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Title: Comments:

I'm writing to you today in objection to the "south bowl" and lighting trees and the amending of the 1997 forest plan to accommodate these SUP boundary expansions. These two areas total approximately 1,200 acres that are designated as management prescription 2.1.2: Visual Quality Maintenance. This area is already closed to over-snow motorized vehicles, and wheeled motorized vehicle. The purpose of these regulations are "to protect wilderness or wildlife in winter ranges and cross-country ski areas."(1) These two areas are home too many different species of animals ranging from moose, mule and white tail deer, elk, cougars, bears, wolverines, birds, ermine and squirrels to name a few.

The environments and appearance will be forever changed if chairlifts are allowed to be built. In order to build these chairlifts new roads will have to be built to access the areas. Lighting Trees will require .9 miles of new roads and the length of new roads was not stated in the "south bowl" proposal which includes a "spur road connecting the switch back on peaked mountain to the proposed south bowl mountain road."(2) Nor was the length of the proposed over snow road that would run along the top of the proposed south bowl. What was stated was 5.6 miles of new roads would be constructed. In order to construct these roads, heavy machinery will have to be used, trees will have to be removed and the slopes will need to be stabilized due to the location of the road in steep terrain. GTR also wants to "provide a well-defined and smooth skiable surface" where more "heavy machinery would be required in certain circumstance to achieve the desired surface"(3)

The proposed south bowl road also runs through two big avalanche paths that have produced huge destructive avalanches. The South Bowl slide on March 3, 2014, with a crown depth 120" its relative size: 4 and destructive size a 4. This slide was remotely triggered by skiers and it ran full track. It bent and removed vegetation and widened the run out.(4) The other known avalanche path that will impact this road is the south east bowl of Peaked. According to the map this road will switch back though the pinch of south east bowl where the avalanche run out becomes narrow, and creates a huge terrain trap where the snow collects at the bottom. The slide that occurred on the south bowl and the slides that occur from the South East bowl will take out and bury the road that GTR wants to build. There is also an "over snow road" that is being proposed that runs from the top of peaked along the saddle to Mary's Nipple then across the top of the ridge to the top of Steve Baugh. This ridge is well known to be wind sweep, and rocky therefore lacks the snow to build an over snow road. This over snow road is also to be constructed in the starting zones of at least 5 different known avalanche starting zones. On February 5, 2018 a massive avalanche event occurred, the entire ridge from the top of Mary's Nipple to Steve Baugh slide. The crown depth was 75", relative size of 4 and destructive size of 3.5.(5) This slide removed mature trees and the avalanche debris traveled a far greater distance in the run out than previous avalanche events I have seen.

The South bowl expansion has at least 7 well known avalanche starting zones that will have to be controlled by avalanche mitigation methods. In addition to the starting zones there are many areas that will also need to be controlled due to the nature of the many small terrain traps in the area. The most effective method of avalanche control is the use of bombs. I am not sure the number of bombs needed to make this area safe, I know there will be a lot of them. These bombs when detonated will reverberate up the North fork of Teton Canyon and Teton Canyon which are part of the Jedediah Wilderness. This will greatly disturb and redistribute the wildlife that is already in the area. There is no way to contain the noise that is created when using bombs.

"In 2005 Burlington Northern Santa Fe railway requested a special use permit for Glacier National Park to allow for a permanent explosive avalanche reduction program including military artillery".(6) They wanted to bomb the avalanche areas that were located above their railway in Glacier National Park. GNP did an EIS for the proposed avalanche mitigation that BNSF wanted to conduct. They would have been able to use hand charges, Avalaucher, helicopter delivery, or Avalhex or blaster box systems.(7) According to the EIS for the use of explosive "charges in natural avalanche process would have an impact on soil, erosion or vegetation caused by the changes in natural avalanche disturbance levels. Sporadic disturbance from explosive use would have a range of impacts on wildlife and threatened or endangered species. Direct impacts include mortality or injury froms explosion or triggered avalanche, physiological changes, flight response, deafness, seismic disturbance, and/or behavioral changes. Indirect impacts include vegetation changes, food or prey availability changes, decrease in reproductive success, habitat fragmentation, loss of habitat connectivity, and changes to critical habit for threatened or endangered species. "(8) "Explosive use would introduce a major, adverse, short-term, site-specific impacts on natural sound. The quiet of wilderness would be interrupted by short bursts of load explosions." After the EIS was complete Glacier told BNSF to build snow sheds over their railway at the expense of BNSF.(9)

Long and short term noise pollution includes avalanche mitigation, the building of the road using heavy machinery; the removal of trees using chainsaws and heavy machinery to load and remove the trees; the construction of the lifts, which will use heavy machinery, helicopters, concrete trucks and helicopters to move the concrete and lift towers, the possibility of explosives to build the lift pads; the running of the lift; the use grooming equipment at night; snowmobiles used by ski patrol and lift maintenance and heavy equipment to run the power to the lifts, and the people skiing and snowboarding in the area.

Does this make the area safer? No, it does not make the area safer. Developing the South Bowl will only increase injury because the planned lifts will put 1,800 skiers to the top of the mountain per hour. The more people that are in the area increases the likelihood of injury or death. Grand Targhee or Grand Fogee has many days of low light visibility. The South Bowl is not an area you want the public in during these low light days. There are a series of couloirs in the area that have a micro climate of their own. The massive cliff band there creates thermal heating of the snow that causes wet slides even during freezing temperatures. The entire area is south facing that receives ample sun when it is out also causing thermal heating of the snow, this thermal heating can cause unexpected destructive wet slides. Even with its high elevation when the sun is out the snow gets cooked and does not "stay good". In-bound avalanches happen. Eight ski-area guests have died in in-bound avalanches in the past 10 years. Two of these deaths were located on the new Kachina peak expansion area at Taos Ski Valley on January 17, 2019(10) Kachina peak opened from a popular backcountry area to lift access February 12, 2015. Eight guests, five patrollers and snow scientists have died in in-bounds avalanches.(11) On dec. 1 2019 5 people were buried in an in-bounds avalanche in the experts chutes of Jackson Hole Ski Resort.(12) In the 18 years that I have been snowboarding in the area we have not had any lost skiers, major or minor injuries that would require search and rescue. The expansion will also push the backcountry users that are currently in the area further up the canyon, making it harder for Search and Rescue respond.

The GTR states they need these expansions. They need these expansions to provide undeveloped, minimal maintained lift-service terrain; to enhance the skiing experience for various of abilities of levels for guests that includes advanced-inter mediate terrain, to meet current and anticipated public demand. Improving skier circulation across the mountain, improve guest services, facilities, "address shortcomings in their terrain offerings and operations to remain viable in the competitive destination skier/rider market."(13)

Improving the overall experience at GTR does not require amending the 1997 Revised Forest Plan. It does not require expanding 1,200 acres into environmentally sensitive habitat. Start with parking, that is a huge issue because there is not enough of it. People are sitting in their cars on the roads wanting to ski and they can't because there is not enough parking. Build the already approved peaked lift. This will add 602 acres of minimally maintained lift-service terrain and it will improve the skier circulation across the mountain. It also opens up the advanced-intermediate terrain you seek by allowing lift access to the peaked ridge, build the new maintenance building that the trees have already been cleared for, update and remodel the Teewinot, Targhee and Sioux lodging to make it modern and put dry firewood in those fire pits.

The "south Bowl" is already open to backcountry skiing and snowboarding. If this plan does get approved and the Snowcat operation is moved into the South Bowl members of the community will lose our access to the area and it will become closed to the public. We the people, will lose our backcountry access to 2 snowcats, 4 guides and 24 guests.

A written time frame for building the three proposed lifts still hasn't been done, and given the fact that the Peaked lift has been approved since 1994, that is 26 years they have been able to build this lift. I do not see it being built any time soon there for the public will loose all our access to backcountry skiing in the area.

Thank-you

Michelle Nicholson

End Notes

- 1. Caribou-Targhee national forest Palisades & Teton Basin Ranger Districts map
- 2. Caribou-Targhee scoping document pg. 5
- 3. Caribou-Targhee scoping document pg. 2
- 4. Bridger Teton Avalanche events map March 3, 2014
- 5. Bridger Teton Avalanche events map February 5, 2018
- 6, 7, 8, 9. Avalanche Hazard Reduction by Burlington Northern Santa Fe Railway in Glacier National Park and Flathead National Forest, Montana Final Environmental Impact Statement pg. 9
- 10, 11, 12 After an Avalanche, Questions about safety. NYtimes 2/20/2019
- 13. Caribou-Targhee scoping document pg. 1