

Data Submitted (UTC 11): 10/11/2020 5:33:58 PM

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Comments: I am not in favor of the majority of what Grand Targhee has proposed for future development. I feel Grand Targhee asks for too much before knowing the impacts of its proposed actions across Teton Valley.

1. With all of these vast ideas, there hasn't been one mention of housing not only for the current and future employees but for the community. Teton Valley is already in a housing crisis.

Employer-assisted housing programs help build employee loyalty and increase productivity through improved morale, an enhanced employee work/life balance, and decreased absenteeism. The unavailability of affordable housing can make it difficult for employers to attract quality employees.

In 2019 there were 281 land sales throughout Teton Valley, Idaho. Year-to-date, we've had 189. Add in the number of pending transactions, and that number jumps to 292. There are over 100 contracts on vacant land out there today. In 2019 there were 21 sales throughout Teton Valley over \$1m. Year-to-date, there have been 15, but there are another 20 pending sales.

2. The proposed development has profound implications for wildlife and Wilderness on the west side of the Tetons. I am particularly concerned about the resort's proposal to expand into Teton Canyon. A mineral lick in Teton Canyon that provides critical nutrients for the imperiled Teton bighorn sheep herd and expanding the ski resort into Teton Canyon will discourage sheep from visiting this site.

The South Bowl is no place for a ski resort and it needs to be considered on how expanding into Teton Canyon, or Mono Trees will impact the wildlife and wilderness.

Skiing and snowboarding might cause disturbances that create stressful conditions for the local wildlife, report the authors of a 2008 study published in the "Journal of Applied Ecology." The population of black grouse, a creature that lives in the Swiss Alps, is usually found at half its average density around ski areas. Raphael Arlettaz of the University of Bern's Zoological Institute in Switzerland studied the effects of these disturbances by analyzing the levels of a stress hormone in bird droppings. Stress levels were highest near ski areas, especially near resorts with numerous lifts. Arlettaz reports that ptarmigan, roe deer, red deer, ibex, chamois, rock partridge, and snow hare might also be in danger.

Alpine habitats above the tree line are already threatened by global climate change, and interference from skiers is just another stressor. These disturbances can scare wildlife and even harm their habitat by damaging vegetation and compacting soils. Another example, ptarmigan (a type of grouse adapted to snowy habitats) in Scottish ski areas declined over several decades because of collisions with lift cables and other wires and from losing nests to crows, which have become common at the resorts.

3. Being on the edge of the Grand Teton Range, the impact of lights at night will severely impact the one of a kind night sky Teton Valley has to offer.

The advantages of reducing light pollution include an increased number of stars visible at night, reducing the effects of electric lighting on the environment, improving the well-being, health, safety of people and wildlife, and cutting down on energy usage.

Nocturnal animals can be harmed by light pollution because they are biologically evolved to depend on an environment with a certain number of hours of uninterrupted daytime and nighttime. The over-illumination of the

night sky is affecting these organisms (especially birds). This biological study of darkness is called scotobiology. Light pollution has also been found to affect human circadian rhythms.

Paul Bogard's book *The End Of Night: Searching For Natural Darkness In An Age Of Artificial Light* chronicles both the scientific and mythic consequences of the fact that "some two-thirds of Americans and Europeans no longer experience real night-that is, real darkness-and nearly all of us live in areas considered polluted by light."

4. Seven new lifts are entirely unnecessary. We already have big gleaming lifts that blind you at the bottom of Teton Valley. It's not attractive. Also, how does that impact birds and wildlife?

It seems like Grand Targhee is just trying to compete with Jackson Hole Mountain Resorts 13 lifts, where they charge hundreds of dollars just for a day ticket and thousands for a season pass. Is this helping our economy and the locals?

5. 348 acres of terrain development and 325 acres of glading. An impact study of all current terrain and proposed terrain needs to be studied.

A 2005 study published in the "Journal of Applied Ecology" details the detrimental effects of ski resorts on existing alpine vegetation. The research team reported that snow-grooming machines and artificial snow-making cause irreparable damage to soil and vegetation. Christian Rixen, one of the researchers, told "The Guardian" that some resorts infuse their artificial snow with salt to make the runs faster for skiers. Soil and plants suffer from this salt and other snow-making products and procedures.

In North American ski resorts, the most skiable terrain is located in forested areas, requiring a large amount of clear-cutting to create ski trails. The resulting fragmented landscape negatively impacts habitat quality for many bird and mammal species. One study revealed that in the forest remnants left between slopes, bird diversity is reduced due to a negative edge effect; wind, light, and disturbance levels increase near the open slopes, reducing habitat quality.

A recent expansion of a ski resort in Breckenridge, Colorado, prompted concerns that it would damage Canada's lynx habitats.

6. 57 more acres of snowmaking.

Climate change has reduced the annual snowfall at many ski resorts. Most ski areas experience shorter winters with more frequent thawing periods. To maintain services to their clients, ski areas must make artificial snow to have adequate coverage on the slopes and around the lift bases and lodges. The economic health of a resort depends on its snow depth. If the snow base falls below a certain level, resort managers must use artificial snow-making systems. The artificial snow-making process demands an abundance of water and energy. When the water is taken from the local rivers and streams, it harms the surrounding ecosystem. Massive condominium and restaurant development in and around ski areas further exacerbates the water-use problem.

Artificial snow is made by mixing large volumes of water and high-pressure air, meaning the demand skyrockets for water from surrounding lakes, rivers, or purpose-built artificial ponds. Modern snowmaking equipment can easily require 100 gallons of water per minute for each snow gun, and resorts can have dozens or even hundreds in operation. For example, at Wachusett Mountain Ski Area, a modest-size resort in Massachusetts, snowmaking can pull as much as 4,200 gallons of water per minute.

7. Resort skiing is an energy-intensive operation, relying on fossil fuels, producing greenhouse gases, and contributing to global warming. Ski lifts usually run on electricity, and operating a single ski lift for a month requires about the same energy needed to power 3.8 households for a year.

To maintain the surface of the snow on the ski runs, a resort also deploys a nightly fleet of trail groomers, each operating on about 5 gallons of diesel per hour and producing carbon dioxide, nitrogen oxides, and particulate emissions.

8. Road rehabilitation in improve maintenance and circulation and eliminate steep grades.

Ski resorts have two options for creating new trails. They develop cleared runs by cutting and removing tall woody vegetation but keeping the topsoil and its seed bank intact. In contrast, graded runs are cleared, then bulldozer graded to remove tree stumps and any sort of slope irregularity. This process reduces topsoil depth and causes soil erosion -- but ski-resort managers like to boast early season openings and bulldozing provides the fastest method of clearing a ski trail. Because a bulldozed trail requires 20 inches less snow to open, this is a widely used process at many resorts. While the ability to open a week earlier than the competition helps the bottom line, higher summer maintenance costs might offset the added revenue, according to a UC Davis study.