

SOCIAL IMPACTS OF EXPANDED SKI RESORT OPERATIONS ON FOREST SERVICE LANDS

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The GNAR Initiative team is doing work like this to help gateway communities anticipate, plan for, and respond to development challenges. Community leaders can reach out to [the GNAR team](#) to discuss specific ways that the team can work to develop solutions to their planning and development challenges.

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Introduction

The Grand Targhee Resort has submitted an application to the USDA Forest Service to expand the operations of the resort in an effort to “improve the recreational experience and address shortcomings in their terrain offerings and operations in order to remain viable in the competitive destination skier/rider market.” Expanded resort operations would involve:

- expanding the operational boundary of the special use permit under which the Resort operates;
- adding, replacing, and realigning ski lifts;
- building new infrastructure (roads, restaurants, cabins, etc.); and

- constructing new trails to support summer recreational activities.

Local stakeholders are concerned the expanded ski resort operations will lead to significant and possibly irreversible impacts to their social and economic characteristics of the nearby communities. The Forest Service is now soliciting comments on the proposed actions in an effort to identify possible and likely impacts that need to be considered in subsequent environmental analyses.

The purpose of this document is to catalog and describe how the USDA Forest Service has assessed the socioeconomic impacts associated with expanded ski resort operations on Forest Service lands in the past.

Methods

We systematically searched online databases and search engines to develop a comprehensive list of known cases where a private ski resort operator has expanded the operations of their resort. We only included cases in which the plans for expanded operations led to the development of either an Environmental Impact Statement or and Environmental Assessment. We also only included cases in which the ski resort was operating under a special use permit issued by the USDA Forest Service.

Each of these assessment documents was subsequently screened to identify how the possible socioeconomic impacts of expanded ski resort operations had been documented. We systematically identified impacts noted in each EA/EIS by reading the “Affected Environment and Environmental Consequences” section of each report[1].

Results

Similar Cases of Expanded Ski Resort Operations around the Western US

Our searches returned 24 unique cases from resorts scattered across the Western U.S. (Table 1). These cases were documented in 20 EISs and 4 EAs. The details of these assessments are [available online](#).

The expansion of ski area operations is not unique to the Grand Targhee Resort. There have been many other cases around the Western U.S. where ski resort operators have expanded their operations on USDA Forest Service lands.

Table 1. Cases where ski resorts have expanded their operations on Forest Service lands via an Environmental Impact Statement or and Environmental Assessment.

Ski Resort	Proposed Action
Alpine Meadows Ski Area - Olympic Valley, CA	Gondola construction
Alta Ski Resort* - Alta, UT	Building, parking and tram construction
Arizona Snowbowl - Flagstaff, AZ	Snowmaking infrastructure, building, parking and lift construction
Breckenridge Ski Resort - Breckenridge, CO	Lift and trail construction
Copper Mountain Resort - Frisco, CO	Snowmaking infrastructure, lift construction
Crested Butte Mtn. Resort - Crested Butte, CO	Lift and trail construction
Crystal Mountain - Crystal Mountain, WA	Lift construction
Eldora Mountain - Nederland, CO	Snowmaking infrastructure, building, parking and lift construction
Keystone Resort* - Keystone, CO	Snowmaking infrastructure, building, parking and lift construction
Kirkwood Mountain - Kirkwood, CA	Building construction and associated infrastructure
Lake Catamount - Steamboat Springs, CO	Building, parking, and lift construction
Lee Canyon - Las Vegas, NV	Snowmaking infrastructure, building, parking and lift construction
Lookout Pass Ski and Recreation Area - Mullan, ID	Building, parking and lift construction
Mission Ridge Ski & Board Resort - Wenatchee, WA	Building, parking and lift construction
Mt. Bachelor - Bend, OR	Building, parking and lift construction

Mt. Ashland - Ashland, OR	Building, parking and lift construction
Mt. Rose Ski Tahoe - Reno, NV	Building, parking and lift construction
Snow King Mountain Resort - Jackson, WY	Snowmaking infrastructure, building, parking and lift construction
Solitude Mountain Resort - Solitude, UT	Snowmaking infrastructure, building, parking and lift construction
Steamboat Ski Resort - Steamboat Springs, CO	Building, parking and lift construction
Vail - Vail, CO	Snowmaking infrastructure, building, parking and lift construction
Tamarack Resort - Tamarack, ID	Building, parking and lift construction
Purgatory Resort* - Durango, CO	Lift construction
Aspen Snowmass Ski Resort* - Snowmass Village, CO	Snowmaking infrastructure, and lift construction
*EA, all other assessments are EISs.	

Socioeconomic Impacts of Similar Cases

Each assessment documented just under eight unique socioeconomic impacts (*mean* = 7.96; *std. dev.* = 3.41). Across all 24 environmental assessments evaluated, we identified 16 unique socioeconomic impacts associated with the expansion of ski resort operations on USDA Forest Service lands (Table 2).

The most frequently identified socioeconomic impacts were impacts to existing recreational opportunities and aesthetic impacts. Each of these impacts were described in nearly all (95.8%) of the assessments we reviewed. The expansion of ski resort operations on USDA Forest Service lands has almost always resulted in impacts to existing recreational opportunities and the scenic quality of forest lands.

Other impacts noted in the majority of assessments evaluated included:

- impacts to cultural and historic resources (noted in 79.2% of reviewed assessments);
- impacts to traffic and parking (70.8%);
- impacts to the local economy (54.2%);
- impacts to local employment (50%); and
- impacts to local population levels (50%).

The frequencies with which each socioeconomic impact of expanded ski resort operations on USDA Forest Service lands appeared in previous EAs and EISs are shown in Figure 1.

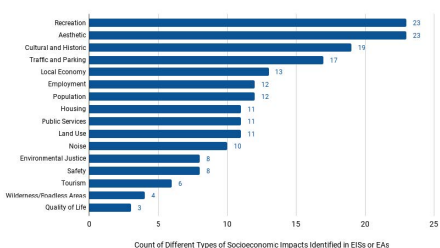


Figure 1.

Socioeconomic Impacts of Expanded Ski Resort Operations on Forest Service Lands

Our review of similar ski area expansion projects suggests that there are likely numerous socioeconomic impacts associated with expansion. Impacts to existing outdoor recreation opportunities and the aesthetic qualities of forestland seem almost a given. Impacts to local economies, employment opportunities, population levels, availability and affordability of housing, and public services and dominant land uses in nearby communities are all common concerns as well.

Description of Impacts

Recreation. Ski area expansion on Forest Service lands can have a variety of impacts to the outdoor recreation opportunities offered on forestlands. The agency is required to provide a diverse array of outdoor recreation opportunities within each forest; following the Recreation Opportunity Spectrum zones delineated in a forest plan. The expansion of ski area operations into terrain managed to provide ‘primitive’ outdoor recreation opportunities may limit the ability of the public to have those types of experiences.

The construction of new buildings, chairlifts, pipelines, and roads may also have significant and negative impacts on the outdoor recreation opportunities offered on forestlands. This is particularly true for summer opportunities that occur outside of existing special operating permit boundaries.

The expansion of ski area operations may also influence the ability of a ski resort to provide adequate facilities to meet what is assumed to be increased level of demand.

Aesthetic. The aesthetics of forestland has also been a major point of concern in previous ski area expansion projects. Construction and site development will likely significantly alter existing views provided from (and of) the mountainside. Concerns often cited in previous expansion projects focus on the potential impacts of grading, vegetation, and the construction of new vertical elements on the landscape (e.g., buildings, chairlifts, etc). These impacts are often considered significant. Ski area operators are frequently required to rehabilitate and revegetate areas of the landscape impacted by ski area expansion and/or development in order to minimize aesthetic (as well as environmental) impacts. The amount of impacts to a forest’s visual resources is based on the size and extent of the expansion and/or development project as well as the extent of required mitigation actions.

Cultural and historic resources. The construction of new buildings and roads could damage cultural and historic resources on forestlands. Additionally, an increased volume of dispersed recreation may also lead to an increase in trampling and the collection of artifacts, which could impact the cultural and historic integrity of the area. Cultural and historic preservation groups should be consulted to identify development and management plans that minimize the possibility of these impacts.

Traffic and parking. The construction of roadways and buildings will likely result in temporary impacts to the type and volume of traffic in nearby communities. Long-term impacts would result from an increased volume of recreational use on forestlands. Impacts consistently noted in the environmental assessments that we reviewed include a higher volume of traffic and reduced parking availability. Less frequently mentioned impacts include more illegal and unsafe parking, a greater risk for collisions between pedestrians/cyclists and vehicles, and an increased burden on local law enforcement and emergency services.

Local economy (employment). Of the environmental assessments which did mention ski area expansion would impact the local economy, the most frequently noted impact was an increase in employment within businesses related to travel and tourism. These businesses include retail trade (e.g., hardware and drug stores), food services (e.g., restaurants), food and beverage stores (e.g., grocery stores), gas stations, and real estate, rental and leasing businesses (e.g., realty and property management companies).

Employment, Population, Housing, and Public Services. Ski area expansion projects can affect the total population and housing of nearby communities. There are two concerns present in the EISs and EAs we reviewed. First, the majority of ski area employees are seasonal, supporting the high levels of demand seen in the winter months. These jobs are almost exclusively done by low-wage employees who are not residents of nearby communities. Consequently, ski area expansion projects that depend on large amounts of seasonal labor will lead to a greater proportion of the local population being comprised of individuals employed in these types of jobs. The second concern present in the EISs and EAs we reviewed was long-term population growth. Expanded ski area operations may lead to an increased demand for individuals to relocate to nearby communities. This demand often outstrips the supply of existing housing, leading to an increase in local property values. Rising property values may price some current residents out of living in nearby communities if they are unable to pay the taxes on their properties. The increased demand for housing to accommodate both an influx in seasonal employees and long-term residents can stress existing transportation infrastructure and utilities (e.g., wastewater treatment, etc.) in the near-term until communities are able to realize the financial returns generated by increased property and sales tax revenues.

Land Use. An increased demand for residential housing was a common concern across the environmental assessments we reviewed. These concerns focused on the impact that ski resort development and expansion had on the conversion of agricultural and grazing lands into residential development. The residential development value of property often outpaced appreciation in revenues realized by farmers and ranchers in their operations. The transition of local landscapes from farmland and open pastures to those that are characterized by small-to-medium size ranch lots was a common impact associated with ski area development and expansion.

Noise. Construction and development operations have the potential to influence existing soundscapes. Previous environmental impact statements frequently mentioned concerns about increases in noise levels local communities, on private land, and in other portions of the national forest. Noise generated by the construction of roads and buildings is a short-term impact limited to a few summers. However, the noise generated by facilities maintenance and an increased volume of visitors is a persistent impact. Increased traffic in nearby communities may lead to higher noise levels in those communities, degrading local residents' quality of life. Ultimately, noise levels will be determined by project size, equipment used,

and the amount of increased recreational traffic, among other factors.

Environmental Justice. Environmental justice addresses concerns that federal decisions could disproportionately impact individuals based on socioeconomic factors such as race, gender, socioeconomic class, ethnicity or cultural heritage, among others. All federal agencies are required to consider environmental justice issues in their decision making under Executive Order 12898, which states that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."

The expansion of ski area operations may have indirect consequences for environmental justice in surrounding communities. The increase in home and property values as well as rents that often accompany ski resort development and expansion on Forest Service lands may disproportionately impact low-income residents living in Teton County (ID). Rising rental prices may make it difficult for low-income residents to continue to live within the county, potentially causing them to look for housing in adjacent communities. Similarly, rising housing prices and property values may price low-income individuals and families out of the local market. For Teton County (ID), these effects are likely to be compounded given a growing proportion of the labor market serving the Jackson area have already moved to Teton County (ID) in search of affordable housing.

Safety. Expanded ski area operations may lead to three potential impacts to safety: increased summer outdoor recreation use and associated safety risks; increased concerns over skier safety and avalanche hazards; and a reduced effectiveness of local emergency response personnel.

Regarding the first potential impact, the forest already supports a diverse array of summer outdoor recreation activities in and adjacent to the Grand Targhee's proposed area of expanded operations. As such, there's the possibility that new roadways and trails could create additional collision risks beyond those already present on the forest.

Regarding the second potential impact, a larger amount of skiable terrain will lead to greater risks to skier safety and avalanche hazards. These risks can be mitigated through increases in on-mountain safety operations as well as avalanche hazard mitigation efforts.

Finally, increased traffic and use of the area may negatively affect the response times and effectiveness of emergency response personnel (e.g., search and rescue, fire fighters, emergency medical technicians, etc.).

Tourism. Ski area expansion will likely increase the appeal of and travel to the resort and nearby communities. All of the possible impacts associated with an increase in travel and tourism (e.g., impacts to the local economy, impacts to traffic and parking, etc.) are described as independent impacts in environmental assessments and described under their respective headers in this document.

Wilderness/Roadless Areas. Impacts to designated Wilderness or roadless areas on forest service lands were occasionally mentioned in the environmental assessments we reviewed. These impacts were often related to the ability to experience solitude or primitive and unconfined recreation in designated Wilderness areas. The expansion of the Grand Targhee Resort will likely not have any impacts to designated Wilderness or roadless areas given no portion of the proposed special use permit adjustment would occur in areas classified as designated Wilderness.

Quality of Life. Ski area expansion could influence changes in the quality of life for residents living in nearby communities. Across the environmental assessments we reviewed, noted impacts included: impacts to community structure that were perceived to be undesirable by current residents; an erosion of community identity; and a loss of sense of place.

[1] Required by the National Environmental Policy Act to be included in EAs/EISs as chapter or section 3.