impairment currently occurs in the parks due to oversnow vehicles.

### Section 4.9, Soundscapes:

“The National Park Service will preserve, to the greatest extent possible, the natural soundscapes of parks. . . . The Service will restore to the natural condition wherever possible those park soundscapes that have become degraded by unnatural sounds (noise). . . .”

The decision will preserve natural soundscapes and will, in combination with the implementation of a snowcoach BAT requirement and adaptive management procedures to take further actions if impacts continue, make consistent progress toward protecting the parks’ winter soundscape. Additionally, requiring park employees, contractors, and permittees to use BAT snowmobiles will help reduce oversnow vehicle audibility.

### Section 8.2, Visitor Use:

“The Service is committed to providing appropriate, high quality opportunities for visitors to enjoy the parks, and the Service will maintain within the parks an atmosphere that is open, inviting, and accessible to every segment of American society. . . .”

To provide for enjoyment of the parks, the National Park Service will encourage visitor activities that:

- are appropriate to the purpose for which the park was established; and
- are inspirational, educational, or healthful, and otherwise appropriate to the park environment; and
- will foster an understanding of and appreciation for park resources and values, or will

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- promote enjoyment through a direct association with, interaction with, or relation to park resources; and
- can be sustained without causing unacceptable impacts to park resources or values.”

The decision to allow a limited number of snowmobiles and snowcoaches will provide a variety of ways to enjoy the parks. The requirement for guided experiences will promote educational, inspirational experiences that promote an understanding of, and appreciation for, park resources and values, because guides are trained in Yellowstone’s natural and cultural history and convey that knowledge to their clients. Through their familiarity with park resources and where wildlife tends to be found, guides also promote direct associations and appropriate interactions with park resources. Guiding greatly reduces wildlife harassment, eliminating unacceptable wildlife impacts of the past. Guiding also helps enforce BAT requirements, clusters visitors together (thereby helping protect park soundscapes), and enforces park regulations better—all of which maintain an inviting and accessible park while preventing unacceptable wildlife impacts.

### Section 8.2.3.2, Snowmobiles:

“Snowmobile use is a form of off -road vehicle use governed by Executive Order 11644 (Use of Off -road Vehicles on Public Lands, as amended by Executive Order 11989)... Outside Alaska, routes and areas may be designated for snowmobile and oversnow vehicle use only by special regulation after it has first been determined through park planning to be an appropriate use that will meet the requirements of 36 CFR 2.18 and not otherwise result in unacceptable impacts. Such designations can occur only on routes and water surfaces that are used by motor vehicles or motorboats during other seasons.”

The decision to allow a limited number of snowmobiles and snowcoaches per day, when combined with other reasonable restrictions (BAT, 100% commercial guiding, nighttime use limits, and reduced speed limits) will not create unacceptable impacts to the parks’ resources or values as supported by the analysis in the FEIS. Further, consistent with 36 CFR 2.18, all oversnow vehicle use would occur on snow-covered roads or, in the case of Jackson Lake in Grand Teton National Park, on the frozen surface of a lake that is used by motorboats in the summer.

## FINDINGS ON IMPAIRMENT OF PARK RESOURCES AND VALUES

### *Policy*

The fundamental purpose of the NPS, established by the Organic Act and reaffirmed by the General Authorities Act (as amended), begins with a mandate to conserve park resources and values. Congress has given the NPS the management discretion to allow impacts within parks, although that discretion is limited by the statutory requirement (generally enforceable by the federal courts) that the Park Service must leave park resources and values unimpaired unless a particular law directly and specifically provides otherwise. This, the cornerstone of the NPS Organic Act, establishes the primary responsibility of the National Park Service. It ensures that park resources and values will continue to exist in a condition that will allow the American people to have present and future opportunities for enjoyment of them.

The impairment that is prohibited by the Organic Act and the NPS General Authorities Act, as amended, is an impact that in the professional judgment of the responsible NPS manager would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values. Whether an impact meets this definition depends on the particular resources and values that would be

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affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question, and other impacts.

An impact to any park resource or value may, but does not necessarily, constitute impairment. An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, or
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or
- identified in the park's general management plan or other relevant NPS planning documents as being of significance.

An impact would be less likely to constitute impairment if it is an unavoidable result of an action necessary to preserve or restore the integrity of park resources or values and it can not be further mitigated. An impact that may, but would not necessarily, lead to impairment may result from visitor activities; NPS administrative activities; or activities undertaken by concessioners, contractors, and others operating in the park. Impairment may also result from sources or activities outside the park.

An analysis of impacts and determinations with respect to impairment were included within the FEIS. Impairment analysis and determinations are not required for visitor use and experience (unless the impact is resource-based), park operations, or socioeconomic environment (including economics, employment, housing, and land use). Adverse impacts determined to have minor or below (that is, no impact or negligible) intensities are not analyzed further (relative to the impairment standard) because of their relatively low magnitude.

### ***Unacceptable Impacts***

The impact threshold at which impairment occurs is not always readily apparent. Therefore, the NPS will also avoid impacts that it determines to be "unacceptable" (NPS Management Policies 2006). These are impacts that fall short of impairment but are still not acceptable within a particular park's environment. Virtually every form of human activity that takes place within a park has some degree of effect on park resources or values; however, that does not mean the impact is unacceptable or that a particular use must be disallowed. The direction to park managers that they should strive to insure that unacceptable impacts do not harm park resources rests with the NPS Management Policies (1.4.7.1), 36 CFR 1.5, Closures and Public Use Limits and Interim Guidance on Appropriate Use and Unacceptable Impacts, *Management Policies 2006* as presented in a memorandum from NPS Regional Director Mike Snyder to Intermountain Region Superintendents, September 20, 2007.

Unacceptable impacts are impacts that, individually or cumulatively, would:

- Be inconsistent with a park's purposes or values.
- Impede the attainment of a park's desired future conditions for natural and cultural resources as identified through the Park's planning process.
- Create an unsafe or unhealthy environment for visitors or employees.
- Diminish opportunities for current or future generations to enjoy, learn about, or be inspired by park resources or values.
- Unreasonably interfere with park programs or activities; an appropriate use of the Park; the atmosphere of peace and tranquility; or the natural soundscape maintained in wilderness and natural, historical, or commemorative locations within the Park.

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In its role as steward of park resources, the NPS must ensure that acceptable park uses would not cause impairment of, or unacceptable impacts on, park resources and values. When proposed park uses and the protection of park resources and values come into conflict, the protection of resources and values must be predominant. A new form of park use would be allowed within a park only after a determination has been made in the professional judgment of the park manager that it will not result in unacceptable impacts. The NPS will always consider allowing activities that are appropriate to the park, although conditions could preclude certain activities or require that limitations be placed on them.

### ***Previous Winter Use Decisions***

A previous winter use planning effort concluded (in a Record of Decision dated November 22, 2000) that of the seven alternatives evaluated in the 2000 FEIS, the only alternative that did not exceed a level of impairment of park resources and values was the one that phased out the use of snowmobiles (Alternative G). This was the primary basis for selecting that alternative, as explained in the 2000 ROD. In all other 2000 FEIS alternatives, snowmobile use in Yellowstone was found to impair air quality, wildlife, the natural soundscape, and opportunities for enjoyment of the park by visitors. In Grand Teton, impairment was found to result from snowmobile and snowplane use on the natural soundscape and opportunities for enjoyment of the park. In the Parkway, impairment was found to result from snowmobile use on air quality, the natural soundscape, and opportunities for enjoyment of the park. There is no new evidence contradicting the finding that historically unlimited snowmobile and snowplane use impaired park resources and values.

The 2000 FEIS and ROD, based on the information available at the time, found impairment for all alternatives with snowmobile use, including those that would have required phased-in use of cleaner and quieter snowmobiles in accordance with objectives set for sound and air emissions. It was determined that there was no way to mitigate the impairment short of reducing the amount of use as determined by an effective carrying capacity analysis, or by imposing a limit unsupported by such an analysis (2000 ROD, pages 18-19).

The rule implementing the 2000 ROD, published in the Federal Register on January 22, 2001, recognized that “achieving compliance with the applicable legal requirements while still allowing snowmobile use would require very strict limits on the numbers of both snowmobiles and snowcoaches” (66 Fed. Reg. 7260, 7262). The 2000 ROD and the 2001 Rule thus recognized that if snowmobile and snowcoach were managed with strict limits, they could be accommodated in the Parks without constituting impairment to park resources and values. At that time, the NPS had not studied the feasibility or potential impacts of such strictly limited use in its NEPA and planning processes.

Following a settlement agreement resulting from a lawsuit over the 2000 FEIS and ROD, the NPS prepared a Supplemental Environmental Impact Statement and Record of Decision (2003 SEIS and ROD). The SEIS and the March 25, 2003 ROD reinforced these earlier conclusions, but also studied new alternatives. The SEIS found that alternatives with strict limitations on snowmobile numbers, combined with other restrictions (technology and guiding) and intensive monitoring and adaptive management would not constitute impairment. The Temporary EA and Finding of No Significant Impact (2004) came to similar conclusions as the 2000 FEIS and SEIS regarding impairment resulting from historical conditions.

The analysis for the 2007 FEIS and this decision supports the previous documents’ conclusions. New modeling for this FEIS also looked at historical (circa 1999) conditions when unlimited and virtually unregulated two-stroke snowmobile use was allowed. At that time, snowmobiles were the dominant mode of access to the parks. In Yellowstone, an

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average of 795 snowmobiles and 15 snowcoaches entered the park each day. Modeling and analysis were conducted to help decision makers understand and compare the alternatives with historical conditions. For example, the air quality analysis indicates that historical snowmobile use generated 3,045 tons of carbon monoxide per winter, almost 12 times the quantity that is generated by any of the alternatives considered in the 2007 FEIS. In addition, the air quality analysis took into consideration EPA regulations regarding snowmobile emissions and looked forward to the year 2010 to help the decision maker understand how those regulations might affect air quality under historical conditions. This additional analysis was conducted with the recognition that technological changes are underway with snowmobiles and a strict return to historical conditions could not occur. After taking into consideration implementation of the EPA regulations, the air quality analysis of “historical conditions circa 2010” indicated that 1,124 tons per year of carbon monoxide would be produced (over four times more than the most polluting alternative considered in the 2007 FEIS).

For wildlife, historical conditions created considerable negative interactions between visitors and wildlife, conditions that were found to constitute impairment of park resources in the 2000 ROD. Much of the conflict occurred when wildlife were on or near the groomed roadways and groups of snowmobilers attempted to pass them. Especially with bison, this resulted in situations where animals were trapped between groups of snowmobiles traveling in opposite directions, occasional stampeding bison, and excess energy expenditure by bison to avoid snowmobiles. This situation has markedly changed in the last three years, largely due to the implementation of mandatory guiding. Guides are trained in how to pass wildlife on the groomed roadways with as little stress to the animal as possible. Field rangers in Yellowstone have noticed a pronounced drop in adverse interactions between visitors and wildlife that are on the roadways.

For visitor experience, historical conditions created unpleasant touring situations for visitors. Many complained about the noise of snowmobiles, with many others complaining about air pollution and inappropriate encounters with wildlife. Conditions under the Temporary Plan were markedly different. Complaints from visitors about unpleasant touring situations virtually ceased. While some visitors do not like mandatory guiding, others enjoyed learning from their guides and touring the park with them. Opportunities to enjoy scenery and wildlife are as good as or better than before, in part because guides are familiar with common wildlife locations. Opportunities to enjoy quiet and solitude have improved, as four-stroke snowmobiles are quieter than two-strokes and all snowmobilers travel with guides, leaving long windows of time free of any OSV noise. Traveling with guides dramatically improved the safety of touring, as guides enforce proper touring behavior such as driving within speed limits. BAT snowmobiles also produce fewer hazardous emissions, greatly reducing the exposure to such pollutants.

For soundscapes, new analysis indicates that historical conditions created unacceptable percent time audibility in the parks. Historically, developed areas and travel corridors typically had OSV sounds audible at or near 100% of the time. Transition zones and some backcountry areas experienced more than double the percent time audible under current conditions. As noted under visitor experience, it was difficult to escape the sound of OSV travel.

This decision will not impair park resources or values or create unacceptable impacts. The actions described in this decision do not severely affect a resource or value whose conservation is 1) necessary to fulfill specific legislative purposes; 2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or 3) identified as a goal in the parks' general management plan or other relevant NPS planning documents.

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Similarly, the actions in this decision also will not 1) be inconsistent with a park's purposes or values; 2) impede the attainment of a park's desired future conditions for natural and cultural resources as identified through the parks' planning processes; 3) create an unsafe or unhealthy environment for visitors or employees; 4) diminish opportunities for current or future generations to enjoy, learn about, or be inspired by park resources or values; or 5) unreasonably interfere with park programs or activities; an appropriate use of the parks; the atmosphere of peace and tranquility; or the natural soundscape maintained in wilderness and natural, historical, or commemorative locations within the parks.

### **Resource Impacts**

Although adverse impacts could occur under this decision to wildlife, air quality, soundscapes, and visitor experience, impacts are at acceptable levels and may be mitigated through management actions.

#### Wildlife

##### Elk and Bison:

The qualitative assumptions, grounded in the available literature on bison and elk, made in this analysis are that increases in winter traffic levels and associated human recreational activity cause increases in vehicle-caused mortality, wildlife displacement, behavior- or physiology-related energy costs, and the potential for adverse demographic impacts. However, the mitigations (limited number of visitors, continued wildlife monitoring) discussed above, and adaptive management, will limit impacts to acceptable levels. Guided oversnow vehicle users will be less likely to interact improperly with wildlife, causing less mortality, less displacement, and fewer negative behavioral and physiological responses. According to the best available information, impacts under this decision are predicted to be negligible to moderate, adverse, short-term, and direct. The impacts associated with the decision will not be of sufficient magnitude to constitute unacceptable impacts or impairment of elk and bison populations.

##### Wolves:

The qualitative assumptions, grounded in the available literature on wolves, made in this analysis are that increases in winter traffic levels and associated human recreational activity cause increases in vehicle-caused mortality, wildlife displacement, and behavior- or physiology-related energy costs; wolf populations will not be affected. However, the mitigations (limited number of visitors, continued wildlife monitoring, use of commercial guides for park visitors, and seasonal wolf den closures) discussed above, and adaptive management, will limit any wildlife impacts to acceptable levels. According to the best available information, impacts under this decision are predicted to be negligible to moderate, adverse, short-term, and direct. The impacts associated with the decision will not be of sufficient magnitude to constitute unacceptable impacts or impairment of wolf populations.

##### Lynx and Wolverine:

The qualitative assumptions, grounded in the available literature on lynx and wolverines, made in this analysis are that increases in winter traffic levels and associated human recreational activity cause increases in vehicle-caused mortality, wildlife displacement, behavior- or physiology-related energy costs, and the potential for adverse demographic impacts. Sylvan Pass is the area most likely to yield motorized activity and human interactions (and associated impacts) with wolverines or lynx, but the overall risk to wolverines and lynx is believed to be generally very low when the pass is open. Additionally, the mitigations (limited number of visitors, completion of existing research, continued



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wildlife monitoring, use of guides for most visitors, and potential closures around their dens) discussed above and adaptive management will limit any impacts to acceptable levels. According to the best available information, impacts on lynx and wolverines from the decision are predicted to be negligible, adverse, short-term, and direct. The impacts associated with the decision are not predicted to be of sufficient magnitude to constitute unacceptable impacts or impairment of lynx or wolverine populations.

Coyotes and Ravens:

According to the best available information, impacts on coyotes and ravens from the decision are predicted to be negligible, adverse, short-term, and direct. In terms of cumulative effects, the negligible, adverse, short-term impacts resulting from direct and indirect actions described in the decision will contribute no impact to past, present, and foreseeable actions on coyotes or ravens. The impacts associated with the decision are not predicted to be of sufficient magnitude to constitute unacceptable impacts or impairment of coyote or raven populations.

Eagles and Swans:

The qualitative assumptions, grounded in the available literature on eagles and swans, made in this analysis are that increases in winter traffic levels and associated human recreational activity cause increases in vehicle-caused mortality, wildlife displacement, behavior- or physiology-related energy costs, and the potential for adverse demographic impacts. However, the mitigations (limited number of visitors, continued research and monitoring efforts, use of guides for most visitors, and potential closures around their nests) discussed above, and adaptive management, will limit any impacts to acceptable levels. According to the best available information, impacts on eagles and swans from the decision are predicted to be negligible to moderate, adverse, short-term, and direct. The impacts associated with the decision are not predicted to be of sufficient magnitude to constitute unacceptable impacts or impairment of eagle or swan populations.

Air Quality

Emissions at the maximum use levels permitted in this decision will be a moderate, adverse, long-term (but occurring only in winter), direct, park-wide impact, more adverse compared to current use levels, and greatly beneficial compared to historical conditions. For carbon monoxide, the decision will result in 134 tons per year as compared to 114 under current conditions (as defined in the FEIS), and 3,045 under historical conditions. Hydrocarbon emissions will be 12 tons per year under the decision, 8 tons under current conditions, and 905 tons under historical conditions. No perceptible visibility impacts will be likely. If the Madison-Norris road is closed for bison-road research or if the East Entrance remains open, impacts will be the same (moderate, adverse, long-term, direct, and park-wide). Impairment of park resources will not occur; the level of air pollution under the decision will not harm the integrity of park resources and values and not constitute unacceptable impacts or impairment.

Natural Soundscapes

As modeled for Yellowstone, in about 13.8% of the park over the average day, oversnow vehicles will be audible at some level. From the overall park perspective, this will constitute a moderate, adverse, short-term, and direct impact. In Grand Teton, in about 17.7% of the park over the average day, oversnow vehicles will be audible at some level according to the modeling. From the overall park perspective, this will constitute a moderate, adverse, short-term, and direct impact. Impacts due to percent time audible will be major in Yellowstone to moderate in Grand Teton and the Parkway, adverse, and short-term impacts. Impacts due to

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maximum sound levels will be minor, adverse, and short-term in the parks. This decision will be beneficial in Yellowstone and adverse in Grand Teton compared to current use and beneficial in both parks compared to the historical condition. Under current conditions, analysis indicates oversnow vehicles would be audible in about 14.4% of Yellowstone and 11.0% of Grand Teton. Under historical conditions, oversnow vehicles would be audible in 16.8% of Yellowstone and 23.3% in Grand Teton. While the comparison to current conditions in Yellowstone may seem counterintuitive, the comparison is accurate because the implementation of snowcoach sound requirements substantially reduces overall oversnow vehicle audibility. Potential closure of the Madison to Norris road segment also removes oversnow vehicle operations that will otherwise contribute to sound impacts. Impairment of park resources will not occur; the level of oversnow vehicle sound under the decision will not harm the integrity of park resources and values.

### Visitor Experience

Under this decision, visitors will continue to be able to view and experience the Parks in a natural setting, enjoying high quality access to information through guides and snowcoach drivers and visitor centers. Opportunities to view wildlife and scenery will abound and access to quiet, solitude, and clean air will be abundant, mainly due to the reduced snowmobile numbers. No unacceptable impacts will occur to the visitor experience.

### **Summary of Findings**

In addition, to ensure that impairment does not occur, the NPS will continue intensive monitoring of park resources and values, including air quality, natural soundscapes, wildlife, employee health and safety, and visitor experience. This will provide the NPS with the ongoing information necessary to assess the impacts of the decision to park resources and values and to make adjustments, as appropriate, in winter use management. Appendix A contains a discussion and table on the monitoring and adaptive management framework. The thresholds within the adaptive management framework are a tool for managers to help them determine if the goals and objectives of the winter use plans are being achieved. They will continue to be employed and evaluated throughout the duration of the regulation ensuing from this decision. Through adaptive management, if monitoring of use levels of snowmobiles and snowcoaches allowed under this Record of Decision indicates acceptable conditions, the NPS will increase use levels to the extent acceptable conditions can be maintained. Conversely, if monitoring of use levels of snowmobiles and snowcoaches allowed under this Record of Decision indicates unacceptable conditions, the NPS will reduce use levels to the extent acceptable conditions can be maintained. The superintendents of the parks may take emergency actions to protect park resources and values if necessary.

In summary, the analysis in the FEIS supports the conclusion that this decision does not constitute impairment. Significant mitigation is part of the decision, and the monitoring and adaptive management program will assure that impairment does not occur.

### **ENVIRONMENTALLY PREFERRED ALTERNATIVE**

The environmentally preferred alternative is that alternative which promotes the national environmental policy as expressed by §101 of the National Environmental Policy Act. That section states that it is the responsibility of the federal government to improve and coordinate federal plans, functions, programs, and resources “to the end that the Nation may:

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- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- Ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
- Attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;
- Preserve important historical, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice;
- Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and
- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.”

Previous winter use planning documents did not include alternatives for completely closing the parks to OSV use; that option was never fully considered (although alternative F in the 2000 FEIS did consider closure of the west side roads to OSV use, similar to alternative 3A in the 2007 FEIS). Designation of the snowcoach-only alternative as environmentally preferred in previous documents, given the range of alternatives considered, effectively optimized resource protection and human use. The snowcoach-only alternative impacted park resources and values the least overall while accommodating human recreational access at then-current levels.

In the 2007 FEIS, the range of alternatives is different from previous planning documents. The no action alternative, as a consequence of continued management without a new decision, would eliminate the impact-inducing activities associated with motorized over-snow recreation. The clear benefit to the natural environment, relative to all other alternatives as described below, provides the rationale for choosing alternative 3B as environmentally preferred.

Though visitor use by OSVs during the winter in Yellowstone and Grand Teton has been established over time, and local economies have come to depend on it, other snow-dominated park units do not allow large winter motorized recreation programs. For example, significant portions of Isle Royale, Glacier, Yosemite, Mount Rainier, Lassen Volcanic, and Sequoia-Kings Canyon national parks have limited winter vehicle use. Management has chosen to close major portions of these parks in the winter as the most protective measure for these parks to maintain, uninterrupted, natural physical and ecological processes and because of the cost and challenges of keeping roads open.

Given this background and these selection criteria, alternative 3B is the environmentally preferred alternative in the 2007 FEIS. Alternative 3B best preserves the unique historical, cultural, and natural resources in the parks. This alternative yields the least impacts to air quality, wildlife, and natural soundscapes because oversnow recreational vehicle travel would not occur in the parks. This alternative is not as effective in sharing life's amenities as the other alternatives because of the lack of oversnow vehicle access, but the level of resource protection achieved exceeds all other alternatives.

Alternative 1 increases the adverse impacts to air quality, natural soundscapes, and wildlife as compared to 3B, but it also allows for a large number of visitors to enjoy the parks in the winter via several modes of transportation. Thus, alternative 1 achieves a balance of resources use and sharing life's amenities; however, it does not achieve the level of protection that alternative 3B would be able to reach.

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Alternative 2 also increases the adverse impacts to air quality, natural soundscapes, and wildlife as compared to 3B (but less than the impacts of alternative 1), and allows visitors to enjoy the oversnow areas of the park with access via one mode of transportation, snowcoaches. Thus, alternative 2 also achieves a balance of resources use and sharing life's amenities, but less so than alternative 1 because choices of access modes and numbers of visitors are more limited. Additionally, as described in FEIS Chapters III and IV, snowcoaches do create impacts on wildlife, soundscapes, and air quality, and utilize more fuel than other modes of transportation. Alternative 2 also does not achieve the level of protection of alternative 3B.

Alternative 3A increases the adverse impacts to air quality, natural soundscapes, and wildlife as compared to alternative 3B, and visitors would be allowed to enjoy oversnow vehicle access to small portions of the parks. Thus, alternative 3A achieves a balance of resource use and sharing life's amenities, but less so than alternative 1 because access to the parks is much more limited. Also, alternative 3A does not achieve the level of protection of alternative 3B.

Alternative 4 has the most adverse effects to the parks' resources, but it also allows for the most use of the parks. Thus, alternative 4 achieves a balance of resources use and sharing life's amenities; however, it does not achieve the level of protection afforded by the other alternatives.

Alternative 5 increases impacts to air quality, natural soundscapes, and wildlife as compared to 3B, and visitors would be able to enjoy oversnow vehicle access in the parks. Thus, alternative 5 achieves a balance of resources use and sharing life's amenities, but less so than alternative 1 because of the more limited number of entries that are allowed. Also, alternative 5 does not achieve the level of protection of alternative 3B, primarily because of the unguided component.

Alternative 6 increases impacts to air quality, natural soundscapes, and wildlife as compared to alternative 3B, and visitors would be able to utilize the most varied modes of travel to enjoy the park. Thus, alternative 6 achieves a balance of resources use and sharing life's amenities, but does not afford the same level of protection as alternative 3B.

Alternative 7 increases impacts to air quality, natural soundscapes, and wildlife as compared to 3B, and an ample number of visitors would be able to enjoy oversnow vehicle access in the parks. Thus, alternative 7 achieves a balance of resources use and sharing life's amenities, but less so than alternative 1 because of the more limited number of entries that are allowed. Although alternative 7 does not achieve the level of protection of alternative 3B, it is likely to achieve greater protection than alternative 5 because all use is commercially guided.

## **PUBLIC AND AGENCY INVOLVEMENT**

### ***Scoping***

The public scoping period for this EIS was June 24 – September 1, 2005. The NPS received 33,365 documents commenting on the scope of the EIS. Of these, about 90% were form letters of various kinds, and about 1% contained unique or substantive comments rather than, or in addition to, opinion statements. Comments were received from persons in all U.S. states and territories, as well as from persons and organizations in other countries.

Although this public scoping period was primarily intended to garner comments about the scope of this EIS, many people simply expressed their opinions regarding winter use management in the parks. A detailed report of the public scoping comments is available for public review on the NPS winter use website:

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<http://www.nps.gov/yell/parkmgmt/planyourvisit/winteruse.htm>

### ***Public Meetings and Outreach***

Recognizing that the winter use issue continues to generate intense interest, the NPS explored a variety of public involvement process options. The NPS utilized the Rocky Mountain Cooperative Ecosystems Study Unit (RM-CESU) to implement an agreement between the NPS, Montana State University Department of Political Science, and Cadence, Inc. Cadence provided meeting facilitation with cooperating agencies and other stakeholders and provided continual advice on the public involvement elements of the EIS and rulemaking processes.

Through this agreement, the NPS has:

- Developed and implemented a Public and Agency Participation Plan with a commitment to open information sharing. This Plan is posted on the winter use website shown above.
- Employed a variety of outreach methods to keep cooperating agencies and other interested parties informed. These methods attempt to meaningfully involve the public through: roving team meetings, selected larger meetings, newsletters, and web site postings (Yellowstone site and NPS Planning, Environment, and Public Comment (PEPC) system).
- Finalized a Memorandum of Understanding with each Cooperating Agency. The States of Wyoming, Montana, and Idaho; the counties of Park and Teton in Wyoming, Park and Gallatin in Montana, and Fremont in Idaho along with the USFS and EPA were cooperating agencies, as they were in the previous EIS and SEIS processes.
- Held more than 50 meetings with cooperating agencies and other stakeholders since finalizing the Public and Agency Participation Plan. These 'Roving Team' meetings have been a valuable tool for sharing information and receiving input to the planning process. Early meetings were held to discuss the history and background of winter use planning and the need for a new planning effort; beginning in November 2005 the range of modeling scenarios were introduced. In April 2006, draft alternatives were presented. In late November 2006, the NPS posted the cooperating agency review draft on its website. While the primary purpose of this posting was to make the review draft available to cooperating agencies for their review, any member of the public was able to download the draft as well. Although the formal public comment period was not open until spring 2007, the NPS accepted any comments that either the cooperating agencies or members of the public provided before that period.
- Held three different information fairs during the process and four public hearings on the DEIS. At the information fairs both Yellowstone personnel and various resource experts were available to answer questions, the NPS provided overviews of the status of winter use planning, and NPS personnel accepted verbal comments. At the hearings, NPS personnel accepted verbal comments through a formal public comment period while others were available to answer questions.
- Submitted draft reports of monitoring and scientific work (soundscapes, air quality, wildlife, avalanche, etc.) for review by cooperating agencies and stakeholders with relevant expertise.
- Submitted draft modeling and study plans, as well as draft modeling reports, for technical review by cooperating agencies and stakeholders with relevant expertise:
  - Soundscapes Modeling Plan and Draft Report
  - Air Quality Modeling Plan and Draft Report
  - Wildlife Study Plan
  - Economic Analysis Memorandum and Draft Modeling Report

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- Research proposal evaluating key uncertainties regarding road grooming and bison movements
- Consulted with the U.S. Fish and Wildlife Service under Section 7 of the Endangered Species Act, and the U.S.F.W.S. concurred that the FEIS preferred alternative may affect, but will not likely adversely affect either the lynx or the grey wolf (letter dated October 23, 2007). The consultation assumed that Sylvan Pass would be open in the winter of 2007-2008 and closed to motorized travel in subsequent winters. Additional consultation with the U.S. Fish and Wildlife Service will occur, if necessary, prior to the winter of 2008-2009 regarding Sylvan Pass.
- Consultation and public and agency review of the DEIS did not identify any impacts on archeological or historical resources, ethnographic resources, cultural landscapes, sacred sites or Indian Trust resources from the range of alternatives considered. Scoping for this EIS did not identify any new issues relative to these resources. As part of government-to-government relationships, consultation with affiliated tribes has and will occur on on-going winter use and other planning and management topics.

**Public Comment on the DEIS**

The Draft EIS was on public review from March 27 – June 5, 2007. The NPS received approximately 120,000 documents commenting on the DEIS. A summary of comments and responses is found in Appendix I of the FEIS. Four public meetings were held during the DEIS comment period: Cody, Wyoming; West Yellowstone, Montana; St. Paul, Minnesota; and Lakewood, Colorado. A detailed report is available at the above web site.

Table 4: Summary of Public Comment on the DEIS

Issues	Users	Conservation Interests	State of Wyoming and Park County, Wyoming
Air Quality	Generally support BAT to reduce pollution	Believe snowcoaches only best reduces pollution	Generally disagree there is a concern
Wildlife	Generally support guiding	Believe snowcoaches only best addresses wildlife concerns	Generally disagree there is a concern
Guiding	Desire some unguided access (about 20% unguided)	If small number of snowmobiles allowed, 100% commercially guided	Generally desire unguided access
Sound	Generally support BAT to reduce noise	Believe snowcoaches only best addresses noise	Generally disagree there is a concern
Sylvan Pass (East Entrance)	Desire to see pass kept open	Generally support closing pass	Believe howitzer program was safe; keep pass open
Management Policies	Believe Management Policies call for balanced use of parks	Believe Management Policies call for snowcoaches only	Believe Management Policies require that park be open for access
Continental Divide Snowmobile Trail (CDST)	Keep open and allow EPA-compliant snowmobiles to use trail	Close	Keep open and allow EPA-compliant snowmobiles to use trail

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### CONCLUSION

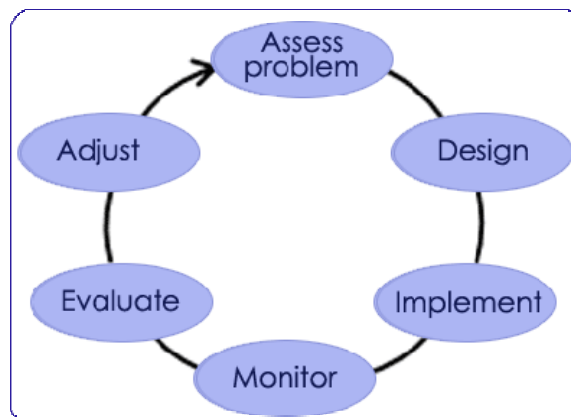
As described in the Decision and Mitigation sections, all practical means to avoid or minimize environmental harm from the selected alternative have been adopted. Because there would be no major adverse impacts to resources whose conservation is (1) necessary to fulfill specific purposes in the establishing legislation or proclamation for Yellowstone National Park, Grand Teton National Park, or the John D. Rockefeller, Jr. Memorial Parkway; (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or (3) identified as a goal in relevant National Park Service planning documents, there would be no impairment of the parks' resources or values. After a review of these effects, I find that the alternative selected for implementation will not lead to unacceptable impacts, impair park resources or values, or violate the NPS Organic Act. I further find that this decision represents an appropriate balance of the various potential uses of the parks in the winter, and is in accord with the discretion provided to the National Park Service in managing the National Park System.

### APPENDIX A. MONITORING AND ADAPTIVE MANAGEMENT PROGRAM

Adaptive management helps science managers maintain flexibility in their decisions, knowing that uncertainties exist and provides managers the latitude to change direction. Adaptive management will improve understanding of ecological systems to achieve management objectives and is about taking action to improve progress towards desired outcomes.

The emphasis in an adaptive approach is first and foremost on resource management. The value of understanding, and the monitoring and analysis that produce understanding, is inherited from their contributions to the objectives of resource management. Although the focus is on learning, the ultimate goal of the effort is smart management. It is important to recognize that adaptive management is a complex endeavor that includes much more than simply following a sequence of steps. Properly executed, the process involves ongoing, real-time learning, both in a technical sense and in terms of process itself. Stakeholders need to be engaged at the stage of initial problem formulation and remain engaged throughout implementation. Williams, et al, identifies nine steps in adaptive management (Williams, Byron K., Robert C. Szaro, and Carl D. Shapiro. 2007. "Adaptive Management: Department of the Interior Technical Guide" and associated secretarial order. Adaptive Management Working Group, U.S. Department of the Interior, Washington, DC):

1. Stakeholder involvement
2. Objectives
3. Management actions
4. Models
5. Monitoring Plans
6. Decision making
7. Follow-up monitoring
8. Assessment, and
9. Iteration.



Through this and previous winter planning processes, steps 1-5 have been completed. This Record of Decision is step 6.

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An adaptive management plan is different from a monitoring plan in that it allows park managers to act when some information exists about a specific resource but conclusive data is currently unavailable. A key step in adaptive management is to develop and implement a management scenario based on the best available information. For example, in the FEIS, several alternatives propose a specific limit on the number of winter visitors that can enter the park daily via snowmobile. The next step is to implement an evaluation program to assess the success of the management scenario relative to defined resource thresholds. This evaluation is critical within the framework of adaptive management because of the uncertain results of the initial predictions. Through adaptive management, if monitoring of use levels of snowmobiles and snowcoaches allowed under this Record of Decision indicates acceptable conditions, the NPS will increase use levels to the extent acceptable conditions can be maintained. Conversely, if monitoring of use levels of snowmobiles and snowcoaches allowed under this Record of Decision indicates unacceptable conditions, the NPS will reduce use levels to the extent acceptable conditions can be maintained.

Monitoring is also a component of this decision. General resource monitoring applies when adequate information exists to make informed management decisions based on discrete and accepted thresholds. It is the process of collecting information to evaluate if the objectives of a management plan are being realized. Appropriate monitoring techniques will be used to assess impacts to air quality, natural soundscapes, public and employee health and safety; water quality and snowpack, geothermal features; wildlife; and some aspects of the visitor experience. The table in this appendix describes monitoring and adaptive management indicators, locations/zones, preliminary thresholds, methods, and monitoring intensity. The table also identifies possible management actions that will be implemented if thresholds are violated. Some non-emergency actions, such as the construction of a new facility, may require additional site-specific NEPA analysis, which includes public involvement. Other actions might be administrative in nature or could be implemented through application of a categorical exclusion under NEPA.

The preliminary thresholds are established to help a manager understand the results of monitoring programs and be one of many guides for possibly taking action if a problem is perceived. Exceeding a threshold indicates that conditions could be moving away from those that are desirable, and in some cases exceeding a threshold may indicate that impacts are unacceptable or are causing impairment. Monitoring and adaptive management, and management action if these thresholds are violated, will ensure the parks' obligation to preserve resources and values in an unimpaired and acceptable condition is achieved, while allowing for winter use of the parks. Many of these thresholds were derived partly from the results of computational models, and they are preliminary in nature. If monitoring detects undesirable impacts in the Parks, thresholds could be adjusted to resolve these unanticipated impacts.

Changes have been made in the table as compared to earlier winter use planning documents. In particular, soundscapes thresholds have been updated with new information gleaned from four winters of monitoring. When the initial indicators and thresholds for soundscapes adaptive management were developed for the 2000 EIS and 2003 SEIS, only a limited data set was available. At that time, the data set represented the best available and most current information on soundscapes in the parks, but four additional winters of monitoring information were available along with modeling analysis for this FEIS. In addition, other NPS units and offices have and are collecting sound information and using that data in planning. The natural soundscapes thresholds were adjusted in this decision to reflect the additional knowledge that has been gained over the past years.



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**Monitoring and Adaptive Management Indicators, Thresholds, and Methods**

Resource or Value	Indicator	Location/ Management Zone	Preliminary Threshold	Preliminary Method	Initial Monitoring Intensity <sup>1</sup>	Possible Management Options if Threshold is Violated
Air Quality	Park employees and visitors exposure to CO, particulate matter, and volatile organic compounds. For comparison purposes, monitoring data for air quality may be found in section 3.4 of	Developed Area	1-hr maximum CO (w/bkgd): 8 ppm 8-hr maximum CO (w/bkgd): 3 ppm 24-hr maximum PM <sub>10</sub> (w/bkgd): 23 µg/m <sup>3</sup> No observed employee health problems due to air quality ATSDR (Agency for Toxic Substances and Disease Registry) Minimal Risk Levels	Fixed site monitoring or personal sampling for PM and CO Personal samples, cartridges, or canisters for VOCs (air toxics)	High	Require new technologies Adjust number of daily vehicle entries permitted Establish timed-entry requirements Medically monitor employees if necessary
		Road corridor	1-hr maximum CO (w/bkgd): 1 ppm 8-hr maximum CO (w/bkgd): 1 ppm 24-hr maximum PM <sub>10</sub> (w/bkgd): 6 µg/m <sup>3</sup> No observed employee health problems due to air quality ATSDR (Agency for Toxic Substances and Disease Registry) Minimal Risk Levels	Fixed site monitoring or personal sampling for PM and CO Personal samples, cartridges, or canisters for VOCs (air toxics)	Moderate	

<sup>1</sup> High = daily to weekly or in accordance with standard protocol for parameter in question; Moderate = monthly to seasonally and during peak days or use periods; Low = annually during peak use periods or at the end of the season.

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Resource or Value	Indicator	Location/ Management Zone	Preliminary Threshold	Preliminary Method	Initial Monitoring Intensity <sup>1</sup>	Possible Management Options if Threshold is Violated
	the FEIS. Modeled air quality impacts for alternatives may be found in section 4.2.3 of the FEIS.	Transition and Backcountry	1-hr maximum CO (w/bkgd): 1 ppm 8-hr maximum CO (w/bkgd): 1 ppm 24-hr maximum PM <sub>10</sub> : 5 µg/m <sup>3</sup>	Fixed site monitoring or personal sampling for PM and CO	Low	
	Visibility	Development Area and Road corridor	No perceptible localized visibility impacts	Photo Survey, time lapse video and nephelometer	High	
		Transition and Backcountry	No perceptible localized visibility impacts		Low	
	Odor	Developed Area and Road Corridor	Area free of any noticeable odor resulting from motorized recreation at least 90% of the daytime hours of park operation (8 A.M. – 4 P.M.)	Park visitor survey	High	
		Transition and Backcountry	Area free of any noticeable odor resulting from motorized recreation		Low	

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Resource or Value	Indicator(s)	Location/ Management Zone	Preliminary Threshold	Preliminary Method	Initial Monitoring Intensity <sup>1</sup>	Possible Management Options if Threshold is Violated
Natural Soundscapes	Distance and time OSV sound is audible; maximum sound level (dBA)  Note: A rare event that exceeds these thresholds may not trigger management action. For comparison purposes, monitoring data for sound may be found in FEIS section 3.7.4. Modeled sound impacts for alternatives may be found in section 4.2.6.	Developed Area	Measured during daytime hours of park operation (8 A.M.– 4 P.M.) and 100 feet from sound sources: Audibility <sup>2</sup> : not to exceed (NTE) 75% OSV sound: NTE 70 dB(A)	Audibility logging, digital recordings, and sound pressure level measurement	High	Require new technologies  Adjust number of daily vehicle entries permitted
		Road Corridor	Measured during daytime hours of park operation (8 A.M.– 4 P.M.) and 100 feet from sound sources: Audibility: NTE 50% OSV sound: NTE 70 dB(A)		High	Establish timed-entry requirements
		Transition Zone	Measured during daytime hours of park operation (8 A.M.– 4 P.M.) at selected index sites for the zone. Audibility: NTE 25% OSV sound: NTE 65 dB(A)		Moderate	

<sup>2</sup>Audibility is the percent of time OSV are audible to a person with normal hearing. A NTE 50% threshold means that OSV will not be audible more than 50% of the time during daytime hours of park operation.

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Resource or Value	Indicator(s)	Location/ Management Zone	Preliminary Threshold	Preliminary Method	Initial Monitoring Intensity <sup>1</sup>	Possible Management Options if Threshold is Violated
		Backcountry	Measured during daytime hours of park operation (8 A.M. – 4 P.M.) at selected index sites for the zone. Audibility: NTE 10% OSV sound: NTE Lnat (natural ambient sound levels)  Note: Vehicle noise, even at 6 dB(A) less than natural ambient, is usually audible due to the lower frequencies of OSV sound. Additionally, since natural and non-natural sounds tend to be in different frequencies, both can be audible at the same time, even at very low levels.		Moderate	

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Resource or Value	Indicator(s)	Location/ Management Zone	Preliminary Threshold	Preliminary Method	Initial Monitoring Intensity <sup>1</sup>	Possible Management Options if Threshold is Violated
Public and Employee Health and Safety	<p>Motor vehicle accidents</p> <p>Exposure to noise</p> <p>For comparison purposes, monitoring data for noise exposure may be found in section 3.7.4 of the FEIS.</p>	<p>Developed Area and Road Corridor</p>	<p>Continual improvement of three-year moving average</p> <p>8-hour time-weighted noise levels exceed 80 dBA and peak noise levels exceed 90 dBA.</p> <p>[See Air Quality for other health and safety thresholds.]</p>	<p>Incident descriptions and GIS mapping</p> <p>Personal exposure monitoring</p>	<p>High</p>	<p>Alter or implement commercial guiding requirements and/or ratio</p> <p>Increase signage and reduce speed limits in areas of recurring incidents</p> <p>Increase law enforcement and educational information</p> <p>Adjust number of daily vehicle entries permitted</p> <p>Require use of personal protection equipment; issue PPE; improve PPE</p>

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Resource or Value	Indicator	Location/ Management Zone	Preliminary Threshold	Preliminary Method	Initial Monitoring Intensity	Possible Management Options if Threshold is Violated
Water/Snowpack	Water quality: VOCs, pH, hydrogen, ammonium, calcium, sulfate, nitrate, and NOx	Developed Area and Road Corridor	Ref: Ingersoll (1999) compared his water quality findings for snowmelt runoff to drinking water standards. Benzene: EPA maximum limit for drinking water 0.005 mg/L. OSHA permissible exposure in workplace (8-hour day, 40-hour weeks) 1 ppm Toluene: EPA maximum limit for drinking water 1 mg/L. OSHA permissible exposure in workplace 200 ppm Ethylbenzene: EPA maximum limit for drinking water .7 mg/L. OSHA permissible exposure in workplace 100 ppm Xylene: EPA maximum limit for drinking water 10 ppm. OSHA permissible exposure in workplace 100 ppm	Snowpack sampling, snowmelt runoff, stream runoff, snowmelt/rain event	Low or as needed by changing conditions	Require new technologies Determination and application of best management practices Adjust number of daily vehicle entries permitted
		Backcountry	Benzene: EPA maximum limit for drinking water 0.005 mg/L. OSHA permissible exposure in workplace (8-hour day, 40-hour weeks) 1 ppm Toluene: EPA maximum limit for drinking water 1 mg/L. OSHA permissible exposure in workplace 200 ppm Ethylbenzene: EPA maximum limit for drinking water .7 mg/L. OSHA permissible exposure in workplace 100 ppm Xylene: EPA maximum limit for drinking water 10 ppm. OSHA permissible exposure in workplace 100 ppm	Snowpack sampling, snowmelt runoff, stream runoff, snowmelt/rain event	Low	

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Resource or Value	Indicator	Location/ Management Zone	Preliminary Threshold	Preliminary Method	Initial Monitoring Intensity <sup>1</sup>	Possible Management Options if Threshold is Violated
Geothermal Features	Human-caused damage to geothermal areas	Developed Area	No degradation of geothermal resources	Remote sensing and visual observation	High	Increase law enforcement and educational information Restrict travel
Visitor Experience	Smoothness of the groomed surface	Travel Corridor	No worse than fair 20% of the daytime hours of park operation (8 A.M. – 4 P.M.)	Visual observation	High	Increase grooming Adjust vehicle numbers when threshold temperature and/or snow conditions are forecasted or reached
	Visitor satisfaction levels with opportunities to experience and view wildlife, scenery, and clean air and solitude.	Developed Area, Road Corridor, Transition, and Backcountry	Visitors are highly satisfied (+90%) with their park experience	Visitor Survey	High	Establish carrying capacity/adjust visitor numbers Determine unsatisfactory conditions and rectify
	Visitor perception and assessment of important park resources and values	Developed Area, Road Corridor, Transition, and Backcountry	Visitors are able to see, smell, and hear the natural environment at roadside pullouts and interpretive trails 90% of daytime hours during park operation (8 A.M. – 4 P.M.)	Visitor survey Encounter rates Time lapse photos Travel simulation models Observations	High	Establish carrying capacity/adjust visitor numbers Require new technologies

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Resource or Value	Indicator	Location/ Management Zone	Preliminary Threshold	Preliminary Method	Initial Monitoring Intensity <sup>1</sup>	Possible Management Options if Threshold is Violated
Wildlife	Bird and mammal habituation and effectiveness of garbage facilities	Developed Area	Garbage, human food and other attractants unavailable to wildlife	Observations and monitoring	High	Improve or redesign facilities Alter or implement commercial guiding requirements and allocations
	Ungulate (e.g., bison and elk) movements on plowed roads	Travel Corridor	No unacceptable adverse effects. Unacceptable effects are those considered greater than "adverse moderate."	Continue bison monitoring and flights	High	Evaluate alternative transportation systems Close roads (by road segment or seasonally) Lower speed limits and increase enforcement
	Vehicle caused wildlife mortality	Travel Corridor	No unacceptable adverse effects	Incident reports, roadside surveys, GIS, and visual observations	High	Alter or implement commercial guiding requirements and allocations Evaluate alternative transportation systems Increase law enforcement and educational information Reduce speed limits



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Resource or Value	Indicator	Location/ Management Zone	Preliminary Threshold	Preliminary Method	Initial Monitoring Intensity <sup>1</sup>	Possible Management Options if Threshold is Violated
	Wildlife harassment or displacement due to vehicle sounds or movements	Travel Corridor	No unacceptable adverse effects	Incident reports and visual observations	High	Increase law enforcement and educational information Require new technologies Adjust number of daily vehicle entries permitted Alter or implement commercial guiding requirements and allocations Establish additional no-stopping zones Adjust group size requirements Establish timed-entry requirements Close roads (by road segment or seasonally)
	Wildlife trapped by snow berms in road corridor	Travel Corridor	No unacceptable adverse effects	Incident reports, roadside surveys, and visual observations	High	Increase number of exit berms and re-evaluate location of existing exits Evaluate alternative transportation systems
	Ungulate (e.g., bison and elk) use of groomed surfaces	Travel Corridor	No unacceptable adverse effects	Visual observations, air surveys, and telemetry. Continue bison monitoring	High	Close roads or eliminate grooming operations (by road segment or seasonally) Adjust grooming intensity

**WINTER USE PLANS RECORD OF DECISION**  
**Yellowstone and Grand Teton National Parks and the John D. Rockefeller, Jr. Memorial Parkway**

Resource or Value	Indicator	Location/ Management Zone	Preliminary Threshold	Preliminary Method	Initial Monitoring Intensity <sup>1</sup>	Possible Management Options if Threshold is Violated
	Carnivore (e.g., wolves and lynx) displacement and habitat effectiveness	Transition and Backcountry	Insignificant, discountable, or beneficial effects only	Monitoring and air surveys	High	Mitigate effects or close area Increase law enforcement and educational information Require new technologies Adjust number of daily vehicle entries permitted Alter or implement commercial guiding requirements and allocations Establish additional no-stopping zones Adjust group size requirements Establish timed-entry requirements Consult with USFWS for appropriate mitigation strategies
	Wildlife harassment or displacement as a result of visitor activities	Transition and Backcountry	No unacceptable adverse effects	Incident reports and visual observations	High	Increase law enforcement and educational information Require use of designated trails only Close areas to use seasonally
	Human-bear conflicts during pre- and post-denning periods	Transition and Backcountry	No unacceptable adverse effects	Mapping of denning areas and visitor use patterns and trends. Incident Reports	Moderate	