Frequently Asked Questions

About the Final Winter Use Plan / Supplemental Environmental Impact Statement & Proposed Rule

Yellowstone National Park
National Park Service

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General Winter Use Information

Why hasn't this issue been resolved yet?
Winter use in Yellowstone has been debated for more than 75 years with concerns focusing on issues from plowing the roads to the effect of snowmobile and snowcoach use on the park's air quality, wildlife, and soundscapes. We've passed through several phases of winter use – from no regulation of OSVs to a managed-use era that sets limits on OSV use, in place since 2004. The NPS has produced three long-term plans for winter use since 2000 which have been invalidated by Federal courts.

Why does the park need a special rule to allow winter use?
Typically, oversnow vehicles (OSVs) are not allowed in national parks. National Park regulation 36 CFR 2.18 prohibits oversnow vehicle use in parks when there is no specific rule authorizing their use. Colloquially, this is known as the "closed unless open rule." The National Park Service (NPS) has released a Final Supplemental Environmental Impact Statement (final plan/SEIS) and published a proposed rule for managing winter use. In order to authorize the continued use of OSVs in Yellowstone, the NPS must sign a Record of Decision (ROD) for the final plan/SEIS and publish a final rule.

What is a final plan/SEIS and what does it do?
The final plan/SEIS analyzes the environmental impacts of a range of scenarios, or alternatives, for the management of winter use at Yellowstone National Park. The final plan/SEIS informs the Record of Decision and rule (regulation).

What is the difference between the winter use plan/SEIS and the rule?
The plan/SEIS was prepared pursuant to the requirements of the National Environmental Policy Act (NEPA), and contains an analysis of the environmental impacts that would occur under

several different scenarios (alternatives) for managing winter use. The plan also contains some additional elements that are not in the rule (which can be implemented without rulemaking).

The rule (aka: regulation) is required in order to allow any OSV use in the park, and sets forth how the alternative that is ultimately selected from the plan/SEIS would be implemented. The rule is ultimately what allows OSV use in the park.

How long will this plan/SEIS last?
The plan/SEIS is intended to remain in effect for approximately 20 years. Our preferred alternative includes an adaptive management process, which allows the NPS to take additional steps for winter use management that are within the scope of the plan/SEIS, without beginning a new planning process. Should there be an impetus for changing the rule – the introduction of better technology or a finding of unsatisfactory impacts – the park may begin another planning process at any time.

Is the analysis of winter use a precursor to examining summer use?
No. Because a special rule is required to be in place before allowing oversnow use, we have prepared the plan/SEIS to outline our proposed management and to assess the environmental effects of various management alternatives for winter use only. There is no similar rule requirement for allowing summer use.

Final Plan/Supplemental Environmental Impact Statement & Proposed Rule

Which impact topics did you evaluate in the final plan/SEIS?
The following impact topics were assessed in detail in Chapter 4 of the plan/SEIS:

1) Wildlife and Wildlife Habitat, including Rare, Unique, Threatened, or Endangered Species, and Species of Concern;
2) Air Quality;
3) Soundscapes and the Acoustic Environment;
4) Visitor Use, Experience, and Accessibility;
5) Health and Safety;
6) Socioeconomic Values; and
7) Park Management and Operations.

What alternatives did you assess in the final plan/SEIS?
Alternative 1: No public OSV use because the interim rules in effect from 2009 to 2013 would expire and therefore the general rule prohibiting OSV use would take effect. Approved non-motorized use would continue.

Alternative 2: Management of OSVs would allow for snowmobile and snowcoach use levels of up to 318 snowmobiles and 78 snowcoaches per day. All OSV requirements under the 2009 to 2013 interim rules would continue, including all OSV guide requirements, hours of operation

restrictions, and Best Available Technology (BAT) requirements for snowmobiles. BAT requirements would be developed and implemented for snowcoaches.

Alternative 3: OSV access to the park would transition to BAT snowcoaches only. Alternative 3 would initially provide for both snowmobile and snowcoach access under interim rule levels of up to 318 snowmobiles and 78 snowcoaches per day until the 2017-2018 winter season when all snowcoaches would need to meet BAT requirements. Beginning in 2017-2018, operators would have three years – until the 2020/2021 winter season – to phase out snowmobiles. Once the 3-year phase-out is complete, up to 120 snowcoaches would be allowed in the park per day and the East Entrance Road (Sylvan Pass) would be closed to use during the winter season.

Alternative 4 (NPS preferred alternative): the park would manage OSV use by setting a maximum number of daily transportation events allowed into the park. A transportation event is defined as one snowcoach or a group of up to 10 snowmobiles, averaging 7 snowmobiles per group per season, traveling together within the park. Transportation events are based on evidence that, when managed appropriately, a New BAT snowmobile transportation event and a BAT snowcoach transportation event have comparable levels of adverse impacts to park resources and the visitor experience. Managing by OSV transportation events is an impact-centric OSV management approach that would minimize impacts to park resources, enhance the visitor experience, and permit growth in visitation as new technologies become available.

The park would permit up to 110 transportation events daily, of which up to 50 daily transportation events may be groups of snowmobiles (the remaining 60 would be allocated to snowcoaches). This approach facilitates greater operator flexibility, rewards future OSV technological innovations, and reduces OSV-caused environmental impacts. If OSVs meet enhanced environmental performance standards (described as "E-BAT" in the plan/SEIS), commercial tour operators would be permitted to increase their average transportation event size from one to two snowcoaches and from an average of up to seven to an average of up to eight snowmobiles per transportation event (while keeping snowmobile transportation events at a maximum of 10 snowmobiles per event). Alternative 4 would be phased-in over several winter seasons to allow the park and operators adequate time to meet the new requirements and amortize existing OSVs.

Four transportation events per day (one per gate) would be reserved for non-commercially guided snowmobile access. Each non-commercial snowmobile transportation event could contain up to five snowmobiles and each non-commercial guide would be allowed to lead up to two non-commercial trips per season. Permits for this opportunity would be allocated via an on-line lottery system (see appendix C of the plan/SEIS for more information regarding the non-commercial guiding program).

What changes were made between the draft and the final plan/SEIS?

The final plan/SEIS contained a number of changes from the draft plan/SEIS, namely:

1) Appendix A: Comparability Assessment of Snowmobile and Snowcoach Transportation Event Impacts to Park Resources and Values and the Visitor Experience: This appendix was added in response to requests made during the public comment period on the draft plan/SEIS requesting that a stand-alone section of the final plan/SEIS be dedicated to

discussing the comparability of snowmobile and snowcoach transportation events in terms of their relative impacts to park resources and values and visitor experience.

The purpose of this appendix is to assess the comparability of transportation event impacts for the following five impact topics: (1) Wildlife and Wildlife Habitat, including Rare, Unique, Threatened, or Endangered Species, and Species of Concern, (2) Air Quality, (3) Soundscapes and the Acoustic Environment, (4) Visitor Use, Experience, and Accessibility, and (5) Health and Safety.

Given best available data for each of these impact topics, we were able to assess comparability of the two types of transportation events at either the "per person" or "per transportation event" levels for one or more metrics. The existing data did not permit meaningful assessment of comparability for impact topics Socioeconomic Values and Park Operations and Management. These impact topics are reviewed in-depth in chapter 4 of the plan/SEIS.

2) Air Quality Modeling: NPS worked closely with the Environmental Protection Agency (EPA) to refine modeling inputs, and assumptions to best represent current and future OSV fleets.
3) Soundscape Modeling: We reran analyses with updated inputs to best represent current and future fleets of snowmobiles and snowcoaches.
4) Speed Limit: In response to public comment, the speed limit parkwide was reduced from 45 MPH to 35 MPH in travel corridors.
5) Implementation of BAT: Under the preferred alternative, New BAT (best available technology) for snowmobiles and BAT for snowcoaches would be required *no later than* December 2017. Voluntary E-BAT (enhanced) standards would be available for both snowmobiles and snowcoaches which would allow commercial tour operators to increase their daily average event size.
6) Noise Testing Procedure: Noise emission testing for both snowmobiles and snowcoaches would utilize the Society of Automotive Engineers (SAE) J1161 test, modified slightly from the current 15 mph steady throttle to the typical cruising speed of OSVs in Yellowstone (approximately 35 mph for snowmobiles and 25 mph for snowcoaches).

Why is Alternative 4 the preferred alternative?

Alternative 4 was identified due to its potential to make the park cleaner and quieter than what has been authorized in past winter seasons while also allowing for increases in park visitation.

Rather than focusing solely on numbers of OSVs allowed in the park, managing by transportation events focuses on the impacts that result from OSV use and recognizes that impacts to wildlife, natural soundscapes, and park visitors are affected by groups of vehicles (transportation events), rather than each individual vehicle within a discrete group. This management framework is impact-centric, rather than vehicle number-centric and is consistent

with the science of winter use, particularly the science related to natural soundscape preservation and wildlife disturbance. By grouping OSVs in discrete groups and limiting the total number of groups allowed entry each day into the park, the park would be able to decrease impacts to wildlife and increase the time that natural sounds predominate the wintertime landscape.

Alternative 4 would promote advances in OSV innovations and technology by implementing BAT standards for snowcoaches, New BAT standards for snowmobiles, and a commitment to adaptive management. The option for operators to increase the average number of OSVs in a transportation event through implementation of voluntary E-BAT standards also would promote further innovation in OSV technology.

Because alternative 4 would allow for both snowmobile and snowcoach use, it would allow for a variety of visitor experiences. Alternative 4 would provide for greater operator flexibility to respond to fluctuations in market demand because it allows commercial tour operator to decide whether to use their allocation of transportation events on snowmobiles or snowcoaches.

What are the key elements of Alternative 4?

- OSV use would be managed by transportation events.
- The park would be cleaner and quieter than authorized under previous plans.
- OSV use would continue to be 100 percent guided.
- All OSVs would need to meet air and sound emission (BAT) requirements.
- It contains market-based elements that give commercial tour operators greater flexibility to respond to fluctuations in visitation demand across the winter season.
- It demonstrates commitment to monitor winter use and to use the results of this monitoring to adjust the winter use OSV management program.

How did you identify Alternative 4 as the NPS preferred alternative?

We considered how well the alternatives met our legal requirements, the result of the impact-analysis in the plan/SEIS, how well alternatives met the purpose, need, and objectives of the plan/SEIS, and comments we received during this and previous planning efforts.

How would the preferred alternative be implemented?

The preferred alternative would be implemented in three phases beginning with the 2013-2014 winter season, with full implementation of the plan *no later than* the 2017-2018 winter season.

Phase I: The first phase of the transition to the preferred alternative would occur during the 2013-2014 winter season and would allow for snowmobile access under interim rule levels of up to 318 snowmobiles per day. Existing BAT standards for snowmobiles would be retained during this season:

- Noise: maximum of 73 dBA via SAE J192
- Air Emissions (tailpipe pollutants): 120 g/kW-hr of CO and 15 g/kW-hr of hydrocarbons

Phase 2: The second phase of the transition to the preferred alternative would begin in the 2014-2015 season when the park would allow up to 110 transportation events daily, of which up to 50 daily transportation events may be groups of snowmobiles. Up to four of the 50 snowmobile transportation events would be reserved for non-commercially guided snowmobile groups, provided that non-commercially guided snowmobiles meet BAT standards. Operators could voluntarily upgrade their fleets to the New BAT standards for snowmobiles at this time or wait until the New BAT standards become mandatory. For snowmobile operators who do not upgrade their fleet to New BAT standards during this phase, vehicle numbers would be averaged daily. For commercial snowmobile tour operators who upgrade at least 10 snowmobiles in their fleets to the New BAT standards for snowmobiles, and operate these New BAT snowmobiles together as one group (event), snowmobile numbers would be averaged seasonally for that transportation event allocation.

Phase 3: The third and final phase of the transition to the preferred alternative would start *no later than* the 2017-2018 season. By that time, all snowmobiles would be required to meet New BAT standards and snowcoaches would be required to meet BAT standards. Please note that the proposed rule specifically asks for public comment on moving this implementation date up for snowmobiles (to December 2015) and snowcoaches (to December 2016).

Public Comment Opportunities and Schedule

What's next in the process?

The Superintendent will use the analysis and recommendations contained in the final plan/SEIS and comments on the proposed rule to make a recommendation to the NPS Intermountain Regional Director regarding which alternative should be selected for implementation, and if that alternative is the preferred alternative, as expected, whether any changes should be made to the preferred alternative prior to implementation. The Regional Director is expected to issue the Record of Decision (ROD), which formally concludes the SEIS process, after the public comment period for the proposed rule closes. Once the ROD has been issued and public comments on a proposed rule have been considered, a final rule to implement the decision will be published in the Federal Register in order to allow the park to open for the 2013-2014 winter season.

How can I comment on the final plan/SEIS or Proposed Rule?

There is no public comment period on the final plan/SEIS. There will be a 60-day comment period on the proposed rule. Comments are due on the proposed rule no later than June 17, 2013. You can submit comments either online or hardcopy.

To comment on the proposed rule online, go to the Federal e-Rulemaking Portal: http://www.regulations.gov and search under "Documents Open for Public Comment" and select the National Park Service as the agency. The Regulation Identification Number (RIN) is 1024-AE15.

To comment on the proposed rule via hardcopy, either (1) mail your comment to: Winter Use Planning, P.O. Box 168 Yellowstone National Park, WY 82190, or (2) hand deliver your written

comments to: Management Assistant's Office, Headquarters Building, Yellowstone National Park, WY 82190.

Will there be any more public meetings?
The NPS does not plan on holding public meetings on the final plan/SEIS.

I've commented in the past – why should I continue to comment?
Your feedback is a critically important part of the winter use planning process. The final plan/SEIS and the proposed rule are, to some extent, reflections of public meetings and comment periods. Comment periods help us identify any gaps in our analysis or continued areas of concern that may not be addressed by the proposed rule or the final plan/SEIS.

Managing by Transportation Events (NPS Preferred Alternative)

What is a transportation event?
A transportation event would initially equal one group of up to 10 New BAT snowmobiles, with a seasonal average of 7 snowmobiles per transportation event, or one BAT snowcoach. The average size of a transportation event size may increase from an average of 7 to 8 for snowmobiles and from a maximum of 1 to 2 for snowcoaches, if commercial tour operators use vehicles that meet voluntary enhanced BAT (E-BAT) standards.

Transportation events are based on two principles; that packaging traffic into events and limiting the total number of events reduces impacts to the park and that the impact of one snowcoach and a group of up to 10 snowmobiles, averaging seven seasonally, are comparable in terms of their impact to air quality, the soundscape, wildlife, and visitors' experiences at Yellowstone. Please see the "Comparability" section of these FAQs or Appendix A in the plan/SEIS for more details.

What are the advantages of managing by transportation events?
Managing by transportation events is impact-centric rather than vehicle number-centric and is consistent with the science of winter use, particularly the science related to natural soundscape preservation and wildlife disturbance than managing by absolute numbers of OSVs. By grouping OSVs together into discrete groups and by setting a maximum number of transportation events allowed entry each day into the park, the NPS is able to limit and control impacts to wildlife and increase the time that natural sounds predominate the winter landscape. Managing by transportation events also provides OSV manufacturers and commercial tour operators with incentives to produce and use cleaner and quieter OSVs. In return, more visitors can visit Yellowstone while impacts to park resources are further reduced through better OSV environmental performance.

In the past, the NPS and interested parties have focused on the total number of vehicles authorized to access the park. However, this emphasis is misleading because impacts to wildlife and soundscapes stem from groups of vehicles, not individual vehicles. By packaging traffic into transportation events and capping the total daily number of transportation events, the park proactively reduces the amount of time vehicles are audible, therefore reducing impacts to

natural soundscapes. By limiting the number of daily transportation events in the park, wildlife would be disrupted fewer times. These steps, in combination with continued 100 percent guiding requirements, BAT standards for snowcoaches, and New BAT standards for snowmobiles, would limit impacts on the park's flora, fauna, soundscape, and air quality into the future, while providing opportunities for visitors to experience the park's unique winter resources.

Why are you capping the number of snowmobile transportation events at 50?
Public comments reflected strong support for placing limits on all oversnow vehicles in the park, including the total number of snowmobiles.

Why does grouping vehicles together make a difference?
Managing by transportation events encourages commercial tour operators to group or package their vehicles – and therefore disturbances – together. Our modeling suggests that packaging vehicles into groups limits the percentage of time OSVs can be heard throughout the day and reduces the impacts OSVs have on visitors and the number of times wildlife are disturbed. In other words, the same numbers of vehicles produce fewer impacts to the soundscape or wildlife when grouped together rather than when traveling individually. Managing OSVs by transportation events results in fewer disturbances to wildlife, the natural soundscape, and to visitors and allows the park to increase the number of visitors that could be accommodated each day without increasing the level of impacts to park resources.

How close together do snowmobiles need to be to be considered a single event?
Snowmobiles would be required to travel within one-third of a mile between the first and last snowmobile. Limiting the total distance between the first and last snowmobile in a group, along with lowering the snowmobile speed limit to 35 MPH, helps ensure that they can travel safely and have minimal impacts to wildlife and the natural soundscape.

How did you come up with the transportation event group sizes?
For the past 8 years, regardless of the total number of snowmobiles authorized for use in the park, snowmobiles have averaged about 6.7 snowmobiles per group and 1 snowcoach per group. Using this baseline, we examined the impacts of snowcoaches and groups of snowmobiles to park resources and values. Our data show that when held to proposed New BAT standards, a group of up to 10 snowmobiles, averaging seven for the season, and a single BAT snowcoach have comparable impacts to soundscapes, air quality, and wildlife. Appendix A of the Final plan/SEIS is dedicated to fully explaining comparability of snowmobile and snowcoach transportation event impacts.

How many daily transportation events would be authorized?
Daily, transportation events would be limited to 110; no more than 50 transportation events would be reserved for snowmobiles and the remaining 60 for snowcoaches. Four of the 50 daily transportation events would be reserved for non-commercially guided groups of snowmobiles.

The total number of commercial oversnow vehicles in Yellowstone on a given day would vary depending on how operators allocate their transportation events and how visitors choose to

enter the park.

- If operators use the maximum available number of transportation events for snowmobiles – 46 for commercially guided groups and 4 for non-commercially guided groups – there could be a maximum of 480 snowmobiles in the park. However, because commercial tour operators would be required to meet a seasonal average of seven snowmobiles per event or less, this level of use could not happen every day.
- If all 106 commercial transportation events are used for snowcoaches (leaving 4 transportation events for non-commercially guided snowmobile groups) there could be 106 snowcoaches in the park and 20 snowmobiles (all non-commercially guided snowmobiles). If oversnow vehicles meet an enhanced BAT (E-BAT) standard, the number of snowcoaches could potentially double.

How would transportation events be allocated?
Transportation Events would be allocated across the four gates and Old Faithful as follows:

Park Entrance/ Location	Commercially Guided Snowmobiles	Non-commercially Guided Snowmobiles	Commercial Snowcoaches	Total Events
West Entrance	23	1	26	50
South Entrance	16	1	10	27
East Entrance	3	1	2	6
North Entrance	2	1	10	13
Old Faithful	2	0	12	14
Total	46	4	60	110

How does 110 transportation events compare to current oversnow vehicle use?
The interim rule allowed up to 237 discrete groups (transportation events) into the park on a given day (78 snowcoaches + 159 groups of two snowmobiles each).

Using the historical average of seven snowmobiles per group (~7), the interim regulations could have produced, on a maximum use day, up to 123 discrete groups of OSVs (78 snowcoaches + 45 snowmobile groups).

Alternative 4 caps the total number of transportation events at 110 per day. And while the preferred alternative does allow for an increase in the total number of OSVs on certain days, it decreases below current authorized levels (interim regulation) impacts to soundscapes and wildlife by limiting the number of total transportation events in the park.

Have you considered reducing the number of snowmobiles per group?
We considered reducing the number of snowmobiles per group, but our data show that it is the number of transportation events (discrete groups), not necessarily the total number of vehicles within a group, that is the primary determinant of impacts to Yellowstone's wildlife and natural soundscapes. For those reasons, our preferred alternative caps the total number of transportation events, but allows for flexibility in the number of vehicles within a transportation

event.

If today's limit is 318 snowmobiles, why would you allow for an increase?
Focusing on vehicle numbers alone is misleading because impacts to resources such as soundscapes and wildlife stem from groups of vehicles (what we have termed transportation events), not individual oversnow vehicles per se. While our preferred alternative does allow for higher numbers of total snowmobiles than authorized under the interim rules, it proactively caps the total number of transportation events at levels lower than the interim rules, thus reducing impacts.

Additionally, snowmobiles and snowcoaches under the preferred alternative would not be the same as snowmobiles and snowcoaches today. Each would be subject to more stringent noise and emission standards that would further lessen their impact on park resources. Overall, while the preferred alternative would allow a higher number of vehicles in the park on certain days, due to transportation event management, New BAT requirements for snowmobiles and BAT requirements for snowcoaches, the impacts to park resources are expected to be less than those allowed under the interim rules.

How would you monitor and ensure that limits are not exceeded?
Exactly same way we manage vehicles today – by requiring operators to report use throughout the winter season.

Is NPS administrative travel considered or factored in the transportation event allocations?
No, administrative travel is not part of the transportation event allocations. Administrative travel was, however, factored into our modeling and impact analysis in the plan/SEIS.

Can the limit on the total number of snowmobiles be lifted if all snowmobiles are electric?
No. Electric snowmobiles were not evaluated in the plan/SEIS because it is difficult to make predictions based on technologies that do not yet exist. In order to increase the number of snowmobile events, new NEPA compliance would need to be completed and the winter use rule would need to be amended.

Comparability

What do you mean when you say that snowmobiles and snowcoaches are comparable?
By "comparable," the National Park Service (NPS) means that the impacts from the two types of transportation events are relatively close to one another and that neither mode of transportation consistently results in fewer adverse impacts to park resources and values or provides a more beneficial visitor experience. The NPS does not state the two types of oversnow vehicle (OSV) transportation are *equivalent*; rather that:

- One mode of transportation is not conclusively cleaner, quieter, or less harmful to wildlife than the other;
- One mode of transportation does not provide for higher quality visitor experiences than the other;

- One mode of transportation is not conclusively more harmful to health and safety of visitors and employees than the other; and
- At the levels prescribed under the preferred alternative, neither form of oversnow transportation would result in a level of adverse impacts on park resources that would necessitate an outright ban on that type of transportation.

Where did you get the data to assess comparability?
All data was obtained from the final plan/SEIS, the Scientific Assessment of Yellowstone National Park Winter Use (March 2011), and other applicable documents and studies such as the Air Quality Modeling Report (ARS 2012) and Yellowstone Over-snow Vehicle Emissions Tests Report (Ray 2013). Data are taken only from Yellowstone-specific literature whenever possible due to the unique situation in the park in winter, and are limited to the "managed use" era (December 2004 through present) in most cases.

What were your levels of analyses?
Comparability was assessed at the "per person" and "per transportation event" (defined as a single BAT snowcoach or a group of up to 10 New BAT snowmobiles, seasonal average of 7 per group) levels whenever possible. For some impact topics such as Air Quality, comparability can be assessed at both the "per person" and "per transportation event" levels. For other impact topics such as Soundscapes and the Acoustic Environment, analyses were only possible at the transportation event level. In a few infrequent instances, the analyses rely on forecasted impacts at the SEIS alternative level (such as pounds of tailpipe pollutants per person on a maximum use day).

For which impact topics did you assess comparability?
We examined comparability for the following five impact topics:

1. Wildlife and Wildlife Habitat, including Rare, Unique, Threatened, or Endangered Species, and Species of Concern,
2. Air Quality,
3. Soundscapes and the Acoustic Environment,
4. Visitor Use, Experience, and Accessibility, and
5. Health and Safety.

Given best available data, for each of these impact topics it was feasible to meaningfully assess comparability of the two types of transportation events at either the "per person" or "per transportation event" levels for one or more metrics. The existing data did not permit meaningful assessment of comparability for impact topics Socioeconomic Values and Park Operations and Management. These impact topics are reviewed in-depth in chapter 4 of the plan/SEIS.

Regarding wildlife - what metrics did you use?
For wildlife we looked at behavioral responses, physiological responses, acoustical interference and masking, direct mortality, population dynamics and distribution, and habituation and

tolerance.

Regarding wildlife - what conclusions were you able to draw?

1) White et al. (2009) found that probabilities of movement were greater for bison exposed to snowcoaches than for those exposed to snowmobiles; "the odds of observing a movement response were 1.1 times greater for each additional snowmobile, 1.5 times greater for each additional coach" (p. 587).
2) Also for bison, the results are mixed in terms of percentage of "active" movement responses generated by the two different types of events. In 2006-2007, snowmobiles caused an "active" movement response 3.1 percent of the time versus snowcoaches which caused an "active" movement response 0.7 percent of the time. In 2008, snowmobiles caused an "active" movement response 8 percent of the time to snowcoaches 8.8 percent. In 2009, the percentages were almost even – 3.5 percent to 3.7 percent, snowmobiles to snowcoaches.
3) For elk, during the winter seasons of 2006-2007 and 2008-2009, no "active" behavioral response (travel, alarm-attention, or flight) was observed from either snowmobile or snowcoach transportation events. During the winter season of 2007-2008, snowmobile transportation events caused an "active" behavioral response 11.4 percent of the time and snowcoaches caused an "active" behavioral response 20.5 percent of the time.
4) For trumpeter swans, the results are mixed in terms of percentage of "active" movement responses caused by the two different types of transportation events. For the three years of reporting summarized in this appendix, snowmobiles caused an "active" movement response 3.4 to 4.8 percent of the time while snowcoaches caused swans to exhibit an "active" movement response zero to 13.8 percent of the time.
5) The best available evidence strongly indicates that OSV use during the managed use era has had no discernible effect on population dynamics or distribution for the five species (bison, elk, trumpeter swans, wolves, and bald eagles) that have been studied extensively. Instead, these data suggest that other ecosystem stressors, not OSV use, are dominant influences on these wildlife species.

Regarding air quality – what metrics did you use?

We looked at two criteria for snowmobile and snowcoach comparability:

1) Tailpipe emissions for a representative round trip from West Yellowstone to Old Faithful
2) Pounds of tailpipe pollutants per person on a maximum use day

Regarding air quality – what conclusions were you able to draw?

The NPS estimated the "Air Quality Impacts at the Person and Event Level for a Representative Roundtrip from West Yellowstone to Old Faithful" (see Appendix A, page A-16 through 17 for a full discussion). The NPS concluded that an average snowmobile transportation event (comprised of 7 New BAT snowmobiles) and a BAT snowcoach transportation event (1 BAT snowcoach) both appeared to offer some benefits and some drawbacks relative to each other in terms of tailpipe emissions and that there is no universally "cleaner" (less polluting) mode of

oversnow transportation for a representative round trip from West Yellowstone to Old Faithful and back.

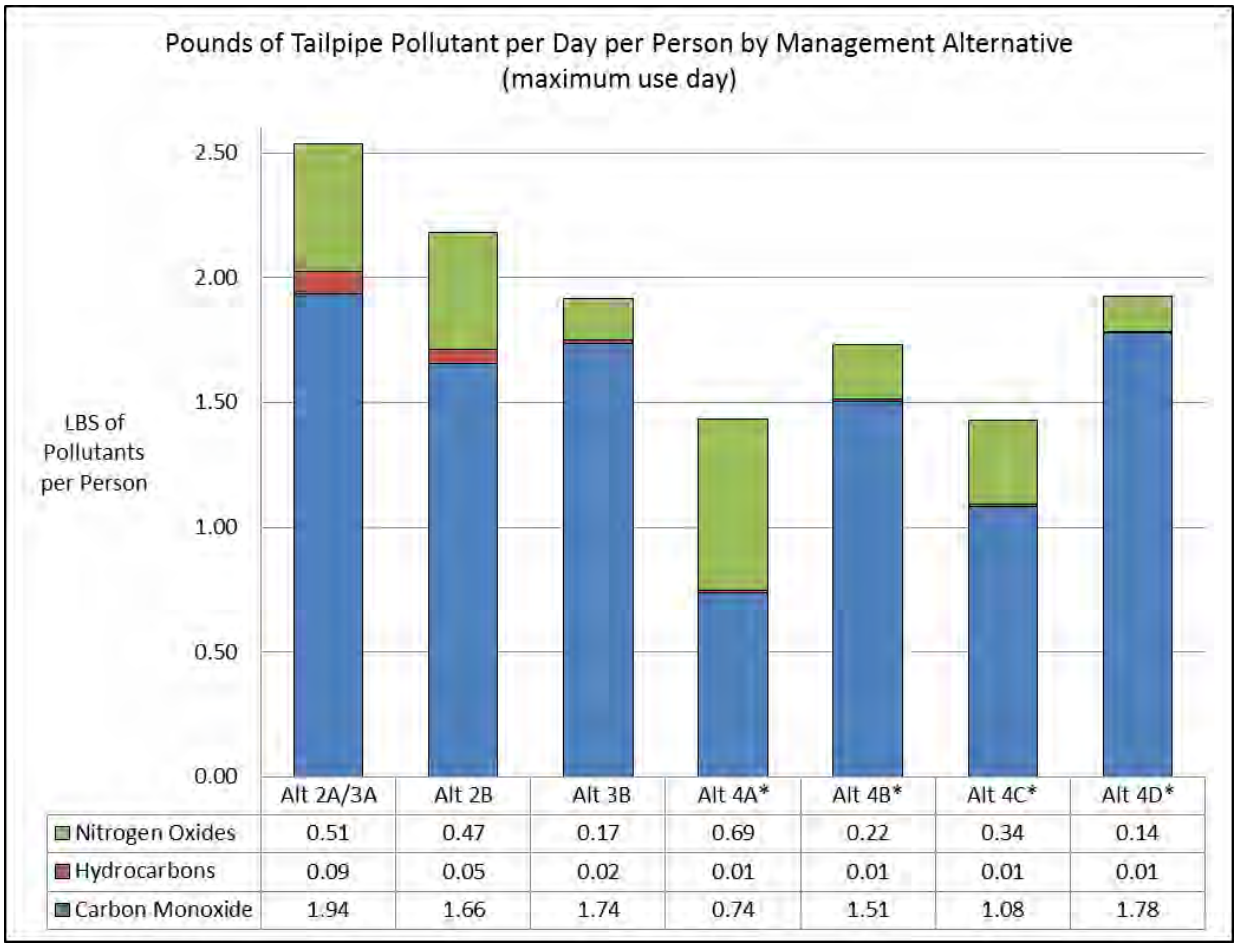
At the SEIS alternative level (on a maximum use day), the NPS concluded that alternatives 4A–4D, each of the possible combinations of snowmobile and snowcoach transportation event scenarios, are as clean as or cleaner than the other two SEIS alternatives (2A and 3B) at the "per person" level for a maximum use day. See table and graph; below (also see Appendix A of the plan/SEIS).

Pounds of Tailpipe Pollutants per Day per Person by Management Alternative (maximum use day)

		Carbon Monoxide		Hydrocarbons		Nitrogen Oxides		
Alternative	Max N People per Day	LBS / Day	LBS / Person	LBS / Day	LBS / Person	LBS / Day	LBS / Person	TOTAL LBS of Pollution per Person
Alt 2A/3A	1705	3,299	1.94	150	0.09	873	0.51	2.54
Alt 2B	1705	2,827	1.66	90	0.05	805	0.47	2.18
Alt 3B	1644	2,852	1.74	28	0.02	272	0.17	1.92
Alt 4A*	1782	1,311	0.74	20	0.01	1,227	0.69	1.44
Alt 4B*	1492	2,247	1.51	13	0.01	326	0.22	1.73
Alt 4C*	2640	2,861	1.08	20	0.01	891	0.34	1.43
Alt 4D*	2944	5,233	1.78	18	0.01	413	0.14	1.92

*NPS Preferred Alternative

When displayed graphically, the data from the table above look like this:



	Alt 2A/3A	Alt 2B	Alt 3B	Alt 4A*	Alt 4B*	Alt 4C*	Alt 4D*
Nitrogen Oxides	0.51	0.47	0.17	0.69	0.22	0.34	0.14
Hydrocarbons	0.09	0.05	0.02	0.01	0.01	0.01	0.01
Carbon Monoxide	1.94	1.66	1.74	0.74	1.51	1.08	1.78

What about air emissions for a 'maximum group size' transportation event?

Since publication of the Final SEIS, a question has been raised asking the NPS to estimate the air quality impacts for a maximum group size transportation event, specifically for:

- Alternative 4A: Ten (10) New BAT snowmobiles to one (1) BAT snowcoach
- Alternative 4C: Ten (10) E-BAT snowmobiles to two (2) E-BAT snowcoaches

Using tailpipe emission factors provided in Ray et al. (2013), emission output (in pounds) were estimated for a representative roundtrip from West Yellowstone to Old Faithful using the number of vehicles per event listed above. See table below for results:

Pounds of Pollutants Per Maximum Use Transportation Event				
Pollutant	Event Type	Alternative 4A Average Use (Ratio of 1 BAT snowcoach : 7 New BAT snowmobiles)	Alternative 4A Maximum Use (Ratio of 1 BAT snowcoach : 10 New BAT snowmobiles)	Alternative 4C Maximum Use (Ratio of 2 E-BAT snowcoaches : 10 E-BAT snowmobiles)
Carbon Monoxide (CO)	Snowmobiles	9.63	13.76	9.18
	Snowcoach(es)	10.08	10.08	29.58
Hydrocarbons (HC)	Snowmobiles	.43	.61	.41
	Snowcoach(es)	.05	.05	.09
Nitrogen Oxides (NOx)	Snowmobiles	9.95	14.21	9.47
	Snowcoach(es)	.73	.73	1.42

These additional analyses of estimated tailpipe emissions illustrate several things:

1) Under alternative 4A average use (ratio of 1 BAT snowcoach to 7 New BAT snowmobiles), a BAT snowcoach transportation event produces more carbon monoxide (CO) than a New BAT snowmobile transportation event. However, a New BAT snowmobile transportation event produces more hydrocarbons (HC) and nitrogen oxides (NOx) than a BAT snowcoach transportation event.
2) Under alternative 4A maximum use (ratio of 1 BAT snowcoach to 10 New BAT snowmobiles), a New BAT snowmobile transportation event produces more CO, HC, and NOx than a BAT snowcoach transportation event.
3) Under alternative 4C maximum use (ratio of 2 E-BAT snowcoaches to 10 E-BAT snowmobiles), a snowcoach transportation event produces more CO than an E-BAT snowmobile transportation event. However, an E-BAT snowmobile transportation event produces more HC and NOx than an E-BAT snowcoach transportation event.
4) Because alternative 4A-D authorizes a wide range of potential oversnow vehicles (different scenarios), both sum numbers of vehicles and emission output of those vehicles (New BAT and E-BAT for snowmobiles, BAT and E-BAT for snowcoaches), one mode of oversnow transportation is not conclusively cleaner than the other when assessed at the "representative round trip" level.

Regarding soundscapes - what metrics did you use?
We chose three measures that are relatively simple and easy to understand and that allow for direct comparisons between snowmobile and snowcoach transportation events:

1) Length of time a discrete transportation event is audible (how long can an average person hear an OSV transportation event?);
2) Noise energy emitted by a snowmobile transportation event compared to the noise energy emitted by a snowcoach transportation event; and
3) Tonal qualities produced by the two types of OSV transportation events (are the noise produced by both types of OSVs similar?).

Regarding soundscapes - what conclusions were you able to draw?

1) The length of time snowmobile and snowcoach transportation events can be heard is similar, differing, on average, by only 15 seconds (approximately 10 percent).
2) A group of ten New BAT snowmobiles, when grouped together with space between vehicles for safety, measure 3 dBA lower than a single BAT snowcoach when each are measured from 50 feet (the noise energy levels would be similar at greater distances).
3) At a distance, and if the vehicles are not visible, trained acousticians as well as people with less experience typically cannot differentiate between snowmobile transportation event noise and noise generated by a snowcoach transportation event.

Regarding the visitor experience – what metrics did you use?
The following metrics were used to assess OSV comparability for visitor experience:

- Experience satisfaction,
- Opportunities to view wildlife and other features of interest,
- Opportunities to experience natural soundscapes,
- Expectations regarding the OSV transportation event experience, and
- Trends in visitor use during the managed use era (2004-2005 season to present).

Regarding the visitor experience – what conclusions were you able to draw?

1) The NPS concluded that snowcoach and snowmobile transportation events are comparable in that both contribute to positive visitor experiences in Yellowstone in winter and that both offer unique ways to see the park.
2) Visitors, regardless of whether they were transported via snowmobile or snowcoach, are highly satisfied with their visit to the park in winter.
3) Given established travel patterns and routes, visitors have comparable opportunities to experience wildlife and natural soundscapes.
4) For visitors traveling via snowmobile, there is likely little expectation to be able to communicate while moving through the park. For snowcoaches, it is possible that visitor expectations are not met given the interior noise levels of snowcoaches and the

difficulty this presents for spoken communication.

5) While some stakeholders have expressed a desire to eliminate snowmobiles as a mode of transportation within Yellowstone, visitor surveys have found strong opposition to such a management action (Borrie et al. 1999). Freimund found that prohibiting snowmobiles in Yellowstone was "opposed" or "strongly opposed" by a majority of respondents. Nearly 70 percent of those respondents *transported by snowcoach* were either neutral or indicated they were opposed to closing the roads to snowmobiles (Freimund et al. 2011).
6) The park supports two different yet appropriate modes of travel within the interior of the park. Given that both forms of transportation have resulted in satisfactory visitor experience, the park's winter use rules and policies are designed to ensure long-term resource protection while providing a choice for opportunities for the visiting public to experience and to be inspired by Yellowstone's unique winter resources and values.

Regarding health and safety – what metrics did you use?
We examined exhaust emission exposure levels and noise emission exposure levels for visitors and park employees based on data from personnel exposure assessments conducted at Yellowstone National Park between 2004 and 2009, and referenced those assessments against existing Occupational Health and Safety Administration (OSHA), National Institute for Occupational Safety and Health (NIOSH), Environmental Protection Agency (EPA), and stricter permissible exposure limit (PEL) standards.

Regarding health and safety – what conclusions were you able to draw?
We found that over the past 8 years, neither snowmobiles nor snowcoaches exposed visitors or employees to exhaust levels that exceeded established Occupational Health and Safety Administration (OSHA), National Institute for Occupational Safety and Health (NIOSH), Environmental Protection Agency (EPA), and stricter permissible exposure limit (PEL) standards. The same was true for noise emissions. Data show that employee and visitor exposure levels are at or below acceptable limits and that mitigation strategies such as ear plugs, kiosk ventilation systems, and other mitigation strategies are available to address these concerns.

What was the final conclusion regarding comparability?
For many of the topics evaluated, the environmental impacts were similar and for some topics the impacts were different. However, in summary, for the five impact topics for which assessing comparability at the person or event levels was possible, data indicate that impacts for both modes of transportation are low and that no one mode of transportation is clearly better, in terms of limiting environmental impacts, or provides for higher quality visitor experiences than the other.

Best Available Technology (BAT) for OSVs

What is Best Available Technology (BAT)?
Best Available Technology (BAT) is literally that - the best technology available for oversnow

vehicle applications in terms of environmental performance. Requiring BAT helps ensure that impacts caused by oversnow vehicles are at the lowest levels possible. Snowmobiles currently used in Yellowstone are already subject to a BAT standard that has been in place since December 2004. Under the preferred alternative in the final plan/SEIS, snowcoaches would be required to meet BAT standards for the first time, and snowmobiles would be required to meet New BAT standards; both *no later than* December 2017. Please note that the proposed rule asks for public comment on moving this implementation date up for snowmobiles (to December 2015) and snowcoaches (to December 2016).

What are the New BAT standards for snowmobiles and where did they come from?
Snowmobiles would be required to meet a 67 dBA noise emission standard at typical cruising speed of 35 mph (SAE J1161) and emit no more than 90 g/kwh of carbon monoxide and 15 g/kwh of hydrocarbons using standard dynamometer testing procedures. The New BAT standard was largely based upon on the cleanest snowmobile in the park today, a Bombardier Recreational Products (BRP) Ski Doo ACE with a 600 cc engine as well as previously produced BAT-compliant snowmobiles such as the Arctic Cat T660.

Are snowmobiles currently exceeding the existing BAT standard?
No, all models currently allowed in the park are in compliance with the existing BAT certification levels. However, we do know that several snowmobile models are close to the upper bounds of Yellowstone's BAT standards, especially for noise emissions, and that cleaner and quieter snowmobile technology exists.

How long does the BAT certification for snowmobiles last?
BAT snowmobiles may be used for up to six model years or 6,000 miles, whichever is later.

What is the BAT standard for snowcoaches and when would it be required?
All snowcoaches would be required to have engine and emission controls that meet EPA Tier 2 standards. This means that most gasoline snowcoaches would be required to be 2007 model year or later – ensuring they are EPA Tier 2 compliant – while larger gasoline snowcoaches would need to be 2008 or newer. Diesel powered snowcoaches would be required to be 2010 model year or newer or be EPA "engine configuration certified" for air emissions. All snowcoaches would also be subject to a 75 dBA noise emission standard (SAE J1161). Appendix B of the plan/SEIS has a full discussion of BAT standards for snowcoaches.

According to the final plan/SEIS, all snowcoaches would need to meet the BAT standard *no later than* the 2017-2018 winter season. Please note that the proposed rule asks for public comment on moving this implementation date up to December 2016 for snowcoaches. Any new snowcoaches coming online in time for the 2014-2015 season would need to meet the BAT standard. Individual snowcoaches may be subject to periodic and random inspections to determine compliance with BAT requirements.

How did you come up with the BAT standards for snowcoaches?
We took a census of the current snowcoach fleet and cross-referenced these data with acoustic monitoring data, emissions data, and other factors to assess what could reasonably be achieved

in terms of air and noise emissions. Unlike snowmobiles, there is no industry that produces snowcoaches and most are highway vehicles converted for oversnow use. For sound emissions, we determined that 75 dBA is an aggressive but realistic standard for snowcoaches. For air emissions, the NPS worked closely with the Environmental Protection Agency (EPA) to settle upon the technical-based Tier 2 standard for tailpipe emissions.

How would you measure the noise output of snowcoaches and snowmobiles*?*
Under the preferred alternative, all OSV noise emissions would be measured and reported following the Society of American Engineers (SAE) J1161 test standards. This test measures noise emissions of an OSV at cruising speed and has been found to be more representative of actual driving practices in Yellowstone than previous testing procedures such as the J192 (full throttle test). Snowmobiles would be tested and certified by the manufacturers. Snowcoaches would be tested in the park by Yellowstone staff.

What is E-BAT and what would it do?
E-BAT (Enhanced-BAT), rewards commercial tour operators for using vehicles that reduce emissions below what is required in the rule. If snowcoach noise emissions are below 71 dBA they would qualify as E-BAT. This means that operators can run two E-BAT compliant snowcoaches as a single transportation event. Please also note that the proposed rule asks for public comment on requiring E-BAT snowcoach transportation events to maintain a seasonal average of 1.5 or less snowcoaches per event over the course of a winter season. If snowmobile noise emissions are 65 dBA or less and emit 60 gram/kw-hr of carbon monoxide, they would qualify as E-BAT meaning their seasonal average group size could increase to 8 snowmobiles per transportation event, provided all snowmobiles in the event are E-BAT compliant. See table below for a summary of BAT and E-BAT requirements for OSVs:

	Snowmobiles		Snowcoaches		By:
	Tailpipe Emissions	Noise Emissions	Tailpipe Emissions	Noise Emissions	
Existing BAT	120 g/kW-HR CO	73 dBA (SAE J192)	None	None	N/A
New BAT	90 g/kW-HR CO	67 dBA (SAE J1161)	Tier 2	75 dBA (SAE J1161)	No later than 12/2017
E-BAT	60 g/kW-HR CO	65 dBA (SAE J1161)	Tier 2	71 dBA (SAE J1161)	Voluntary
SAE J192 is a full throttle test designed to measure the maximum noise output of a snowmobile SAE J1161 is a constant speed cruising test designed to measure noise at cruising speed					

Non-commercially Guided Snowmobile Access Program

What are the highlights of the Non-commercially Guided Snowmobile Access Program?

- The Program would permit authorized parties to enter Yellowstone National Park without the presence of a commercial snowmobile guide, and to instead travel with a

non-commercial guide. The Program would allow up to four non-commercially guided snowmobile transportation events – with up to 5 snowmobiles per event – to enter the park daily, one transportation event per entrance.

- Before entering the park, all non-commercial groups must have a non-commercially guided snowmobile access permit and BAT snowmobiles. Additionally, all snowmobile operators in the group must have successfully completed the Yellowstone Snowmobile Education Certification Program and have a valid driver's license.
- The non-commercial guide is responsible for managing his or her trip and the actions of all trip participants. Each non-commercial guide may lead no more than two trips per winter season, and must be at least 18 years of age by the first day of the trip. Non-commercial guides would be required to possess a non-commercial snowmobile access permit which would be awarded annually through an online lottery system and have successfully completed the Yellowstone Snowmobile Education Certification training course.
- Each non-commercial snowmobile operator in a non-commercially guided snowmobile transportation event would be required to have successfully completed the to-be-developed Yellowstone Snowmobile Education Certification training course. Additionally, each must be in possession of a valid motor vehicle driver's license before entering the park. Trip members without a state-issued driver's license, or those who do not successfully completed the Yellowstone Snowmobile Education Certification training course could participate as a passenger in a non-commercially guided trip but would not be permitted to operate a snowmobile in the park.
- The non-commercially guided snowmobile access program would begin on the first day of the 2014-2015 winter season.
- The non-commercially guided snowmobile access program may be adjusted or terminated based on impacts to park resources and visitor experiences.

Is unguided the same as non-commercially guided?

No. Unguided means exactly that – no guide. Unguided trips would not be permitted in the park. A non-commercial snowmobile guide is someone who has a non-commercial snowmobile access permit as awarded and obtained through the lottery system. Non-commercial snowmobile guides are directly responsible for the actions of their group. Non-commercial guides must have working knowledge of snowmobile safety, general first aid, snowmobile repair, and navigational techniques. As a result, non-commercial guides would be able to help their groups travel safely through the park, would be familiar with daily weather conditions, and would know how to use hand signals to warn group members about wildlife and other road hazards, indicate turns, and indicate when to turn the snowmobile on or off. They would have knowledge of basic first aid and be equipped with similar supplies as a commercial guide. They would employ a single file "follow-the leader" approach and communicate frequently with group members.

What is the Yellowstone Snowmobile Education Certification Program?
The Snowmobile Education Certification Program is a to-be-developed online snowmobile education program that all snowmobile operators participating in a non-commercially guided group must successfully complete before operating a snowmobile in Yellowstone.

How would the Non-commercially Guided Snowmobile Access Program be developed?
The park would work with interested individuals and organizations to develop the non-commercially guided snowmobile access program and supporting Yellowstone Snowmobile Education Certification Program.

Can anyone be a non-commercial guide?
Any member of the public can be a non-commercial guide as long as he or she is at least 18 years of age by the first day of the trip, has working knowledge of snowmobile safety, general first aid, snowmobile repair, and navigational technique, and has led no more than 2 trips throughout the winter season. Non-commercial guides must also be certified under the Yellowstone Snowmobile Education Certification Program and meet all other requirements under the Non-commercially Guided Snowmobile Access Program.

Can commercial guides act as non-commercial guides?
As long as commercial guides complete the requirements of the Non-Commercially Guided Snowmobile Access Program and do not charge fees, they can act as non-commercial guides for their friends and family. These trips would be accounted for under the 4 daily transportation events set aside for non-commercially guided snowmobile groups. More information about the program and requirements for becoming a non-commercial guide is available in Appendix C of the Final plan/SEIS.

How many trips can a non-commercial guide lead per winter season?
Two.

Can I lead an overnight trip into the park under a single non-commercially guided trip?
Yes, but you would need to secure a consecutive-day reservation in the lottery to lead an overnight trip.

I want to utilize this program - what do I need to do?

1. Secure a non-commercially guided access permit through the online lottery.
2. Ensure that you and all of the snowmobile operators in your group bring documentation that you have completed the Yellowstone Snowmobile Education Certification Program and have a valid driver's license.
3. Make sure that all snowmobiles in your group are best available technology (BAT) compliant and that all members of your trip have the necessary safety equipment.
4. Check in with a NPS ranger at the park entrance gate. Rangers would ensure that that all snowmobiles in the group are BAT compliant and that all members possess the necessary safety equipment and documentation (such as access permit, certification of completion for the education course, driver's license, etc.). The NPS ranger would also

run an on-site orientation session for all members of your group to reinforce components of the educational program you've completed and familiarize all members of your group with operating a snowmobile.

Can I bring my own snowmobile into the park?
Yes, as long as your snowmobile is New BAT compliant.

Can I change the dates of my trip?
The NPS will address this issue during development of the Non-commercially Guided Snowmobile Access Program.

What would it cost to take a non-commercially guided snowmobile trip into Yellowstone?
The following are the anticipated costs for a non-commercially guided trip into the park under the preferred alternative.

Component	Cost	Payment Due
Lottery Application Fee	Anticipated to be $10.00/season	At time of application
Lottery Selection Fee	Anticipated to be $10.00/group/trip	At time of lottery award (permit awarded)
Yellowstone Snowmobile Education Certificate Program	Anticipated to be $10.00/snowmobile operator	At time of course initiation
Gate Entrance Fee*	Consistent with standard park entrance fee structure	At the entrance gate

* Gate entrance fee will remain consistent with standard park entrance fee structure, and is subject to change

Sylvan Pass

Would Sylvan Pass be open under the new winter use management framework?
Yes, Sylvan Pass would be open for both motorized and non-motorized oversnow travel from December 22 through March 1 each year, consistent with the Sylvan Pass Working Group Agreement.

During these hard economic times, how can the park justify the cost of keeping Sylvan Pass open?
Our planning process takes into account a number of factors. One of those factors is cost, but other factors include visitor experience, access for gateway communities, and views included in comments received during the NEPA process. We explored action alternatives that would close Sylvan Pass – including Alternative 3 in the plan/SEIS– but ultimately identified a preferred alternative under which Sylvan Pass would remain open.

What about Lynx and Wolverines in Sylvan Pass?
The best available data indicate that the pass is not frequently used by these species, and the potential for impact is minimal. Wolverines feed primarily on winter-killed ungulates (deer, elk, and bison) that are not typically present in the Sylvan Pass area in winter. Because avalanches in the area of Sylvan Pass would occur whether or not OSV use is allowed, the actual impacts from avalanches would be very similar with the Pass open or closed. Overall, avalanche

mitigation at Sylvan Pass, which is required for the Pass to be open, affects less than 0.1 percent of existing wolverine habitat in the park. Additional discussion of the impacts of avalanche control to lynx and wolverine can be found in the plan/SEIS.

Did the park conduct a new Operational Risk Management Assessment (ORMA) for the plan/SEIS?
No, the park believes the two previous ORMAs (2007 and 2010) were sufficient and that based upon the results of those ORMAs, that the procedures are in place to operate Sylvan Pass safely. In addition, in accordance with the Sylvan Pass Working Group Agreement, the Pass is only open when specific safety considerations are met.

What does it cost to operate Sylvan Pass in winter?
Approximately $125,000 per season.

Will the NPS continue to mitigate avalanches in Sylvan Pass?
Yes, likely through a variety of techniques, including helicopter and howitzer-dispensed explosives.

Would administrative travel be allowed over Sylvan Pass if the pass were closed?
No, closed means closed.

Commercial Tour Operators

How many snowmobiles could I have per transportation event?
Up to 10 snowmobiles per event, with a seasonal average of 7, provided your machines meet the New BAT standards. If you meet the voluntary E-BAT standard, your seasonal average can increase to a seasonal average of 8 per event.

Does the final plan/SEIS contain any information regarding the future of concession contracts?
No. Once a final rule and Record of Decision (ROD) have been completed (anticipated by summer 2013), the park will develop the proposed concession contracts and operating plans for guided interpretive oversnow tours.

Will there be a transition period before the preferred alternative is implemented?
Yes. Under the preferred alternative, there would be a one-season transition period (2013-2014 season) to prepare for the new winter use management paradigm. During this period of time, the park would operate under the same terms and conditions as the interim rules. Management by transportation events would start in December 2014.

How many operators per gate would be allocated transportation events?
The park will decide the number of concession contracts per gate when it develops the concession contracting strategy, anticipated to occur in summer/fall 2013. An operator may apply for one or more contracts.

Would this affect me differently if I hold a commercial use authorization or a concessions contract?
Yes. Currently, snowmobiles operators are authorized under commercial use authorizations (CUAs), which do not have a preferential right of renewal. Snowcoach operators are authorized under concession contracts. These contracts may have a preferential right of renewal. The park anticipates authorizing all oversnow vehicle use (except for non-commercially guided trips) by concession contract in the future.

Can I trade my transportation events with other operators?
Yes, as long as they operate out of the same entrance you do. You would not be allowed to trade transportation events between entrances.

If weather conditions are poor, can I use unused transportation events later?
No. There are a maximum of 110 transportation events authorized daily. Any transportation events not used cannot be transferred to a later date.

What happens if I exceed the seasonal average of 7 snowmobiles per transportation event?
You would receive an unsatisfactory overall rating. The consequences of an unsatisfactory rating range from loss of preferential right of renewal to termination of the contract.

If I send in a group of 3 snowmobiles, does that mean I used an entire 'transportation event'?
Yes. There is no minimum event size.

Would a zero oversnow vehicle (OSV) day count toward my seasonal average?
Yes. If you did not run any tours on a given day that would allow you to run larger group sizes later in the season provided your seasonal event size average is 7 for snowmobile commercial tours under the New BAT standard (8 under the E-BAT standard).

How are transportation events allocated between gates?
Commercial transportation events have been allocated by gate according to historic allocation patterns.

What about mandating the use of E-10 fuels?
Research on OSVs has indicated that E-10 would only benefit OSVs that do not use modern fuel injection engines. All carbureted OSVs (presently only Bombardiers) would see benefits, but few if any of the other vehicles would, including snowmobiles. Further, all carbureted motors would be prohibited under snowcoach BAT standards to be fully adopted *no later than* December 2017. Since all modern engines fuel inputs are oxygen sensor controlled, when the computer detects extra oxygen in the exhaust (supplied by E-10 fuel), the computer injects more fuel to bring the fuel trim back to stoichiometry, negating the attempt to lean out the engine. E-10 may also influence the mix of hydrocarbons that would be emitted, most notably a relatively large increase in aldehydes, primarily acetaldehyde and some formaldehyde.

Adaptive Management

What is adaptive management?
Adaptive management is a tool and a process that allows us to identify uncertainties and then monitor and learn from the actual impacts of OSV use on the ecosystem. As the new management framework called for under the preferred alternative is implemented, if monitoring shows that the impacts to the park are not as we expected them to be, adaptive management allows us to learn from and modify or adjust management decisions.

What are the goals of the adaptive management program?

1. To ensure that the impacts of oversnow vehicles (OSVs) use remain within the range predicted under the preferred alternative in this plan/SEIS;
2. To gather additional data regarding the comparability of impacts from a group of snowmobiles versus a snowcoach; and
3. To reduce impacts on park resources after implementation of the selected alternative by gathering additional data regarding the overall impacts of winter use and using those data to guide future management decisions.

How would adaptive management change winter use in the future?
We may find that we should change the way we manage oversnow vehicle use in the park. Those changes could include, for example, requiring new sound or air emission technologies, increasing or decreasing the numbers of daily vehicles per transportation event, decreasing the number of transportation events allowed, establishing timed-entry requirements, adjusting speed limits, or closing or opening certain OSV areas, routes, or entrances.

What is the initial approach to adaptive management?
Under the preferred alternative, we would engage with stakeholders in the summer/fall of 2013 to determine which impacts we should closely evaluate. We would then work closely with stakeholders over the following two years to develop an adaptive management strategy for winter use.

How can you ensure that the adaptive management process would be beneficial in managing winter use?
Adaptive management is a stakeholder driven process that provides time for us to engage with our stakeholders, identify key areas for further study, and gather baseline data to better understand how the final management plan would affect the park. Ultimately, our goal in adaptive management is to provide additional data regarding how we can minimize impacts to the park while allowing for an appropriate level of winter use.