

**COMMENT DOCUMENT FOR DRAFT WINTER USE PLAN/
ENVIRONMENTAL IMPACT STATEMENT
YELLOWSTONE NATIONAL PARK**

Prepared for

**Board of County Commissioners
Park County, Wyoming**

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INTRODUCTION

Park County appreciates the opportunity to work with the National Park Service (NPS) on developing a Winter Use Plan for Yellowstone National Park (YNP). Park County and Yellowstone are bound together in a manner that requires close communication and cooperation. Given the importance of developing a Winter Use Plan that provides Park visitors, local communities, and other stakeholders assurance that winter use management will remain stable and predictable over the long-term, Park County, as a formally recognized Cooperating Agency, is intent on being a fully engaged participant and stakeholder in this process.

Park County encourages the NPS to continue to look at innovative ways to manage oversnow vehicle (OSV) use in YNP and suggest that as technology advances, considerations should be implemented for expanded use and the use of adaptive management to modify the selected alternative. We support a final alternative that keeps all four entrances open, allows both snowcoach and snowmobile access, and accommodates non-commercially guided access. We believe that the range of action alternatives provided in the Draft Winter Use Plan/Environmental Impact Statement (DEIS) contain several innovative elements that, when combined, will provide an alternative that is protective of the Parks' resources and maximizes recreational winter-use opportunities. Accordingly, Park County's detailed comments are specific to those areas most likely to adversely impact businesses and communities in Park County and Wyoming. It is of great importance that the East Entrance remains open for access as this will benefit tourism and provide for job development. Park County's stance in regards to alternatives and key issues presented in the DEIS are summarized below. We respectfully request that our comments be addressed and incorporated into the Final Winter Use Plan/Environmental Impact Statement (FEIS).

COMMENTS ON DEIS ALTERNATIVES

Park County believes that approximately 50 years of OSV use in YNP has not damaged the Park but has allowed for users to enjoy the unique aspects and experience of winter conditions. It is thought that the science presented in the impacts analysis of the DEIS does not show that resource areas in the Park were impacted prior to the implementation of restrictions. We believe that according to CEQ Sec. 1502.14 (a) stating that the decision-maker shall: (a) "rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated" and (c) "Include reasonable alternatives not within the jurisdiction of the lead agency" that the NPS erred in not analyzing an alternative that considers the higher use OSV numbers from the late 1990s and early 2000s as a baseline.

In addition, we believe the baseline data for the East Entrance is suspect. There are reports that the East Entrance was often unmanned and consequently had under-reported baseline numbers for the time in question. The East Entrance demand for OSV use in the Park shows an increase up to the 2002 December to March data set. Support is provided by National Visitor Use Monitoring data for forest activity

participation on the adjacent Shoshone Forest, with results showing that snowmobile travel increased from six percent in 2003 to nine percent in 2009. Therefore, we would like to see the NPS apply a correction factor to the East Entrance daily snowmobile numbers. We also request that the NPS continue to make safety and access improvements on Sylvan Pass a priority per the Sylvan Pass Agreement and that the East Entrance remain open to through travel for OSVs.

Park County advocates that the NPS select elements of the action alternatives that best support the purpose and need, and that this can be accomplished by allowing visitors to experience the special winter attributes of the Park by maximizing OSV opportunities. We believe that our comments, coupled with previous Finding of No Significant Impact (FONSI) for previous winter use compels the NPS to “modify alternatives” at the least, and perhaps “develop and evaluate alternatives not previously given serious consideration by the agency” as supported by CEQ 1503.4. Park County supports elements of action Alternatives 2, 3, 6, and 7 and it is thought that a combination of these alternatives will best meet the intended objectives of the Winter Use Plan.

We propose that traffic, air, and noise related issues can be reduced at all entrances and under all alternatives by allowing groups to pre-register, especially large commercially guided users, and that this would decrease problems associated with starting and stopping.

Given the 20-year life of the Winter Use Plan it is imperative that the NPS include adaptive management in the alternative selected. As technology improves and as visitor desires vary, it is important to adjust limits in response to changing conditions. If advances in technology produces OSVs with a 50 percent reduction in noise and air pollution compared to today’s technology, daily and/or seasonal limits should be adjusted accordingly.

Alternative 1

Park County is opposed to the selection of Alternative 1 because this alternative would essentially eliminate reasonable access for the public to enjoy YNP and would not meet the purpose and need for action. In addition, restricting OSV use would have a serious economic impact on the regional winter tourism industry over the 20-year planning period.

Alternative 2

Alternative 2 would continue winter use management according to provisions in the Temporary Winter Use Plan and Environmental Assessment (EA) (NPS 2009). Park County is supportive of management options in this alternative such as continued snowmobile use and keeping the East Entrance open; yet we do not support the requirement that all visitors use commercial guides.

As duly elected local officials, we strongly oppose the notion of legislating or mandating agencies to remove personal responsibility from local residents. We believe that user responsibility has been proven by years of non-commercial snowmobile use dating back to the 1960s and early 1970s. Non-commercial access hasn’t been allowed or even tried on an experimental basis since implementation of managed

winter use in 2003, so there is no directly comparable baseline to conclude that it will cause additional impacts. Please modify the selected alternative to include up to 25 percent non-commercial snowmobile use. If this modification is not provided, please show data that indicates that this percent of non-commercial use would cause additional impacts to YNP resources.

Alternative 3

Park County supports elements of Alternative 3 and the return of OSV use to 2004 plan limits. We support these limits as they are more representative of the historic baseline, and in consideration with Best Available Technology (BAT) and guide requirements, believe predicted impacts are overstated in other action alternatives. In addition, we request that daily snowmobile entry limits for the East Entrance be returned to 40 as stated in the in the preferred alternative of the 2004 plan and that these limits include 25 percent non-commercial use.

Alternative 4

Alternative 4 proposes closing the East Entrance Road and Sylvan Pass to through motorized traffic, virtually eliminating motorized access or OSV use from the East Entrance to other destination points within the Park, and conversely, from destination points within the Park out over Sylvan Pass to the East Entrance. This alternative is strongly opposed by residents and business entities in the gateway community of Cody, in Park County, and the State of Wyoming and is in conflict with the Sylvan Pass Agreement. This area is the closest access to the Park for visitors traveling from the mid-west and is popular with both snowmobilers and skiers and the loss of access would not meet the following stated (DEIS pg. xix and xxi) objectives: (1) provide access for winter opportunities in the Park that are appropriate and universally accessible and; (2) improve coordination and communication regarding winter use management with Park partners, gateway communities, and other stakeholders.

While the NPS acknowledges the adverse economic impact closure of the East Entrance will have on local Park County businesses, we still believe the economic analysis is flawed and that economic impacts are not accurately disclosed. As stated above, it is thought that the baseline data for the East Entrance should incorporate snowmobile use trends prior to the implementation of restrictions. We are opposed to the NPS using low visitation as a justification for closing the East Entrance without giving any consideration to how their own restrictions may be affecting visitation numbers. It is thought that inconsistent NPS management actions cause visitors to be uncertain if there will be access to the Park and this contributes substantially to low-visitation at the East Entrance and the associated adverse economic impacts on local Park County businesses.

Alternative 5

It is recognized that snowcoaches provide an important choice for winter access to YNP, but snowmobiles clearly remain the most popular means for the public to access the Park. Restricting the use of snowmobiles under Alternative 5 would limit the opportunity for visitors to experience and be inspired by

Yellowstone's unique winter resources and values and would not meet the stated purpose and need. Selection of this alternative would also cause serious economic impact to the regional winter tourism industry over the 20-year planning period.

Alternative 6

We request that the East Entrance allocation be pursuant to the allocation percent of Alternative 7 and be set at 36/day with 25 percent non-commercial use. Since the NPS has acknowledged that their science indicates a maximum comfortable level of use before impairment is 540/day, the daily entry limits for the other action alternatives appear arbitrary and capricious and indicate that there is no reason to restrict the public's use at a lesser number.

If variable use levels are to be set before the start of the season it is unclear how a loss of days due to weather, lack of snow, or safety would be recaptured. We believe that the management proposed for this alternative would turn out to be an administrative and enforcement problem and request that variable use levels and entrance allocations be dropped. Variable use would make it difficult for taxpayers to plan trips in advance and non-commercially guided users would find it difficult to find information about use days and permits; essentially limiting who could experience the Park. There is also concern that this flex provision would harm long term businesses due to inconsistent visitor levels and concessionaires would not be able to adequately plan. Further, the economic impact due to a potential loss of days is not sufficiently analyzed. Please include mitigations in the FEIS that address this concern, such as extending the winter use season or by adding additional flexibility to entrance allocations.

Alternative 7

The aforementioned variable use comments for Alternative 6 also apply for planned variable use under Alternative 7. Additionally, there is concern that the Preferred Alternative appears to be predetermined and that there are shortcomings with the NEPA process. For instance, while the DEIS is being circulated for comment, there is a new proposed rule for Winter Use in YNP also being circulated for comment. While the stated purpose of the proposed rule is to streamline the acceptance of a new Winter Use Plan for the 2011/2012 winter season, it appears pre-decisional and gives the impression that Alternative 7 is being selected before comments on the DEIS are even received.

COMMENTS ON KEY ISSUES

The key issues of concern to Park County for winter use management include proposed management direction for snowmobiles, NPS commercial guide requirements, the purported effects of OSV use on Park wildlife, and NEPA considerations. Our major concerns with these issues are addressed in the following sections.

Wildlife

Park County has a great appreciation for wildlife species and habitats in YNP. Winter environs in YNP provide unique habitat niches for species such as elk, bison, Canada lynx, gray wolf, wolverine, bald eagle, and trumpeter swan. While it is agreed that excessive winter motorized use can have detrimental effects to wildlife, Park County has reviewed relevant literature on OSV travel in wildlife habitats and is confident that an appropriate combination of snowcoaches and snowmobiles (guided and non-commercial) is compatible with wildlife in YNP. Research conducted by Borkowski et al. (2006) and White et al. (2008) concluded the same, finding that bison, elk, trumpeter swan, and bald eagles are affected little to none by OSV use.

The Purpose and Need (DEIS pg. 2) states that an objective for taking action is to “manage winter use so that it does not disrupt the winter wildlife ecology, including sensitive species.” The wildlife literature (Toweill and Thomas 2002) generally concludes that human-caused disturbance on the winter range is detrimental to ungulates and therefore should be avoided. Such references are generally pertinent to hunted populations, and may have little application to non-hunted populations where animal tolerance to human presence is high.

The DEIS assumes that since the protection of wildlife is an emotional public issue, it automatically warrants inclusion as a selection criteria. Park County questions that assumption for several reasons: (1) animals in the YNP exhibit extraordinary tolerance to human presence; (2) documented OSV use has not resulted in a shift in animal use of traditional ranges; (3) responses of monitored animals to OSV use in the YNP is generally “subtle”, i.e. the monitored animal may exhibit “increased alertness” but seldom if ever “flees” from the OSV; and (4) changes in elk and bison populations over the last 40 years can statistically be explained by changes in post-fire vegetation production, winter severity, bison control actions, or wolf predation. Conversely, however, it would be impossible to credibly attribute changes in animal populations to OSV use.

While Park County acknowledge the DEIS’s need to address social and economic factors related to OSV use, the DEIS’s focus upon wildlife is not consistent with the science. Furthermore, Park County suggests the fixation with wildlife panders to the public’s emotional need to protect wildlife, but fails to provide them with the objective scientific factors pertinent to the Park setting. The following discusses the science and YNP philosophy measures that support this premise.

Behavioral Responses of Wildlife to OSV Use in Yellowstone

The paper *Behavioral Responses of Wildlife to Snowmobiles and Coaches in Yellowstone* by White et al. (2006) discusses behavioral responses of wildlife to OSV use in YNP. The authors’ conclusions include:

- OSVs illicit responses from wildlife that may include anything from increased alertness to moving away from the disturbance;

- The degree of and type of response varies by species, but all species sampled (elk, bison, coyotes, bald eagles, etc.) showed some level of response to OSV;
- Animals have apparently habituated to OSVs to the extent that there is no evidence of those animals abandoning traditional preferred winter habitats; and
- Based on a multitude of scientific papers, such responses to OSVs during the winter, even when no abandonment of traditional ranges is evident, is likely to cause some measurable fitness effects.

The DEIS provides additional support for the contention advanced by White et al. (2006):

Studies suggest that most of the individual wildlife observed in Yellowstone, including bison, elk, trumpeter swans, bald eagles, and coyotes, respond to OSV activities by reacting to the potential threat, generally observed as vigilant behavior by the animal (ears up, head raised, ceasing a previous activity such as grazing, without additional alert behavior) (McClure et al. 2009; White et al. 2008). If the animal perceives the disturbance as a more serious threat it may demonstrate an active response including travel away from the threat (walking), flight (running), or defense/attack directed at the threat (charging) (Borkowski et al. 2006; White et al. 2006; White et al. 2008). In most cases, more active responses require greater energy, reducing the amount of energy available to an animal for winter survival (Parker et al. 1984; Cassirer et al. 1992).

Collectively, all species observed in Yellowstone exhibited non-travel responses (no response, look resume, alert response) to human activities at least 90% of the time. All species demonstrated active responses (travel, flight, defensive) less than 10% of the time. Defensive responses (charging) to OSV-related human activities were rare (Borkowski et al. 2006; McClure et al. 2009; White et al. 2008).

White et al. (2008) assessed the relationship between wildlife behavioral responses and factors including wildlife group size or distance from road, interaction time, number of snowmobiles or snowcoaches, type of habitat, and cumulative winter OSV traffic. For bison, elk, swans, and bald eagles, odds of a movement response (travel, flight) decreased with increasing distance of the animals from the road. As the number of individual animals in a group increased, the odds of a movement response generally decreased for bison, swans and elk in thermal habitat, whereas the odds of a movement response increased with larger group size for elk in wetland or unburned forest habitat. The odds of a movement response by wildlife increased with larger OSV group size, longer interaction time, direct approaches by OSV users, or specific habitat species combinations (White et al. 2008).

The authors do not explicitly define measurable fitness effects, but from the literature cited (Cassirer et al. 1992), it is inferred that responses to OSVs could result in reduced winter survival, reduced reproductive vigor, and potential declines in population. Because no wintering populations showed any indication of abandoning traditional winter ranges, Park County assumes that any such potential reduction in wintering population would be very slight and probably insignificant when compared to other variables such as predation, winter severity, or forage production. Nonetheless, because of this potential loss of measurable

fitness, the authors are recommending among other things that OSV levels be managed at or below levels observed during the study.

Wildlife Management in Non-Park versus Park Settings

In a non-park setting the findings of White et al. (2006) would be cause for alarm. In National Forests and Bureau of Land Management Lands (BLM) adjacent to YNP, lands are generally open to hunting. Carrying capacities are generally identified (by trend, population, or vegetative condition). Ungulate population goals are generally identified (often by hunting district or herd unit). When carrying capacities decline due to lack of fires or other factors, there are usually measures identified at the State or National Forest level to correct those problems. Hunting harvest may be adjusted up or down accordingly.

Predators may be managed (via hunting or other control measures) to assure that ungulate levels remain at or near carrying capacity without major conflicts with hunters. Lastly, the relationship between ungulate numbers and hunters and hunting-generated economic revenue are commonly considered when making habitat management or animal harvest decisions. Consequently, in a National Forest or BLM setting, human-caused winter disturbance that resulted in even a slight potential loss in measurable fitness, to the extent that populations might drop below carrying capacity or adversely affect hunting or wildlife viewing opportunities, would be viewed in a negative light.

Unlike non-park public lands, YNP has taken a radically different approach to managing ungulates. Up until the early 1960's, ungulate management was not that different from National Forests and BLM lands, i.e., ungulate harvest was an integral part of management. For instance, in 1963, the Leopold Report (Leopold et al. 1963) concluded that:

Good park management requires that ungulate populations be reduced to the level that the range will carry in good health and without impairment to the soil, the vegetation, or the habitats of other animals... (Ungulate population) control... through natural predation should be encouraged... Where other methods of control (sport hunting) are inapplicable or impractical, excess park ungulates must be removed by killing...

The Leopold Report states that in 1961-1962, the YNP's carrying capacity was estimated at 5,000 elk, the current population was estimated at 10,000 elk, and 4,283 elk were killed by shooting.

Such population control measures were generally abandoned by the Park after 1967. As a result, elk populations increased substantially and consistently, with a high reached in the mid-1990s of 19,045 counted aerially (MFWP 2002), a level 4 times higher than the 1962-estimated carrying capacity. Populations declined substantially after severe winters in 1989 (a decline exacerbated by the wildfires of 1988) and 1997 (MFWP 2002).

Interestingly, the issue of carrying capacity becomes less and less of an issue in YNP dialogue. If carrying capacity was estimated at 5,000 elk in 1962, it begs the question how YNP could allow the population to increase to over 19,000 by the 1990s. Nonetheless, during this period, YNP remained relatively silent regarding the issue of excessive elk populations.

Implications of Excessive Elk Populations

As one example of how YNP has ignored the issue of carrying capacity and excessive elk populations, numerous researchers (Kay 1993) concluded that aspen had declined substantially as a result of overgrazing by elk. YNP's position on aspen declines, however, generally favored the theory that those declines were attributable to changes in climate (Despain 1987).

After wolves were reintroduced in 1994-1995, elk populations decreased at the rate of ~8 percent per year from pre-reintroduction levels of 15,000–20,000 elk to 4,635 elk by 2010 (National Park Service 2011a). The wolf population has fluctuated from 21 at the year of reintroduction to a high of 174 in 2003, to 97 in 2010 (National Park Service 2011b). While the elk decline has generally been attributed primarily to wolf predation, other factors such as drought may have contributed to the decline (Vucetich et al. 2005). Interestingly, now that elk populations have declined to a point a little more in line with carrying capacity, YNP vegetative recovery has been substantial (Schullery) as manifested by increases in cottonwood regeneration (Larsen and Ripple 2003), beaver colonies, and aspen regeneration.

Changes in Other YNP Wildlife Populations

Bison in YNP have also suffered population shifts in recent decades similar to elk. Populations increased substantially in recent decades after culling was eliminated in 1967 (Greater Yellowstone Science). In 1966 the bison population was recorded at 226 but had grown to over 2,000 by 1984-1985, and to nearly 4,000 by 1994-1995 (Greater Yellowstone Science). In an effort to control the spread of brucellosis to Montana cattle herds, 1084 were lethally removed in 1997, with lesser harvests conducted in other years. In spite of those control actions, the bison herd reached a high level of ~4,900 in 1995-1996.

Wolves view coyotes as competing predators and thus will aggressively kill them when the opportunity presents itself. Robbins (1996) reported that prior to wolf re-introduction; the YNP had “one of the densest and most stable coyote populations in the country because of the lack of human impacts.” Since re-introduction, however, “50% of the pre-wolf population of coyotes has been killed” (Robbins 1996). These findings suggest that although coyote populations have been substantially reduced, carrion available to a multitude of scavengers from wolf kills has indirectly benefited many species including ravens, foxes, bald eagles and golden eagles.

Wildlife Population Trends and OSV Use – Bison, Elk, and Wolves

As discussed above, elk, bison, coyote, and wolf populations have fluctuated significantly from 1995–2010 (Figure 1). During the same time period, snowmobile visits by season and entrance has also been variable (Figure 2).

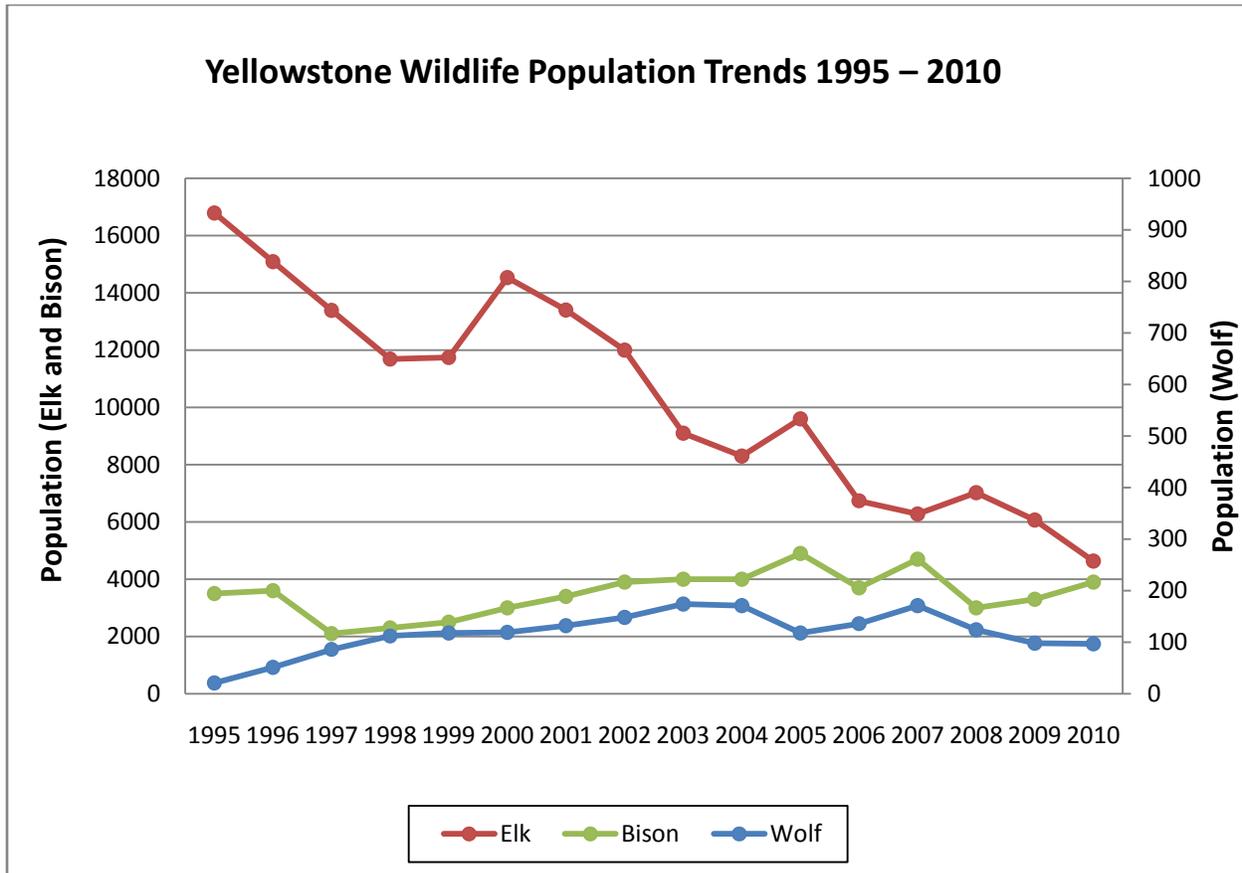


Figure 1 Population trends for bison, elk, and wolf 1995-2010

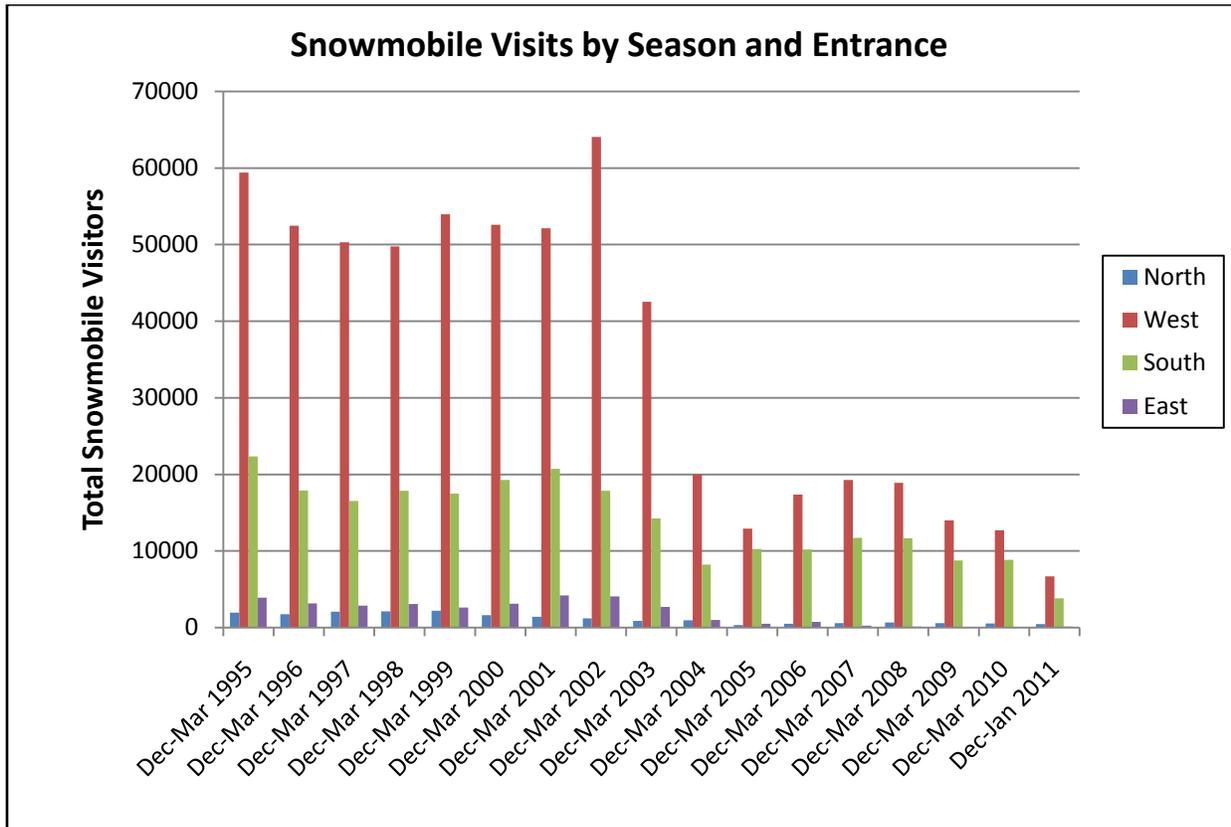


Figure 2 Snowmobile visits by season and entrance

Yet, the fluctuation in populations is not attributed to OSV use (Figure 3). Since wildlife are not hunted in YNP, they exhibit extraordinary (compared to hunted populations) indifference to humans. In trying to identify, using the most rigorous of research, those variables most responsible for population changes over the last decade including winter weather, precipitation, forage availability from wildfires, wolf re-introduction, etc., population shifts from OSV use would be statistically detectable.

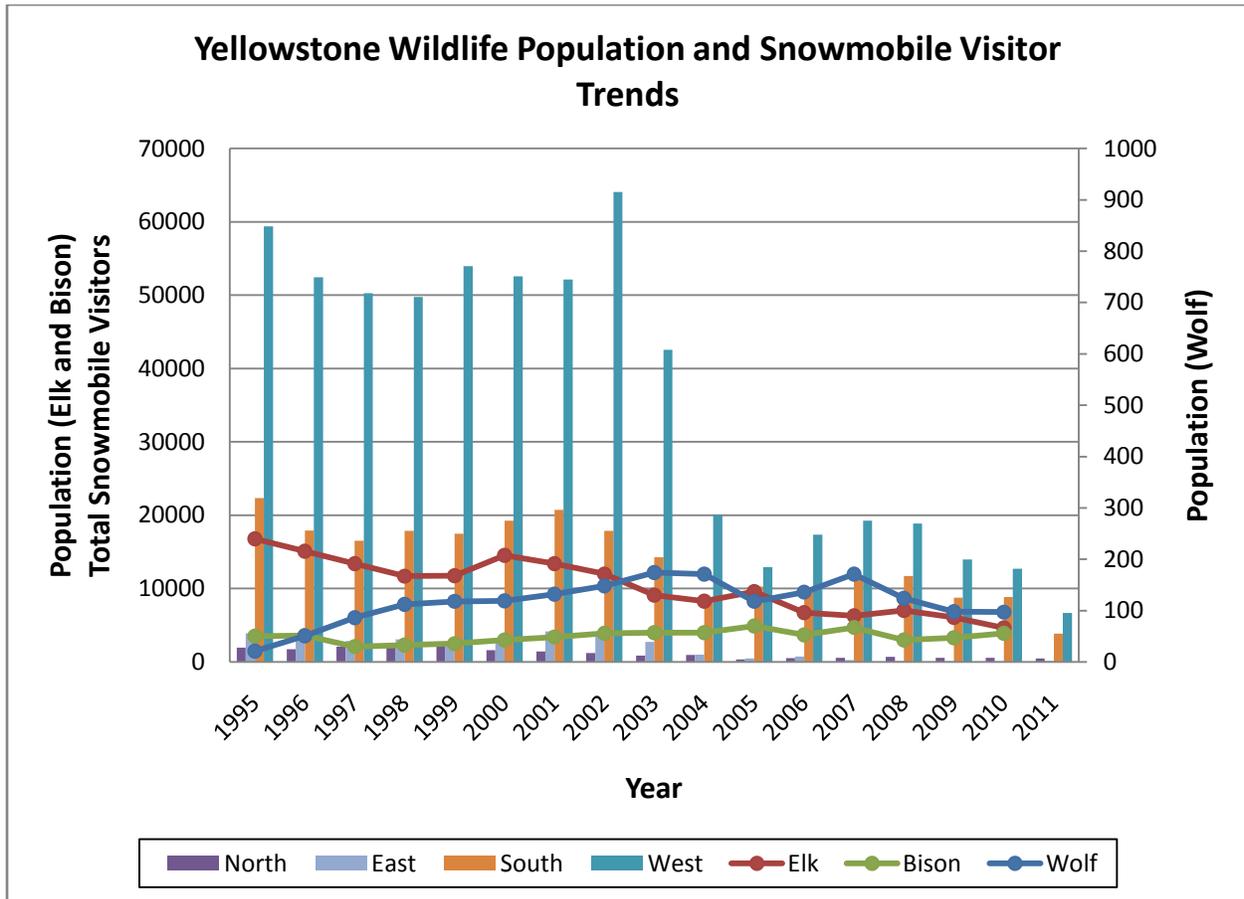


Figure 3 Yellowstone wildlife population and snowmobile visitor trends

As noted in the DEIS regarding bison, OSV use has not affected the species. In fact, as OSV use increased so did the bison population (pg. 100).

After cessation of culling in the park’s interior in 1968, the bison population generally increased, with minor fluctuations, to a high of 5,000 animals in winter 2005. Most of this increase in population coincided with a substantial increase in OSV recreation, with winter visitors increasing from 5,000 to nearly 100,000 people during this same period (Gates et al. 2005). The number of OSV riders in the west-central region of the park, where bison are common also increased during this time. Thus, in general the number of bison-OSV interactions has increased steadily since the introduction of OSVs in the park, despite high levels of OSVs pre-management, and there appears to be few population-level impacts on bison. In recent years, use numbers of OSVs have decreased, and since 2004, the number of winter visitors has fallen to between 50,000 and 60,000 people (NPS 2008a).

While not as dramatic as bison, the effect of OSV use in YNP on elk has not caused the species to decline during the period 1968–2004 (DEIS pg. 104).

Elk in the non-migratory Madison headwaters herd are exposed to high levels of OSV use, but there is no indication of effects on the population. From 1968 to 2004, when winter visitors to the

park expanded from just 5,000 to over 100,000, the Madison headwaters elk herd population remained around 500 animals (Garrott et al. 2009). Before the introduction of wolves to the park, female elk had a 90% annual survival rate, with healthy recruitment and high birth and survival rates of calves (Garrott et al. 2003). Overall, elk range has remained stable throughout periods of OSV use in the park, and there is no evidence that elk populations and movements are affected by winter use.

Impacts of OSV Use – Canada Lynx and Wolverine

Unfortunately, data and research on the effects of OSV use on Canada lynx and wolverine are not available given the elusiveness of the two species and the fact that both occur in low densities throughout their range. Canada lynx do not appear to be affected by OSV usage. Bunnell et al. (2006) did find that there is a strong correlation between coyote movements and OSV trails. Coyotes can compete for prey, but do not have a preference for snowshoe hares as do Canada lynx. And, as noted in the DEIS (pg. 107) lynx show a greater preference for higher elevations than coyotes. This also indicates that they prefer areas of the Park not subject to winter use, because most OSV routes, except the Sylvan Pass area, occur at lower elevations in the park. Wolverines are quite sensitive to human disturbance. However, their preference for high elevation sites and the ability to travel long distances can limit the effects of OSV use on the species.

Wildlife Summary

Park County is sensitive to the importance of YNP to wildlife. As stewards of the land, Park County is dedicated to both wildlife protection and responsible recreation opportunities. Given the current research available, Park County is confident that an OSV use level of 720/day would not impact wildlife species in YNP. History has shown that a high level of OSV use does not affect bison or elk. As for Canada lynx and wolverine, Park County recognizes that the two species are more sensitive to human disturbance than other types of wildlife in YNP. However, the only area of conflict for Canada lynx and wolverines is Sylvan Pass. Park County believes that through appropriate wildlife sensitive training for both guided and non-commercial OSV users (training would be mandatory for all OSV users regardless if they will recreate at Sylvan Pass or elsewhere), adverse impacts to Canada lynx and wolverine would be adequately mitigated.

Air Quality

It is clear from the monitoring results shown in Tables 41 through 47 in Chapter 4 of the DEIS that the number of snowmobiles allowed in the Park under any of the alternatives “would be less than 50% of the difference between background levels and the National Ambient Air Quality Standards (NAAQS) (negligible to minor impacts).” After evaluating these results, Park County is confident that the proposed OSV use under any of the action alternatives would only have minor impacts to air quality in YNP. There have also been discussions with the State of Wyoming in regards to conducting an additional air quality study to aid with allowing an increase in OSV numbers, particularly non-commercially guided use. It

could prove beneficial to use some proceeds of the non-commercial snowmobiler fees to help fund the study.

The air modeling predictions are for locations that see significantly more snowmobile and snowcoach traffic than does the East Entrance area. Therefore, it is clear that the number of snowmobiles allowed in through the East Entrance could be increased to significantly more than 20 without causing problems with air quality.

Based on the results of air modeling, there is no significant difference in air quality impacts between Alternative 6 and Alternative 7. Modeling results presented in Tables 41 through 48 consistently show that air emissions from OSV for these two alternatives are orders of magnitude below annual emissions totals indicating that OSV contribute a relatively small amount of emissions. Therefore, from an air quality standpoint, there is no justification for limiting the total maximum number of snowmobiles allowed daily to 330 (Alternative 7) versus 540 (Alternative 6) or some other number higher than 540.

The DEIS discusses (pg. 255) impacts from OSV use in neighboring national forests including portions of the Gallatin and Custer National Forests northwest, north, and northeast of the Park. Given that the prevailing airflow and wind direction is from the west/southwest, more attention should be paid to OSV use in the Ashton/Island Park District of the Caribou-Targhee National Forest than the other two areas. Please correct this in the FEIS.

The condition that snowmobiles must enter the Park by 10:30 a.m. results in snowmobiles being clustered at entry gates, particularly at the west gate. Such clustering must lead to worst case scenarios at these locations with respect to air quality. If the entry times were spread out more evenly across the morning or day, it would reduce peak emissions at these locations.

Air monitoring stations in the park consist of Old Faithful and the West Entrance as well as just outside the Park in West Yellowstone. Other air quality stations are located at the Tower Ranger Station and at Yellowstone Lake. No stations are located at or near the East Entrance to the park. An air quality station should be established at or near the East Entrance to the park.

The DEIS states (pg. 118), “Annual ambient SO₂ concentrations have decreased by more than 70% since 1980 (EPA 2010h).” Please clarify whether this is at park monitors or across the U.S. in general.

Soundscape

The DEIS (pg. 130) discusses that natural sounds are necessary for ecological functioning in the Park. The Park Service should recognize that the non-natural sounds from wheeled vehicles (in any season) and OSV in the winter are necessary for most visitors to access the Park. The NPS should modify its soundscape analysis in the FEIS so that affects from sound are not considered “major” when they arise from routine use patterns along established travel corridors. The baseline for travel corridors should be a standard reflective of typical travel corridors in national parks where sounds from vehicles will of necessity, under the Organic Act, and in Yellowstone under the Yellowstone Park Act, always be a part of

the soundscape. Please define the width of the travel corridor; in other words, how far from the roadway is the boundary between the travel corridor and the backcountry in order to clarify these results.

On page C-9 in Appendix C, the NPS explains the scientific basis for translating metric sound values into plausible levels of impact. “For this DEIS, a L_{eq} of 35dB has been selected as the criterion corresponding to a major impact to travel corridor acoustical environments.” The documents goes on to explain that this level has been designated as a pertinent sound level criterion for quiet environments such as indoor spaces such as libraries, bedrooms, empty classrooms, etc. It does not seem reasonable to Park County that travel corridors, even in a National Park are comparable to such environments. Is the NPS going to use this criterion when it evaluates summer travel corridors in future management plans? If not, it is not consistent to use this criterion only for analysis of travel corridors in the winter. It is our contention that 35dB is not an appropriate level for assigning a major impact to soundscapes along travel corridors. This level seems more appropriate for appreciable distances (such as $> \frac{1}{2}$ mile) from major roads/groomed trails. Moreover, the DEIS specifically states on page C-9 that Audible L_{eq} will not vary among alternatives if the traffic mix does not vary, even if overall traffic levels change. This statement argues against using L_{eq} as the criterion upon which to evaluate noise levels associated with the various alternatives.

The DEIS (pg. 266) states that “Peak 4 results are influenced mainly by the loudest vehicle in use, rather than the total traffic.” The document should state that this is primarily associated with snowcoaches, not snowmobiles.

In the description of impacts for Alternatives 6 and 7, the text states (pg. 268) that Alternative 6 would have long-term major adverse impacts on soundscapes in the travel corridors while Alternative 7 would have long-term moderate adverse impacts on soundscapes in the travel corridors. A closer look at the data reveals that the difference between major and moderate for the two alternatives is a difference between 8.9% (Alternative 7) and 11% (Alternative 6) in the percent of the travel corridor with 8-hour L_{eq} levels greater than 35 dBA. It doesn't seem like this difference could even be noticeable by a user yet it is the difference between major and moderate impacts associated with 540 snowmobiles per day (Alternative 6) and 330 snowmobiles per day. A very minor difference in percentage of travel corridor above 35dBA L_{eq} results in the difference between major and moderate impacts. We believe that this difference is indistinguishable by Park users.

Visitor Use and Experience

In the Summary of Impacts section on pages 275 and 276, it states that Alternative 7 would have “long-term beneficial impacts to visitor use and experience because ... variable use levels would allow visitors to plan their trip around their desired experience.” This is also true of Alternative 6 and it should be so stated.

On page 279, the DEIS states:

Although some visitor expectations for OSV access to the park may not be met under alternative 2, implementation of this alternative would provide adequate access to meet OSV demand because permitted use levels would be the same as those maintained under the 2009 interim rule, which have not been met on a parkwide basis.

It is Park County's position that 2009 use levels are not representative of typical use levels. Park County believes that the lower daily OSV usage numbers (see DEIS Table 25 on pg. 142) starting in the 2008/2009 winter season are the result of the downturn in the economy and that use levels are likely to return to pre-2008 levels once the economy recovers. Therefore, please revise the text and interpretation in the FEIS.

Under Alternative 5, snowmobiles would be phased out. The DEIS states (pg. 285) that Alternative 5 would result in...long-term moderate adverse impacts to those wishing to engage in snowmobile use. If snowmobile use is eliminated, this would constitute a major, not moderate, impact to those wishing to experience using a snowmobile in YNP.

On page 285, under Alternative 6, the DEIS states that "a variety of additional snowmobile routes would be made available based on a seasonal schedule." Could the DEIS elaborate on this? No other details regarding this could be found in other areas of the document.

On page 285, under Alternative 6, the DEIS states that "OSV noise would exceed 35 dBA in travel corridors for approximately 13 to 14 percent of the day – more than double that of the 2009 interim rule conditions." This statement does not appear to be backed up by the soundscape data presented in Tables 51 through 58 earlier in Chapter 4 of the DEIS. Please check the accuracy of this statement and reference the Table that documents it.

Human Health and Safety

In terms of the avalanche safety component of the Health and Safety section, there is no discussion whatsoever about the number of snowmobiles allowed at Sylvan Pass. In the alternatives where avalanche control operations continue at Sylvan Pass, there appears to be no differences in safety for staff or visitors depending on the number of snowmobiles allowed—these operations would occur to the same degree no matter the visitor number. If such a difference in avalanche safety operations is dependent on the number of visitors, it was not made clear. Please clarify to what extent the allotted number of snowmobiles per day at the East Entrance is based on health and safety.

Socioeconomic Values

Page 163 in the DEIS states that there are four communities examined at a local scale but only three communities are identified (Cody, Jackson, and West Yellowstone).

Anticipated Plan Longevity

The first page of the DEIS states that “Upon conclusion of the plan/EIS and decision-making process, the alternative selected for implementation will become the winter use plan, which will specifically address the issue of OSV use in the interior of the park for at least the next 20 years.” It is imperative that NPS include a review/revision cycle of the final plan at least every five years. As technology improves and as visitor desires vary, it is important to adjust limits in response to changing conditions. If advances in technology produces OSVs with a 50% reduction in noise and air pollution compared to today’s technology, daily and/or seasonal limits should be adjusted accordingly.

Winter Lodging Tax Receipts

On page 166 in the DEIS, the NPS explains that winter lodging tax collections are not adjusted for inflation. It is unreasonable to expect the reader to perform these calculations, especially over a 15-year time period. If the NPS desires to correlate changes in winter visitation patterns and economic effects to communities/counties/states, perhaps they should choose a different measure instead of inflation-affected tax collections. A more accurate comparison could be the total number of lodging rooms booked through the winter season.

Employment

In terms of employment, winter recreational activities arguably affect three primary employment sectors: retail; arts, entertainment, and recreation; and accommodation and food services. These three sectors comprised approximately 27.7% of the 2008 workforce in the five-county surrounding area.

Isolating these data to Park County, Wyoming, historical trends show that between 2001 and 2009, these three sectors comprised a greater percentage of the county-wide workforce, ranging from 37.73% to 32.63%. Thus, negative effects on winter recreational activities will affect a larger segment of workers in Park County than what is stated in the DEIS. Specifically, Alternative 4 would have a greater impact on Park County due to the closing East Entrance. Please reevaluate the socioeconomic impacts to Park County accordingly and incorporate the findings into the FEIS.

IMPLAN Modeling

In pages 318 and 391, the DEIS explains some of the limitations of using an input/output economic model to analyze seasonal effects in areas with small population. It is clear that a more detailed analysis is required to identify businesses that rely on winter tourism and the degree to which such businesses are negatively affected. Surveys are a powerful tool which have been used extensively to analyze visitor use and satisfaction. A similar vehicle can be distributed in West Yellowstone, Cody, and Jackson to further determine changes in and affects on businesses involved in winter recreation activities.

Current Economic Recession

It is extremely difficult to analyze ‘trends’ of one or two years under unusual circumstances. The NPS should not use the 2009 interim rule as a baseline for any activity, given the fact that usage during an economic recession cannot be characterized as typical. In particular, page 279 of the DEIS states that “Although some visitor expectations for OSV access to the park may not be met under alternative 2, implementation of this alternative would provide adequate access to meet OSV demand because permitted use levels would be the same as those maintained under the 2009 interim rule, which have not been met on a parkwide basis.”

It is Park County’s position that 2009 use levels are not representative of typical use levels. Park County believes that the lower daily OSV usage numbers (see Table 25 on page 142) starting in the 2008/2009 winter season are the result of the downturn in the economy and that use levels are likely to return to pre-2008 levels once the economy recovers. Please revise the text and interpretation in the FEIS.

Non-Commercially Guided Access

The high cost of hiring a guide has limited the number of people that can afford to enjoy YNP and this is backed statistically by a decrease in visitor numbers at the East Entrance and other entrances (Figure 4). The science that supports the necessity of guided only restrictions should be reviewed. We request that 25 percent non-commercially guided access be implemented for the selected alternative and that this percent of use be experimental and subject to adaptive management. This would allow for flexibility and an increase in use if it is found that the predicated impacts for resource areas (i.e., air quality and soundscapes) in the DEIS are overstated in regards to non-commercial use.

For the alternative selected, we suggest that fees charged for snowmobiling would be comprised of: (1) normal entrance fees; (2) a special fee for advance reservations of \$25 per driver to be used to offset the cost of the reservations service to be set up by YNP; (3) any remaining funds will be used to fund a study on the effects of non-commercially guided snowmobilers on YNP (potential for partial funding from the State of Wyoming) and ; (4) YNP would collect both fees upfront to discourage reservation abuse.

In order to balance visitor experience and protection of the Park’s resources, we propose that the following non-commercially guided access rules be implemented: (1) each driver would have to pass an agreed upon on-line Wyoming- administered class on snowmobile training to become certified for non-commercial use in the Park; (2) each driver must possess a valid driver’s license; (3) each driver must have snowmobile liability insurance (non-commercial) and; (4) each driver would be limited to two three-day visits per season.

The following comments address key issues associated with non-commercially guided snowmobile use.

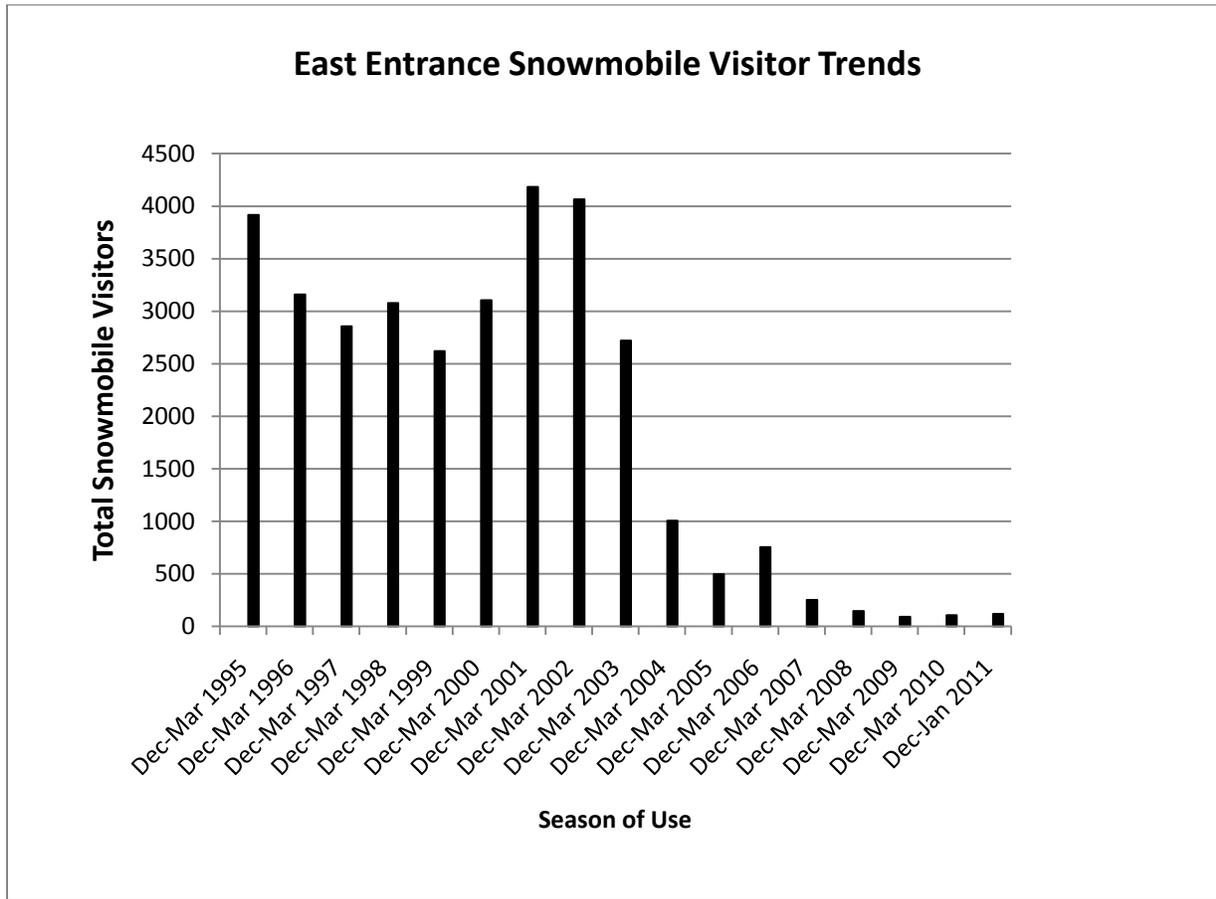


Figure 4 East Entrance snowmobile visitor trends per season

Wildlife

Throughout Chapter 4 in Alternative 6 it is stated that non-commercial user provisions and relatively high use limits may result in adverse responses by wildlife yet there is no data to support these conclusions. Mitigations such as no-stopping requirements, speed limits, designated routes, signage and law enforcement should be sufficient to support a 25% non-commercial element in the selected alternative. For example, the DEIS (pg. 211) states “Historically, researchers have not observed population-level impacts on bison and elk under periods of non-commercial travel, and higher daily numbers of OSVs in the park.” No adverse population-level impacts are expected, because there have been no observed impacts on population growth or demographics correlating to increased or decreased OSV use in the park over the last 38 years. Therefore, if there are no impacts on populations due to increased OSV use then displacement, behavioral, and physiological responses are irrelevant indicators of impacts.

The following references were also taken from the DEIS regarding OSV use:

- Wolverines are still trapped in parts of the greater Yellowstone area, and such harvest may result in mortality of critical members of the population, limiting reproduction, genetic dispersal, and long-term viability of the species in the area. Although only a few individuals are trapped each year, the small population of wolverines may suffer long-term, moderate, adverse impacts from trapping activities (Squires et al. 2007).
- Behavioral and associated physiological effects from OSV use on wolverines and lynx have never been comprehensively observed. Observations of habitat use indicate that wolverines avoid areas of human activity, including snowmobile routes (Banci 1994; Greater Yellowstone Wolverine Annual Report 2008). Lynx appear to be able to adapt to moderate levels of human disturbance (Koehler and Brittel 1990; Mowat et al. 1999).
- It is also unlikely that poor production across the greater Yellowstone area has resulted from OSV use in the park. Swans generally return to their breeding territories between February and late May, with young hatching in late June when OSV is no longer a presence in greater Yellowstone area parks (Stalmaster and Kaiser 1998; Steidl and Anthony 2000; Gonzalez et al. 2006; Olliff et al. 1999) (NPS 2008a).
- Winter users would not be present during the active nesting season for trumpeter swans, and skiers or snowshoers rarely elicit any response from wildlife (McClure et al. 2009; McClure et al. 2008).
- Researchers attribute the overall decline of swans in the greater Yellowstone area to drought and wetland loss, low immigration rates, predation, and competition with other migrants, particularly snow geese (Baril and Smith 2009).
- For example, most facility construction projects in parks and forests take place at previously disturbed sites and replace existing structures, minimizing new effects on wildlife.
- White et al. (2008) concluded that human disturbance did not appear to be a primary factor influencing the distribution of movement of bald eagles and that individual responses that resulted in flight or other active behavior were apparently short term and without lasting influence on species distribution patterns.

No where does the data support the conclusion that allowing 25 percent non-commercially guided snowmobile use will have long-term adverse impacts on any of the wildlife species included for analysis. Therefore, a 25 percent non-commercial OSV provision should be included in the selected alternative.

Air

All alternatives have a long-term minor impact on air quality; therefore allowing 25 percent non-commercial snowmobile use will have no additional impacts to the air resource and should be included in the selected alternative.

Visitor Use and Experience

As stated in the DEIS, Alternative 6 would have long-term beneficial impacts to visitor use and experience because motorized access to the interior of the Park would continue and would provide additional flexibility, including days of higher or lower OSV use, and the ability to share daily OSV allocations between entrance gates. Therefore allowing 25% non-commercial snowmobile use will have positive impacts on visitor use and should be included in the selected alternative. In addition, please consider allowing a provision that if commercial use does not utilize daily allocations, the difference would be available for non-commercial use within the 48-hour departure date rule.

Non-commercial Use Mitigations

1. Include a 25% non-commercial access provision in the selected Alternative.
2. Reduce the non-commercial group size under Alternative 6 to six to mitigate perceived impacts to wildlife.
3. Based on wildlife research presented in the DEIS change the impact determination for Alternative 6 for all wildlife species to short-term minor.

Best Available Technology

Most Park County and Wyoming residents who own snowmobiles can't use them in YNP due to BAT requirements. BAT type snowmobiles are not usually the type of sled used in the mountains due to performance, terrain variety, and weight issues. Most residents and non-residents can't afford to own two types of machines or to purchase new ones for YNP for each change in BAT requirements. Serious consideration should be given to allowing a small percentage of non-commercially guided allocation to riders/machines that are not BAT compliant due to the significant economic impact on the average citizen. Funds from the entrance and booking fees could be used to study the impact on an experimental basis.

Please explore the potential to find and procure simple attachments that would allow non-BAT snowmobiles the possibility of enjoying the Park. If muffler attachments could be installed on snowmobiles to comply with soundscape standards, there is the possibility for adaptive management in terms of BAT requirements. While a muffler attachment may not reduce emissions, there could be a provision for permissible days, such as when impacts to air quality have remained low over a period of

time or when weather conditions are favorable. Developing wind speed thresholds for times that modified non-BAT machines could be used may also prevent an increase in emissions.

There is too much risk for most concessionaires to buy fleets of BAT machines if they become non-compliant due to EPA changes in standards. By allowing for non-commercially guided use, concessionaires may find a market to rent out their machines and justify their investment. In addition, the NPS, in order to be fair to existing allowable OSVs must “grandfather” all OSVs that have been approved by the NPS for the last six years. This grace period is needed both for individual owners and for the small businesses that may have purchased OSVs in good faith under a previous approval.

Legal Comments

NPS Law

16 U.S.C. § 3.

On pages 24-33, the DEIS sets forth laws, policies, plans and constraints that guide the development and implementation of the winter use plan. A relevant statute excluded from the list is 16 U.S.C. § 3:

“The Secretary of the Interior shall make and publish such rules and regulations as he may deem necessary or proper for the use and management of the parks, monuments, and reservations under the jurisdiction of the National Park Service * *. He may also grant privileges, leases, and permits for the use of land for the accommodation of visitors in the various parks, monuments or other reservations [herein provided for] but for periods not exceeding thirty years; and no natural curiosities, wonders, or objects of interest shall be leased, rented, or granted to anyone on such terms as to interfere with free access to them by the public * * *.”

Courts have utilized this statute in determining the rights of access to parks by commercially-guided visitors as compared to non-commercially guided visitors, particularly in Grand Canyon National Park. In that park the NPS recognized the importance of providing both commercial and non-commercial opportunities to float the Colorado River. *Wilderness Public Rights Fund v. Kleppe*, 608 F.2d 1250 (9th Cir. 1979). In the cited case non-commercial floaters filed a court petition to reverse a Park Service decision for failing to recognize the demand for non-commercial floating and failing to provide for adequate non-commercial access. While the court upheld the Park Service decision regarding the allocation of non-commercial compared to commercial access, it recognized the importance under Park Service law for providing non-commercial access. The court interpreted the “free access” language in 16 U.S.C. § 3 to give non-commercial users access rights alongside commercial users:

“The Service recognizes its obligation to protect the interests of both classes of users [commercial and non-commercial]. It can hardly be faulted for doing so. **If the overall use of the river must, for the river’s protection, be limited, and if the rights of all are to be recognized, then the “free access” of any user must be limited to the extent necessary to accommodate the access rights of others.**”

The court’s analysis provides that non-commercial access to national parks is an important aspect of Park Service management. Statute 16 U.S.C. § 3 should be incorporated and utilized in addressing the final winter use plan.

The Organic Act

Park County continues to assert that the NPS improperly interprets the NPS Organic Act particularly when read in context with the Yellowstone Park Act. This misinterpretation affects the entire winter use planning process. The NPS interprets the Organic Act to mean that the agency may only allow impacts from a long-established use such as snowmobiling when the NPS first determines that the impacts are “necessary and appropriate” to fulfill a purpose of the park. (WUP at D-3: “[T]he laws do give the NPS the management discretion to allow impacts on park resources and values when necessary and appropriate to fulfill the purposes of the park.”) However, nothing in the Yellowstone Park Act or the Organic Act and its amendments justify such an interpretation. The level of impact is not defined in the above quoted NPS guidance. Therefore, the NPS interpretation of the Organic Act can lead to court decisions that prevent the NPS from allowing *any* impact from *any* use unless it first makes a determination that the impact is “necessary and appropriate.”

Problematically, NPS management policies themselves contradict this interpretation. For long-established uses the Management Policies at Section 8.2.2 require that the NPS monitor the use’s patterns and trends and assess its impacts so that “impairment” of natural resources will not result. Under the policy a long-established use previously found appropriate, such as snowmobiling, is only prohibited when impacts become unacceptable and if continued would likely result in impairment. The use is not precluded prior to any “necessary and appropriate” finding. The Code of Federal Regulations at 36 C.F.R. § 1.5 supports this interpretation: Under this regulation before an existing use is restricted, a park superintendent must make a specific written recommendation explaining the restriction’s necessity; any restrictions imposed are limited to the *minimum necessary* to protect park resources and values and promote visitor safety and enjoyment. In other words, Yellowstone is open to long-established appropriate public uses until such time as the NPS determines a use is causing the kinds of impacts that

result in, or will soon result in impairment. Again, snowmobiling has long been established as an appropriate use in Yellowstone.¹

The NPS also continues to assert that under the Organic Act, if any undefined conflict arises between resource protection and public use and enjoyment of the parks, preservation of natural resources *by operation of law* becomes the predominant concern.

The Tenth Circuit Court of Appeals, whose jurisdiction includes Wyoming and the portion of Yellowstone Park within Wyoming, has cited favorably a case that sets forth the following language as the appropriate legal interpretation of the Organic Act:

The Organic Act commits the NPS to the protection and furtherance of two fundamentally competing values; the preservation of natural and cultural resources and the facilitation of public use and enjoyment. These competing values of conservation and public use have been actively in conflict since before the establishment of the NPS. **The Organic Act did not resolve the conflict in favor of one side or the other.** See, Nathan L. Scheg, *Preservationists v. Recreationalists in Our National Parks*, Hastings W.N.W.J. Env'tl. L. & Pol'y 47 (1998). Rather, the Organic Act acknowledges the conflict and, saying nothing about how to achieve resolution, grants deference to NPS in balancing the competing and conflicting values.

The Organic Act itself does not mandate that the balance in any particular decision reflect one value over the other.

See *Southern Utah Wilderness Alliance v. Dabney*, 222 F.3d 819, 827 (10th Cir. 2000)(citing and quoting in part *Sierra Club v. Babbitt*, 69 F. Supp. 2d 1202, 1247 (E.D. Cal. 1999)).

¹ 1974 Yellowstone Master Plan:

“Yellowstone will be managed on a year-round use basis. There are two defined periods of heavy use, and the management and operation must be geared to such for maximum enjoyment of the resources by the visitor – May 1 through October 31 and December 1 through March 15.

For the more hearty individual, snowmobiling along designated and maintained road corridors is available.”

Under the proper interpretation, the test in balancing the NPS dual mandate of resource protection and public use, is as stated by the Tenth Circuit, simply whether the resulting action leaves the resources “unimpaired for the enjoyment of future generations.”

The term “enjoyment” must be taken seriously in balancing the goals of the Organic Act. Preeminent National parks historian Richard West Sellars, in a thorough and objective review of the Organic Act, stated the following in analyzing the meaning of the Act’s fundamental purpose statement of providing for enjoyment while preserving natural resources:

Mentioning “enjoyment” twice, the final statement provided for enjoyment of the parks, but required that parks be left unimpaired so that future generations could *also* enjoy them. These goals could be met by essentially the same means as those of the earlier public health and recreation mandate—by maintenance of the parks’ scenic landscapes, which would help ensure continuance of public enjoyment of the areas. Olmstead could have perhaps strengthened the preservation aspects of the statement by plainly requiring the parks to be left “unimpaired for future generations” rather than “unimpaired for the *enjoyment* of future generations.”

His [Olmstead’s] final statement of purpose—against which so much national park management would be both justified and criticized—was thus in accord with the widely held concept of national parks as scenic pleasuring grounds.

RICHARD WEST SELLARS, *PRESERVING NATURE IN OUR NATIONAL PARKS* 40-41 (Yale Univ. Press 1997).

Non-impairment determination

The DEIS at Appendix D sets forth a non-impairment determination for the preferred alternative. The NPS is required to set forth in its proposed action whether or not impairment to park resources and values will result. Appendix D only provides an impairment determination for wildlife, air quality and soundscapes.² Park County appreciates that the DEIS is essentially a NEPA document and as such an impairment finding for public use and enjoyment may not be necessary in that context. However, ultimately the action at issue is the development of a winter use plan, a final decision for which must not only comply with NEPA, but also with the requirements of the Organic Act and Yellowstone Park Act. Under the latter acts the NPS must make an impairment or non-impairment determination for the public use value.³ This has not been done. NPS Management Policies make it clear that the park resources and

² The draft rule currently open to comment does not set forth any non-impairment analysis.

³ After describing Yellowstone’s boundaries, the Yellowstone Park Act states its fundamental ideal—that the park:

values that are subject to a non-impairment determination include public use and enjoyment. Any final winter use plan must include a finding regarding the impairment or non-impairment of public use and enjoyment.

Off-road vehicles

The NPS believes that snowmobiles require special regulations. Park County continues herein to make the argument that snowmobiles travelling on Yellowstone highways are not subject to special regulations: snowmobiles operated on highways in winter are the analog to automobiles travelling on highways in the summer. Snowmobiling in the Parks is, according to the Park Service, only authorized under the Code of Federal Regulations at 36 C.F.R. § 2.18. The regulation, along with those at 36 C.F.R. Section 7, were adopted in response to Executive Order 11644 issued by President Nixon in 1972. The Executive Order was intended to address resource damage and conflict with other uses arising from off-road use of recreational vehicles on public lands. The executive order allows for public land agencies to develop regulations designating trails and other such areas where off-road vehicles may travel.

The executive order is titled “Use of Off-Road Vehicles on the Public Lands” and is directed toward travel off developed highways. The executive order defines “off-road vehicle” as follows:

(3) "off-road vehicle" means any motorized vehicle designed for or capable of cross-country travel on or immediately over land, water, sand, snow, ice, marsh, swampland, or other natural terrain; except that such term excludes (A) any registered motorboat, (B) any fire,

“is hereby reserved and withdrawn from settlement, occupancy, or sale under the laws of the United States, and dedicated and set apart as a public park or pleasuring-ground for the benefit and enjoyment of the people”

Act Establishing Yellowstone National Park, 17 Stat. 32 (1872) (*codified at* 16 U.S.C.S. §§ 21-22, (Law. Co-op. 1991)). Following this defining language, the Act at section 2 authorized the Secretary of the Interior to:

“make and publish such rules and regulations as he may deem necessary or proper for the care and management of the same. Such regulations shall provide for the preservation, from injury or spoliation, of all timber, mineral deposits, natural curiosities, or wonders within said park, and their retention in their natural condition.”

Id. With this language, Congress created Yellowstone with the novel idea of preserving an area of land managed to prevent injury to or spoliation of its natural wonders for the specific purpose of providing benefit and enjoyment for the people.

military, emergency or law enforcement vehicle when used for emergency purposes, and any combat or combat support vehicle when used for national defense purposes, and (C) any vehicle whose use is expressly authorized by the respective agency head under a permit, lease, license, or contract;

Section 2(3)(emphasis added). After defining the kind of terrain in need of protection, the executive order instructs that public agencies create regulations establishing “specific areas and trails” for use by off-road vehicles so that, among other things, damage to soil, watershed and vegetation is minimized. *Id.* § 3(1). Applying the ordinary meaning of the relevant language and applying it in context leads to the seemingly obvious result that the intent of the executive order was to control the abuses of vehicles that travel off-road, **cross-country** over **natural terrain** rather than to control vehicle travel along established highways.

“Natural” in the context of the executive order means “untouched by man or by influence of civilization;” “in accord with the regular course of things in the universe and without accidental or purposeful interference;”. BLACK’S LAW DICTIONARY 1026 (6th ed. 1990); *id.* at 1054 (8th ed. 2004). “Cross-country” means “moving or directed across open country rather than following tracks, roads, or runs;” “proceeding over countryside (as across fields and through woods) and not by roads.” Webster’s Ninth New Collegiate Dictionary 309 (1986); Merriam-Webster’s Online Dictionary available at <http://www.merriam-webster.com/dictionary/cross-country>. In Yellowstone, snowmobiles only travel along developed park highways. Just like automobiles in the summertime, they do not travel off-road, cross-country over natural terrain. The executive order is clearly concerned with the manner in which a vehicle travels off-road across sensitive landscape rather than in controlling the use under all circumstances of a particular type of vehicle. Nothing in the executive order indicates an intent to regulate snowmobiles that travel along developed highways. While certainly a snowmobile is “capable” of traveling off-road, cross-country over natural terrain, so are motorcycles, front-wheel drive and all-wheel drive automobiles, for example, all of which have the capability of creating far more damage to the off-road landscape than snowmobiles. Yet the Park Service has not drafted special regulations for automobiles and motorcycles under the authority of the executive order. The reason is because, just like snowmobiles, they do not travel “off-road” and are not considered off-road vehicles for regulatory purposes under the executive order.

Because snowmobiles do not travel off-road and the executive order is unambiguous in its intent to control only the potential abuses of and conflicts arising from vehicles traveling off-road, cross-country over natural terrain, the Park Service has no authority, under the executive order, to declare snowmobile use prohibited except where designated or to create special regulations for snowmobiles that travel exclusively along highways. By the plain meaning and intent of the executive order, snowmobiles are not off-road vehicles and cannot be subject to special regulations under the executive order.

REFERENCES

- Borkowski, John J., P. J. White, Robert A. Garrott, Troy. Davis, Amanda R. Hardy, and Daniel J. Reinhardt. 2006. Behavioral responses of bison and elk in Yellowstone to snowmobiles and snow coaches. *Ecological Applications* 16, no. 5 1911–1925.
- Bunnell, K. D., J. T. Flinders, and M. L. Wolfe. 2006. Potential impacts of coyote and snowmobiles on lynx conservation in the intermountain West. *Wildlife Society Bulletin* 34, no. 3 828–838.
- Cassirer, E. Frances, David J. Freddy, and Ernest D. Ables. 1992. Elk responses to disturbance by cross-country skiers in Yellowstone National Park. *Wildlife Society Bulletin* 20, no. 4 (Winter): 375–81.
- Despain, Don G. 1987. The two climates of Yellowstone National Park. *Proceedings of the Montana Academy of Science* 47, 11–19.
- Greater Yellowstone Science. Yellowstone elk overview. www.greateryellowstonescience.org. (accessed May 18, 2007).
- Kay, Charles E. 1993. Aspen seedlings in recently burned areas of Grand Teton and Yellowstone National Parks. *Northwest Science* 67, no. 2 94–104.
- Larsen, Eric J. and William J. Ripple. 2003. Aspen age structure in the northern Yellowstone ecosystem, USA. *Forest Ecology and Management* 179, 469–482.
- Leopold, A. Starker, S. A. Cottam C. M. Cain, I. N. Gabrielson, and T. L. Kimball. 1963. *Wildlife management in the National Parks: the Leopold report*. Advisory Board on Wildlife Management appointed by Secretary of the Interior Udall. March 4.
- MFWP. 2002. *Annual northern Yellowstone elk count completed*. January 25. http://fwp.mt.gov/news/newsReleases/headlines/nr_0950.html. (accessed June 25, 2011).
- National Park Service. 2011a. *Winter count shows decline in northern elk herd population*. <http://www.nps.gov/yell/parknews/11005.htm>. (accessed July 6, 2011a).
- . 2011b. *Wolves of Yellowstone: Yellowstone National Park wolf population estimate as of 7/29/2010*. www.nps.gov/yell/naturescience/wolves.htm. (accessed .
- Robbins, Jim. 1996. Weaving a new web: wolves change an ecosystem. *Smithsonian Zoogoer* 27, no. 3
- Schullery, Paul. *The greater Yellowstone ecosystem*. <http://biology.usgs.gov/s+t/nofram/r114.htm>. (accessed May 21, 2007).
- Toweill, Dale E. and Jack Ward Thomas. 2002. *North American elk: Ecology and management*. Washington, DC: Smithsonian Institution Press.
- Vucetich, John A., Douglas W. Smith, and Daniel R. Stahler. 2005. Influence of harvest, climate, and wolf predation on Yellowstone elk, 1961-2004. *Oikos* 111, no. 2 (November): 259–270.

- White, P. J., J. J. Borkowski, R. A. Garrott, D. P. Reinhart, and D. C. McClure. 2008. Chapter 26: Wildlife responses to park visitors in winter. In *Terrestrial ecology: The ecology of large mammals in Central Yellowstone - Sixteen years of integrated field studies, vol. 3.* ed. Garrot, R. A., P. J. White, and F. G. R. Watson, Chap. 26, 581–601. Elsevier.
- White, P. J., Troy Davis, John J. Borkowski, Robert A. Garrott, Daniel P. Reinhart, and D. Craig McClure. National Park Service, Yellowstone National Park; Montana State University. 2006. Behavioral responses of wildlife to snowmobiles and coaches in Yellowstone. October 17. http://www.nps.gov/yell/parkmgmt/upload/2006wildliferpt_final.pdf. (accessed .