

**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**

Winter Use Plans Record of Decision Amendment – Sylvan Pass Management

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:

7/16/08

Date

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

This page intentionally left blank.

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

**RECORD OF DECISION
AMENDMENT – SYLVAN PASS MANAGEMENT**

**WINTER USE PLANS
ENVIRONMENTAL IMPACT STATEMENT**

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

Wyoming, Montana, Idaho

BACKGROUND OF THE PROJECT

On November 20, 2007, a Record of Decision was signed 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. The November 20, 2007, Record of Decision (page 6) addressed management of Sylvan Pass in Yellowstone National Park, stating:

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.

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

Since the Record of Decision, the NPS has met with representatives of the City of Cody, Wyoming, Park County, Wyoming, the State of Wyoming, and Wyoming state elected officials (collectively known as the Sylvan Pass Study Group) and explored reasonable avalanche and access mitigation safety measures and costs. A summary of the meetings is under Public and Agency Involvement on page 16 of this ROD Amendment. The outcome of the meetings was:

The Sylvan Pass Study Group recommended to the Intermountain Regional Director of the National Park Service that the November 2007 Record of Decision on Winter Use in Yellowstone National Park be amended to keep Sylvan Pass open in future winter use seasons to motorized and non-motorized oversnow travel between December 22 and March 1. The group recommends continued use of a combination of avalanche mitigation techniques, including forecasting and helicopter and howitzer dispensed explosives.

This recommendation to operate within a defined core season will reduce risk, improve safety, and maximize visitor access.

The Sylvan Pass Study group reached agreement based on the following guiding principles:

- 1) That the safety of visitors, guides and National Park Service employees is the first priority in any avalanche mitigation operation on Sylvan Pass.
- 2) That snowmobile and snowcoach motorized oversnow winter use access should be as regular and predictable as possible given weather constraints.
- 3) That regular communications between Yellowstone National Park, the City of Cody, Park County, the state of Wyoming and the Cody community is a key ingredient of any future winter operations on Sylvan Pass.

The City of Cody, Park County, and the state of Wyoming agree, in good faith, to work cooperatively to explore funding of safety and access improvements.

The members of the Sylvan Pass Study group agree to establish consistent ongoing communications regarding Sylvan Pass winter use operations.

The National Park Service agrees to make funding for safety and access improvements on Sylvan Pass a priority.

This recommendation has been taken into account in preparing this “Amendment - Sylvan Pass Management” to the November 20, 2007, Record of Decision.

DECISION (SELECTED ACTION)

Description of the Selected Action

This amended decision only addresses Sylvan Pass in Yellowstone National Park. Unless specifically modified by this Amendment, all other elements of the November 20, 2007, Record of Decision (ROD) remain in place, including all monitoring and mitigating measures. This Amendment is primarily based upon alternative 5 in the FEIS (alternative 5 calls for the same overall number of snowmobiles in Yellowstone as the November 20, 2007, decision and calls for Sylvan Pass to be kept open).

The four paragraphs on page 6 of the November 20, 2007, ROD that address Sylvan Pass are replaced with the following two paragraphs:

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

As a result of meetings between the National Park Service and the State of Wyoming, Park County, Wyoming, and the City of Cody, Wyoming, Sylvan Pass will be open for oversnow travel (both motorized and non-motorized) for a limited core season, from December 22 through March 1 each winter, subject to weather-related constraints and NPS fiscal, staff, infrastructural, equipment, and other safety-related capacities. A combination of avalanche mitigation techniques may be used, including forecasting and helicopter and howitzer dispensed explosives. The results of previous safety evaluations of Sylvan Pass by the Occupational Safety and Health Administration (OSHA) and an Operational Risk Management Assessment (ORMA) will be reviewed and updated, and the NPS will evaluate additional avalanche mitigation techniques and risk assessment tools in order to further improve safety and visitor access.

From March 2 to March 15, 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.

Key Actions

Actions Specific to Yellowstone

The four paragraphs on page 9 of the November 20, 2007, ROD that address the East Entrance road are replaced with the following two paragraphs:

East Entrance Road

- Sylvan Pass will be open for oversnow travel (both motorized and non-motorized) for a limited core season, from December 22 through March 1 each winter, subject to weather-related constraints and NPS fiscal, staff, infrastructural, equipment, and other safety-related capacities. A combination of avalanche mitigation techniques may be used, including forecasting and helicopter and howitzer dispensed explosives. The results of previous safety evaluations of Sylvan Pass by OSHA and an ORMA will be reviewed and updated, and the NPS will evaluate additional avalanche mitigation techniques and risk assessment tools in order to further improve safety and visitor access.
- From March 2 to March 15, 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, from March 2 to March 15, the road segment between Fishing Bridge and Lake Butte Overlook will be maintained for oversnow vehicle travel, subject to weather-related safety constraints.

The first paragraph on page 10 of the November 20, 2007, ROD that addresses the winter oversnow vehicle season is replaced with the following paragraph:

Winter Oversnow Vehicle Season

- In general, 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

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

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 addition, Sylvan Pass will be open for a limited core season, from December 22 to March 1 each year, subject to weather-related safety constraints and NPS fiscal, staff, infrastructural, equipment, and other safety-related capacities.

Actions and Assumptions Common to all Park Units

The following paragraph is in addition to the five paragraphs on page 16 of the November 20, 2007, ROD:

Administrative Use

- Administrative oversnow vehicle travel by NPS employees, their families, and their guests and by concession employees, their families, and their guests will occur only on groomed roads that meet safety criteria and are open for travel. Between December 22 and March 1, Sylvan Pass will only be open for administrative travel when the pass is open to the public.

OTHER ALTERNATIVES CONSIDERED

Two different Sylvan Pass management regimes were evaluated in the FEIS. Alternatives 4 and 5 called for Sylvan Pass to be open using a variety of avalanche mitigation techniques (the language in both alternatives regarding Sylvan Pass management is the same and included below). Alternatives 1-3 and alternatives 6 and 7 called for Sylvan Pass to be closed. As described above, the November 20, 2007, ROD called for Sylvan Pass to be open using full forecasting.

BASIS FOR DECISION

Yellowstone National Park

The paragraphs on pages 23-25 of the November 20, 2007, ROD that address Sylvan Pass are replaced with the following:

The amended decision for Sylvan Pass is based primarily on alternative 5 in the FEIS, which called for Sylvan Pass to be open in the winter. Alternative 5 was fully analyzed in the March 2007 Draft Environmental Impact Statement (DEIS) and September 2007 FEIS, and alternative 5 was made available for public comment during public review of the DEIS, from March to June of 2007. Relative to Sylvan Pass, alternative 5 states (on page 54 of the FEIS):

- East Entrance Road: Avalanche management at Sylvan Pass may necessitate unscheduled, temporary closures of the road segment through the pass. Management of the avalanche risk cannot guarantee the pass will be open every day of the winter season. Weather conditions can change quickly and prevent avalanche management from occurring. Other factors may also affect implementation of avalanche management.
- The Operational Risk Management Assessment evaluated a variety of ways to address avalanche issues on Sylvan Pass. The NPS would continue to evaluate which of those options represents the greatest gain and the least risk for

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

keeping Sylvan open in the winter. The NPS has done preliminary cost estimates (all included in Appendix F of the FEIS) on four options: snowsheds, fixed gas systems (Gazex and Avalhex, both described in Appendix H of the FEIS), and fixed-gas/howitzer combination. These systems may require additional NEPA analysis and extensive geotechnical investigations to determine their feasibility.

As a result of the National Park Service meeting with the State of Wyoming, Park County, Wyoming, and the City of Cody, Wyoming, Sylvan Pass will be open for oversnow travel (both motorized and non-motorized) for a limited core season, from December 22 through March 1 each year, subject to weather-related constraints and NPS fiscal, staff, infrastructural, equipment, and other safety-related capacities. A combination of avalanche mitigation techniques may be used, including risk assessment analyses as well as forecasting and helicopter and howitzer dispensed explosives. The results of previous safety evaluations of Sylvan Pass by OSHA and an ORMA will be reviewed and updated, and the NPS will evaluate additional avalanche mitigation techniques and risk assessment tools in order to further improve safety and visitor access.

From March 2 to March 15, 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.

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 negatively impacted in recent years by the changing patterns of winter visitation. They have stated how those businesses will continue to be adversely affected 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 those values and concerns and has carefully weighed those considerations.

Avalanche control at Sylvan Pass has long represented a safety concern to the National Park Service. In reviewing the original winter use plan EIS (2000), the Supplemental Environmental Impact Statement (2003), and the Temporary Winter Use Plan EA (2004), it is evident 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 could not 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. NPS employees must cross several uncontrolled avalanche paths to reach the howitzer used for discharging those avalanches, and the howitzer is 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

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

high risk activity because of other risks a helicopter contractor would have to incur, as identified in the ORMA completed by the NPS in October 2007. In addition, the Sylvan Pass Study Group has acknowledged the safety concerns associated with avalanche management and the need to manage the activities within acceptable levels of risk.

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 NPS 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 not 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, and does the safest manner possible still pose an unacceptable risk?” It is intolerable to knowingly continue a dangerous practice when report after report and analysis after analysis says that an operation poses unacceptable levels of risk.

During the FEIS process, the additional, independent work by avalanche expert Bob Comey and the ORMA (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. The ORMA indicated that travel to the pass area for assessment or mitigation action is a dangerous aspect of the operation. 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 be needed, along with additional operating monies, in order to implement any of these options. It could take four to six years before a new system could be fully in place and functional, assuming additional funding is available for such work.

In the 2007-2008 winter (as called for in the November 20, 2007, ROD), the NPS used a combination of helicopter and howitzer dispensed explosives in support of forecasting to determine if safety criteria could be met for the pass to be open. The NPS updated its operational procedures to make it clear that the pass would not be open unless safety criteria were met, and in the professional judgment of park managers, operations could be conducted within acceptable levels of risk. In the 2007-2008 winter, snowpack was 116% of average (as of late winter), nine avalanche mitigation operations were completed (3 via helicopter and 6 using the howitzer), and the pass was fully closed 10 days and parts of 16 additional days (out of a total of an 82 day winter season).

Under this amended ROD, the NPS may use a combination of techniques that have been used in the past (howitzer and helicopter), as well as techniques that may be available in the future. Area staff may use whichever tool is the safest and most appropriate for a given situation, with the full understanding that safety of employees and visitors comes first. Employees in the field make the operational determination when safety criteria have been met, and operations can be conducted with acceptable levels of risk. The NPS will not take unacceptable risks. When safety criteria have been met, the pass will be open; when they have not been met, the pass will remain closed. As with past winters, extended closures of the pass may occur.

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

Historically, Sylvan Pass has been closed for several days during the winter to allow avalanche management to occur. That is, the pass has almost never been open for the entire 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. 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.

Visitor access over Sylvan Pass is solely for recreational purposes. The East Entrance road is not a major highway, a commerce route, or 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.

Since signing the November 20, 2007, ROD, the Sylvan Pass Study Group has met a number of times and reviewed the history of decisions and activities regarding winter use in Yellowstone National Park and heard presentations on the geography of Sylvan Pass, what the park does to inform visitors to the park, how the City of Cody encourages tourism to their community and how the community views the impact on their economy due to winter use within the park, how the park conducts avalanche forecasting, and what are best approaches to avalanche safety mitigation.

The Sylvan Pass Study Group agreed that the safety of visitors, park employees and contractors must be managed within acceptable levels of risk. Through the work of the Sylvan Pass Study Group, the safety issues can be addressed and access can be allowed within acceptable levels of risk. The following steps will be taken by the NPS to ensure that winter operations meet all safety criteria and with acceptable levels of risk.

First, a limited, core season directly reduces exposure of employees and visitors to the safety concerns at the pass. Second, the previous OSHA and ORMA reports identified specific ways to improve safety and address risk concerns regarding Sylvan Pass operations. This decision is a commitment to address those previous recommendations. Initially they will be addressed through the limited season and operational procedures that insure that the pass is open and avalanche mitigation work only occur when safety criteria have been met and within acceptable levels of risk. Through evaluation and implementation of the OSHA and ORMA recommendations, some of which may require additional planning, compliance, and engineering, further improvements in safety will occur. However, full implementation of OSHA and ORMA recommendations is subject to available funding (one-time funds, on-going funds, and funds from others) and subject to further planning and compliance.

As indicated by the language of this amended decision, it is the intent of the NPS that the results of previous safety evaluations of Sylvan Pass by OSHA and the ORMA would be reviewed and updated, and the NPS would evaluate additional avalanche mitigation techniques in order to further improve safety and visitor access. The slope and howitzer platform protection devices, and other techniques identified in Appendix F of the FEIS, will be fully explored. However, as noted above, full implementation of these techniques is subject to available funding and additional compliance. Under the monitoring and adaptive management program, operational procedures will be continually reviewed and updated to ensure that day-to-day management meets all safety criteria. Also under adaptive management, the operations will continue to be reviewed, taking into account NPS fiscal, staff, infrastructural, equipment, and other safety related constraints. The pass will not be open unless safety

criteria have been met for employees, visitors, and contractors and when levels of risk have been determined to be acceptable by professional park managers.

When the pass is closed due to avalanche danger or the limited, core season, the East Entrance will remain open to visitors. 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 cooperate with its neighbors and the local Nordic ski association to help ensure that these opportunities remain.

MANAGEMENT POLICIES

This amended decision fully complies with the *Management Policies 2006*. In particular, the sections on employee safety and visitor access were reviewed in making this amended decision:

Section 1.9.1.4, Employee Safety and Health:

“The safety and health of employees, contractors, volunteers, and the public are core Service values. In making decisions on matters concerning employee safety and health, NPS managers must exercise good judgment and discretion and, above all, keep in mind that safeguarding human life must not be compromised.”

This decision will improve safety by continuing to implement a program of avalanche management that is first and foremost based on safety and by limiting the season by which the pass is open. Safety concerns brought to light in previous OSHA and ORMA reviews will be addressed. The pass will not be open for public or employee travel unless safety criteria are met.

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
- 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 visitor access over Sylvan Pass, when safety criteria have been met, will provide a variety of ways to enjoy the East Entrance area of Yellowstone. People will be able to travel through the pass area via snowmobile, snowcoach, skiing, or snowshoeing when safety criteria have been met. All other management tools, such as limits on vehicle numbers and BAT and guiding requirements, will remain in place on Sylvan Pass as in the rest of Yellowstone to ensure that unacceptable impacts do not occur to park resources and values.

FINDINGS ON IMPAIRMENT OF PARK RESOURCES AND VALUES

The Findings on Impairment of Park Resources and Values from the November 20, 2007, ROD were reviewed, and this amendment is consistent with those findings.

Policy on Impairment

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 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, including Sylvan Pass operations, was included within the FEIS. Impairment analysis and determinations are not required for the topical areas of visitor use and experience (unless the impact is resource-based), park operations (including safety), 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.

Policy on 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.

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 and Current Findings on Impairment and Unacceptable Impacts

The 2000 winter use planning effort concluded (in a Record of Decision dated November 22, 2000) that historic levels and types of snowmobile use impaired air quality, wildlife, the natural soundscapes, and opportunities for enjoyment of Yellowstone by visitors. That decision selected an alternative that would allow snowcoach access, and Sylvan Pass would have remained open. There was no finding of impairment based on resource impacts relative to having the East Entrance road and Sylvan Pass open and conducting avalanche mitigation operations (however, as noted above, impairment determinations are made on resources, not park operations, including safety).

Similarly, in the Supplemental Environmental Impact Statement (2003), the NPS also selected an alternative that would keep Sylvan Pass open with continued avalanche mitigation. As with the 2000 decision, there was no finding of impairment of park resources relative to having the East Entrance road and Sylvan Pass open and conducting avalanche mitigation operations. The Temporary EA and Finding of No Significant Impact (2004) also called for keeping Sylvan open, although different avalanche mitigation techniques were to be explored (use of a helicopter versus a howitzer). Again, there was no finding of impairment of park resources relative to the Sylvan Pass operations.

The analysis for the 2007 FEIS and this decision supports the previous documents' conclusions and did not find impairment of park resources for those alternatives (4 and 5) in the FEIS that called for continued avalanche mitigation to occur on Sylvan Pass.

The analysis in the FEIS for alternative 5 relative to public and employee health and safety indicates that major, direct, long-term and adverse impacts would occur as a result of continued avalanche mitigation operations on Sylvan Pass. The FEIS (page 244) states (with regard to Sylvan Pass):

Risks to employees may be greater than those generally posed to visitors because 1) employees conducting avalanche hazard mitigation spend more time in the pass, and 2) avalanche control work, by its very nature, is hazardous. For these reasons, this alternative would incur major, adverse, direct, and long-term impacts upon visitor and employee health and safety.

On page 245, under Mitigation of Effects, the FEIS states:

Exposure to avalanche hazards would be mitigated by area-specific forecasting, control methods such as helicopter dispensed explosives, howitzer operations, grooming and/or other appropriate control methods and mitigation measures. Other mitigation includes closure of the pass when necessary to protect human health and safety (as determined by NPS personnel). Closures may occur frequently for unlimited periods of time and are likely to inconvenience planned employee and visitor travel.

This amended decision regarding Sylvan Pass 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 park's general management plan or other relevant NPS planning documents. 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 park's 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. With regard to safety and Sylvan Pass, this amended decision makes it clear that the pass will not be open unless safety criteria are met and, in the professional judgment of park managers, operations can be conducted within acceptable levels of risk.

Resource Impacts

Although adverse impacts could occur under this amended decision for Sylvan Pass to wildlife, air quality, soundscapes, and visitor experience, impacts are at acceptable levels and may be mitigated through management actions. All monitoring and mitigating measures identified in the November 20, 2007, ROD, remain in place.

Wildlife

Elk and Bison:

No Sylvan-specific issues relative to elk and bison were identified in the FEIS, and the FEIS analysis for alternative 5 did not attribute any specific elk and bison impacts to keeping Sylvan Pass open. Overall, the qualitative assumptions, grounded in the available literature on bison and elk, made in the FEIS were 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 amended decision are predicted to be negligible to moderate, adverse, short-term, and direct. The impacts associated with the amended decision will not be of sufficient magnitude to constitute unacceptable impacts or impairment of elk or bison populations.

Wolves:

The FEIS recognized that certain impacts on wolves may occur (vehicle-caused mortality and displacement) because the East Entrance road segment is open under alternative 5 to oversnow vehicle travel, but the overall mortality impacts are expected to be negligible, adverse, direct, and short-term. Overall displacement impacts were predicted to be minor to moderate, direct, and short-term. The qualitative assumptions, grounded in the available literature on wolves, made in the FEIS were 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 amended decision will not be of sufficient magnitude to constitute unacceptable impacts or impairment of wolf populations.

Lynx and Wolverine:

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. Overall, the qualitative assumptions, grounded in the available literature on lynx and wolverines, made in the FEIS were 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. Additionally, the mitigations (limited number of visitors, completion of existing research, continued 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 amended decision are predicted to be negligible, adverse, short-term, and direct. The impacts associated with the amended decision are not predicted to be of sufficient magnitude to constitute unacceptable impacts or impairment of lynx or wolverine populations.

Coyotes and Ravens:

No specific coyote or raven impacts were identified in the FEIS relative to Sylvan Pass operations. Overall, according to the best available information, impacts on coyotes and ravens from the amended 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 amended decision are not predicted to be of sufficient magnitude to constitute unacceptable impacts or impairment of coyote or raven populations.

Eagles and Swans:

No specific eagle or swan impacts were identified in the FEIS relative to Sylvan Pass operations. Overall, the qualitative assumptions, grounded in the available literature on eagles and swans, made in the FEIS were 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 amended decision are predicted to be negligible to moderate, adverse, short-term, and direct. The impacts associated with the amended decision are not predicted to be of sufficient magnitude to constitute unacceptable impacts or impairment of eagle or swan populations.

Air Quality

Emission impacts at the maximum use levels permitted in this amended decision will be moderate, adverse, long-term (but occurring only in winter), direct, and park-wide. Impacts will be 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. With the East Entrance road 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 amended decision will not harm the integrity of park resources and values and will not constitute unacceptable impacts or impairment.

Natural Soundscapes

For soundscapes, the impact analysis for alternative 5 in the FEIS indicates moderate, short-term, adverse, direct impacts on overall park perspective. Alternative 5 calls for a similar numbers of snowmobiles and snowcoaches as alternative 7 (which the November 2007 ROD was based on), but Sylvan Pass would be open and snowmobiles would be “improved BAT” (thus quieter). Alternative 7 came to the same impact conclusion as alternative 5: moderate, short-term, adverse, direct impacts on overall park soundscapes. Impacts due to percent time audible will be major, adverse, and short-term for both alternatives. Impacts due to maximum sound levels will be minor, adverse, and short-term for both alternatives. This amended decision will be beneficial compared to current use and the historical condition. Neither impairment nor unacceptable impacts were found; the level of oversnow vehicle sound under this Amendment will not harm the integrity of park resources and values.

Visitor Experience

For visitor experience, the analysis for alternative 5 (FEIS, page 360) indicated that keeping Sylvan Pass open would “enhance the visitor experience for some, although the frequent closures necessary to maintain safe travel over the pass would inconvenience some, and the ongoing risk of an avalanche accident or fatality would be an ongoing safety concern.” Under this amended decision, Sylvan Pass will be managed to ensure that winter operations meet all safety criteria and with acceptable levels of risk. Thus, the analysis for alternative 5 is applicable to this Amendment. Under this amended 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, 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

As stated in the November 20, 2007, ROD, 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 on park resources and values and to make adjustments, as appropriate, in winter use management. Appendix A of the November 20, 2007, ROD contains a discussion and table on the monitoring and adaptive management framework. The thresholds within the adaptive management framework are tools for managers to help them determine if the goals and objectives of the winter use plans are being achieved. Such thresholds 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 for the management of Sylvan Pass would be the same as identified in the November 20, 2007, ROD, alternative 3B. 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, including the East Entrance road. 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.

PUBLIC AND AGENCY INVOLVEMENT

The Sylvan Pass Study Group, which consisted of representatives of the National Park Service, City of Cody, Wyoming, Park County, Wyoming, the State of Wyoming, and Wyoming state elected officials, met six times between December 2007 and June 2008.

Carl Moore of Santa Fe, New Mexico, was asked by the Intermountain Region of the National Park Service to design and facilitate how the "exploration" would occur. He invited Yellowstone National Park and the governments of Wyoming, Park County and the City of Cody to each send two representatives to participate in the process. Dr. Moore was assisted in the facilitation by Rick Frost of the National Park Service.

The group met for the first time on December 17, 2007, in Billings, Montana to develop the ground rules for how they would operate. The ground rules stipulated:

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

The group's authority and purpose,
The timeframe for the work of the group,
Limits on the focus of the group (expressed as parameters/givens/exclusions),
Who would be the lead member invited to participate (and that each lead participant could select one other person so long as they represent their government),
The approach that the group would use,
The roles and responsibilities of the facilitator and the group members,
That the group would reach its conclusions based on consensus of the participants,
The "rules of procedure" the group would follow,
How communications would be managed,
That informational portions of meetings would be open to the public, but group deliberations would be closed to the public at large unless otherwise agreed to by the group,
How communication with the media would be managed, and
That representatives of the three states' Congressional Delegations would be invited to observe the deliberations of the Sylvan Pass Study Group.

The following people were members of the group: Wyoming Legislature: Pat Childers and Colin Simpson; Park County, Wyoming: Tim French; Yellowstone National Park: Suzanne Lewis and John Sacklin; City of Cody: Roger Sedam and Jenni Rosencranse; and State of Wyoming: Mark Toft.

The group met on January 28 and 29, March 11, April 24 and 25, May 19, and June 2 and 3.

The January meeting provided an opportunity for the group to learn together about issues involving Sylvan Pass. The group reviewed the history of decisions and activities regarding winter use in Yellowstone National Park and heard presentations on the geography of Sylvan Pass, what the park does to inform visitation to the park, how the City of Cody encourages tourism to its community and how it views the impact on of winter use within the park on its economy, how the park conducts avalanche forecasting, and what are the best approaches to avalanche safety mitigation.

Presenters included:

Dale Reinhart, a park landscape architect, and Craig Dewey, from the Federal Highway Administration, who have done considerable work on the road through Sylvan Pass and spoke on the unique geography of the Pass;

Maura Longden, Lake District Ranger in the park, who spoke on how the park does avalanche forecasting and mitigation;

John Lounsbury, retired Lake District Ranger in the park, who spoke on the history and practices of avalanche safety mitigation in the park; and

Don Bachman, Bob Comey, and Ted Wells, all people with extensive avalanche safety backgrounds, who presented information regarding avalanche behavior and control measures. Don Bachman has spent most of the last 48 years as a snow safety specialist and has avalanche forecasting and control experience on several highway corridors. Bob Comey is Director of the Bridger-Teton National Forest Avalanche Center and lead forecaster at the

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

Jackson Hole Mountain Resort. Ted Wells is an engineer with the Wyoming Department of Transportation and responsible for avalanche safety mitigation.

The Sylvan Pass Study group concluded that there was “significant learning as a result of high quality, informative presentations that reflected a range of opinions and experiences.”

The March meeting began with a review of two reports prepared by the National Park Service ("Yellowstone National Park 2007-2008 Winter Summary, draft, March 10, 2008," and "Current Status-Sylvan Operations Winter 2007-2008 through March 9"). The group also reviewed the mission of Yellowstone National Park. The group then turned its attention to its core purpose and explored reasonable avalanche and access mitigation safety measures that could provide continued snowmobile and snowcoach motorized oversnow access to Yellowstone National Park through East Gate via Sylvan Pass in the winter use seasons beyond 2007-08.

The April meeting examined the costs of full forecasting as defined in the Record of Decision and the actual itemized costs of those elements of avalanche hazard mitigation exercised during the winter season of 2007-2008. The cost estimates, provided by the park, were based on the 2000 report by the Occupational Safety and Health Administration and the 2007 Operational Risk Management Assessment of the avalanche control and mitigation program on Sylvan Pass. Following the discussion of the cost estimates, the group began consideration of a potential community education and communications plan, and they explored potential reasonable limits upon the park’s provision of avalanche hazard mitigation.

A brief meeting occurred in May (some members were connected by phone), and the group met for the last time in June where they reached agreement on a recommendation to the Intermountain Regional Director of the National Park Service. The recommendation is on page 4 of this ROD Amendment - Sylvan Pass Management.

Meeting summaries were provided to the participants and observers and to members of the public who attended the information sharing portions of the meetings. Information about the meetings was also posted on the NPS winter use planning web site (<http://www.nps.gov/yell/parkmgmt/sylvanstudy.htm>).

CONCLUSION

I have reviewed this ROD Amendment - Sylvan Pass Management in the context of the November 20, 2007, Record of Decision and the FEIS that both the November ROD and this Amendment are based upon. 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 Sylvan Pass Amendment will not lead to unacceptable impacts, impair park resources or values, or violate the NPS Organic Act. I further find that this decision regarding Sylvan Pass represents an appropriate balance of the various potential uses of the parks in the winter, and this Amendment is in accord with the discretion provided to the National Park Service in managing the National Park System.