

November 16, 2021

Shoshone National Forest:

This letter of concern regarding the Shoshone National Forest Travel Plan focuses on the portions of the forest that include the Line Creek RNA and the High Lakes Wilderness Study Area. The primary issue with the proposed plan is that the start and end dates for Over-the-Snow Vehicle (OSV) travel start too soon in the fall and extend too far into the spring. The dates need to be revised to recommend a November 30 open season and an April 15 closure. Below I lay out the clear evidence for this shorter period.

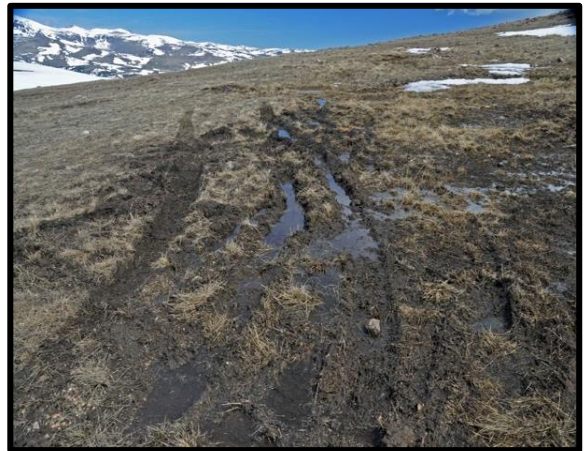
In fact, the primary issue is that the USFS has the responsibility and authority to develop a management strategy that sustains the health and vigor of two areas that were specifically designated as scientific study sites. The RNA was set aside for conducting non-impactful research and monitoring, to conserve biological diversity, and to provide a place to educate the public about ecology. The HighLakes WSA extends protection to sensitive alpine ecosystems. The arguments that the Forest Service uses to allow Over-the-Snow Travel misdirects the public into thinking that the travel issues concern multiple user conflicts in the fragile high-country alpine study and research areas. My evidence shows that the start and end-of-season dates in preferred Alternative 4 as well as those of the other alternatives is not restrictive enough to avoid harm to alpine vegetation, especially knowing that the chosen alternative will be in place for a decade or more will not keep pace with either climate change or the increase in motorized activity. The damage that will occur will result in such severe damage to the alpine soils and vegetation that scientific work meaningless.

Section 3.3.5.2 of the Draft document clearly states the “LMP direction and goals to maintain a backcountry Forest” is the aim of the new proposed plan. That is, the Forest Service are the caretakers of the resources within its boundaries, and like medical doctors do no harm.

Many pieces of evidence and information support a much more restrictive OSV to prevent further damage to the alpine zone vegetation.

For example, the latest climate studies for the Greater Yellowstone Ecosystem show that the temperature in the Greater Yellowstone Ecosystem has increased 2.3 degrees F since 1950, and peak stream flow is 8 days earlier and snowfall is 23 inches less and much of that occurs in spring when warming is greatest. The future trend is that the number of hot days per year is projected to increase and exceed a week in Pinedale, WY and a month in Cody, WY by the end of the century (Hostetler S, Whitlock C, Shuman B, Liefert D, Drimal C, Bischke S. 2021. Greater Yellowstone climate assessment: past, present, and future climate change in greater Yellowstone watersheds. Bozeman MT: Montana State University, Institute on Ecosystems. 260 p. <https://doi.org/10.15788/GYCA2021>).

Photographs 1 – 3 illustrate the damage that the alpine zone is suffering now due to vehicle and snowmobile damage. A photograph taken in August, 2019 of SnoCat tracks imprinted on the alpine turf on June 21 2019 and photos of May 31, 2021 truck and snowmobile violations clearly substantiate the fact that the onset of snowmelt may be late as in 2019 or early as this year; that snowmobilers simply don't heed the obvious need to stay on snow; and that the Forest Service does not enforce its own rules about enforcing only over snow travel. This fall, as of November 1 (the opening date for OSV per alternative 4), snowcover on the Beartooth Plateau and the subalpine zones was, and is still, too thin to protect vegetation that is still in the process of establishing dormancy.



Photos 1 & 2 - May 31, 2021 across (east) from Gardiner Lake parking lot

Soil Temperature data from the Global Observation Research Initiative in Alpine Environments (GLORIA) established in 2012 on four mountain peaks in the Shoshone National Forest on the Beartooth Plateau offer important information about the variability of soil temperatures. Soil temperature data loggers are recording temperature 6" below the soil surface today and every hour of every day since 2012. Soil temperatures react differently from the air temperature due to either insulation of snow cover or exposure to severe winds at wind-scoured areas. The graphs below (*Figures 1 and 2*) from one of our sampling sites near Gardiner Headwall show that soil temperatures vary greatly depending on the aspect (east or west side of the peak) and to the prevailing winds that scour snow off the west side and deposit on the east.

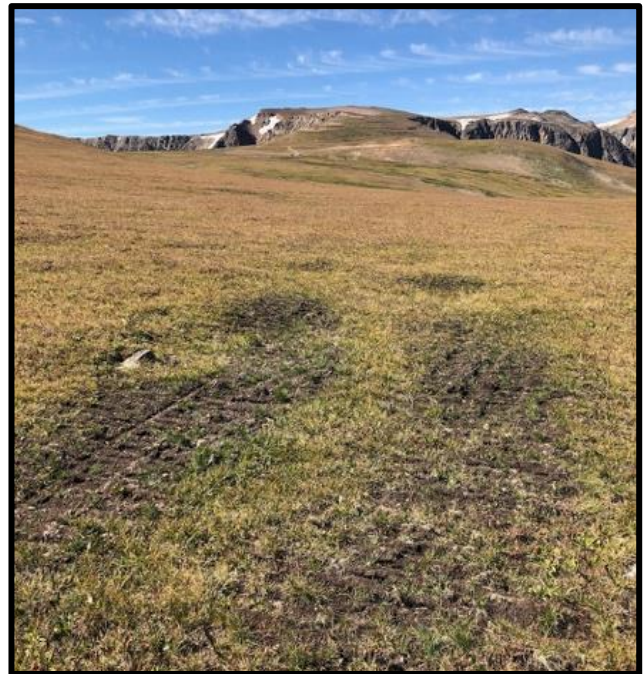


Photo 2 – Eastside damaged June 21, 2019 (photo Aug. 2019)

The graphs indicate stable winter soil temperatures on the east side because of deep snow cover while the west side snow pack is thin. In the spring the west side of the peak warms very early and will be susceptible to snowmobile damage as early as April. The proposed Travel Plan contains no provisions to protect the vegetation from damage on wind scoured slopes.

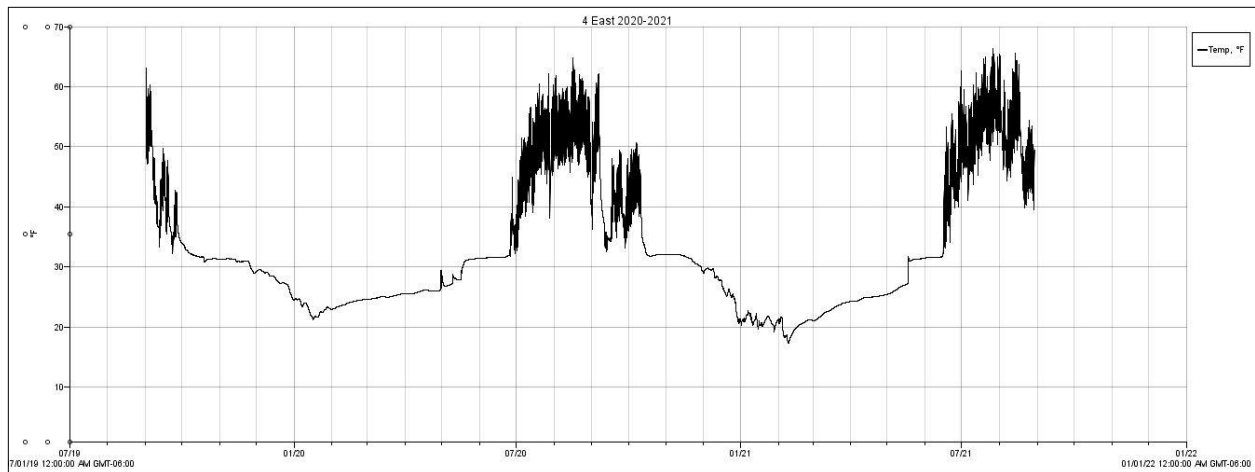


Figure 1 - East Side Soil Temperatures July '19 - Aug '21

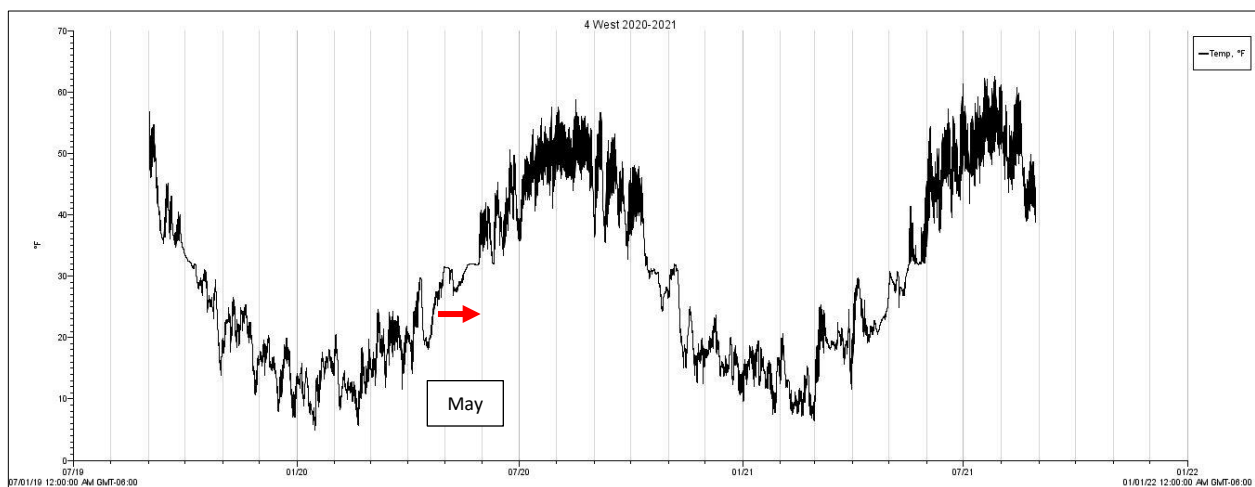


Figure 2 - West Side Soil Temperatures July '19 - Aug '21

Alpine vegetation is most susceptible to permanent damage during the times when plants are going into their dormancy in fall and coming out of winter dormancy in spring. The plant growth buds are extremely vulnerable at those times.

However, unrestricted and uncontrolled OSVs travel over the ground on the Shoshone National Forest alpine areas occurs every spring season. ***The Forest Service had no personnel on the plateau in June 2019 to enforce the over-the-snow regulation and to close the area to snowmobiles. And on May 31, 2021 snowmobiles and trucks damaged extensive areas of fragile alpine vegetation with no regulators or enforcers to prevent their activities.***

Section 3.4.1.2 Legislative and Agency History Relevant to Its Designation as a Wilderness Study Area states

“Alternatives 2 and 4 would limit these opportunities through imposition of season-of-use dates, but these dates are not expected to impede the opportunities for this motorized recreation. These dates mostly line up with the core OSV season, and, accordingly, support this recreation when can occur with minimal damage to Forest resources (while also reducing any public health and safety risk from operating over areas with too little snow).”

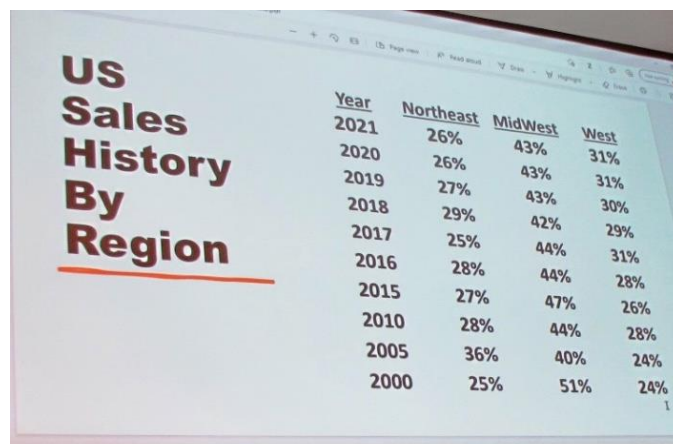
There are two important points to address in this paragraph. First, it is impossible to conduct meaningful scientific studies if any human-caused damage occurs within a study site. Second, the focus of this statement addresses the possibility of humans being injured by driving over the ground rather but neglects to focus on the Forest Service mandate to protect the natural landscape from damage!

Section 3.4.1.3 Current Status

“The two key pieces of the legislation relevant to management of the area have been incorporated into the LMP: the goal to manage the area “to prevent long-term impairment of wilderness characteristics” and the direction to provide motorized winter opportunities (LMP MA1.6A-GOAL-01, MA1.6A-GOAL-02). Impairment of wilderness characteristics is, accordingly, the core consideration in managing use within the area. Management of use includes incorporation of Congress’s direction to allow snowmobiling to continue provided the use does not frustrate potential designation of the High Lakes as a wilderness area in the future.”

The wilderness character of the High Lakes Area is in jeopardy today as is the Line Creek Research Natural area. Very serious problems lie immediately ahead: Snowgoer Magazine’s June 14, 2021 front page article reports that “Sales of new snowmobiles surged ahead in North American in the 2020-2021 selling season, growing by 16% in both the US and Canada. The growth is similar to sales increases in many other outdoor markets during the COVID era, and could have been even higher if dealerships hadn’t run out of product to sell. Dealer inventories are at record lows.” It says also that the 16.1 percent increase in new sled sales in the US marks the biggest year-over-year jump, in terms of percentage, in the snowmobile market since 1995... Plus the 59,234 units sold in the 2021 sales season was the biggest raw number the market sold since 2009....This comes at the same time that several manufacturers said spring pre-orders of 2022 models were through the roof—meaning the momentum is expected to continue going forward.”

The trajectory shown for the Western region of snowmobile sales shows the tremendous rate of increase in the past decade and the trend is sure to continue into the future (*see Figure 3*).



Regional sales of snowmobiles in the U.S., as presented by Ed Klim of ISMA.

Figure 3 - Snowmobile Sales by US Region and Year, 2000 - 2021

The Shoshone Travel Plan Draft EA must consider the future consequences of the decisions that are made by the new Travel Plan since it will be the guiding document for years to come

Sections 3.4.3.3.1 Direct and Indirect Effects of Alternative 1 through Section 3.4.3.6.1 Direct and Indirect Effects of Alternative 4 as well as the Section 3.4.3.7 Cumulative Impacts Common to all Alternatives do not address the very observable on the ground impacts that are occurring now and will accelerate in the near future because of climate change, increasing numbers of OSVs and the obvious lack of human resources in the Forest Service to handle the numbers of people and snowmachines that use the fragile alpine meadows and peaks.

This Travel plan must squarely face the obvious and dire current and future impacts to the HLWSA and the Line Creek RNA. Protection of the natural landscape for the primary intention of research and study is the duty of the Forest Service.

Section 3.6 Sensitive Plant Species. The plant communities of the HLWSA and the Line Creek RNA have many of the plants that are listed in Tables 93 and 94.

Eriophorum gracile (Slender cottongrass), *Parnassia kotzebui* (Kotzebue's grass-of-parnassus), *Pinus albicaulis* (whitebark pine), *Ranunculus gelidus* (Timberline buttercup), *Carex leptalea* (Bristly-stalk sedge), *Eriophorum callitrix* (Sheathed cottongrass), *Koenigia islandica* (Koenigia), *Phippisia algida* (Ice-grass), and *Potentilla nivea* (Snow cinquefoil) are Species of Concern that occur within these areas. This alpine vegetation is most susceptible to permanent damage during spring and fall growing periods. For that reason, I recommend a travel plan that protects them during these crucial periods.

While the Forest Service includes OSV monitoring in the Travel Plan there is not enough personnel to stop the level of illegal travel.

Given the dire and overwhelming information provided by the GYA Climate Assessment, the visual evidence of damage to the alpine vegetation in past seasons, the evidence from soil temperature data in the alpine zone from peaks at tree line to snowline that show yearly variability in snow cover due to weather conditions and aspect (e.g. N or S-facing slopes), it is imperative that the proposed Alternative 4 be revised to recommend a November 30 open date and an April 15 closure date.

Please protect the absolutely beautiful unique alpine areas and research sites on the Shoshone National Forest now and for the future.

With regards,

Jennifer Lyman

A black rectangular redaction box covering the signature of Jennifer Lyman.

