

# **Response to Comments**

## **Taos Ski Valley's 2010 Master Development Plan—Phase 1 Projects**

**Questa Ranger District  
Carson National Forest  
Taos County, New Mexico**





# Response to Comments

## Air

### Unique

- 1. All construction activities have the potential to emit air pollutants and we recommend best management practices (BMPs) be implemented to minimize the impact of any air pollutants. Furthermore, construction and waste disposal activities should be conducted in accordance with applicable local, state, and federal statutes and regulations. EPA encourages the use of clean, lower-emissions equipment and technologies to reduce pollution. EPA's final Highway Diesel and Non-road Diesel Rules mandate the use of lower sulfur fuels in non-road and marine diesel engines beginning in 2007.*

The Forest Service has identified BMPs for the Phase I Projects specific to protecting air quality in table 2 (chapter 2) of the Final Environmental Impact Statement (EIS). As stated on page 13 of the Final EIS, 40 CFR 1502.25(a) directs “to the fullest extent possible, agencies shall prepare draft environmental impact statements concurrently with and integrated with other environmental review laws and executive orders.” As such, implementation of any approved projects from this Final EIS would be conducted in accordance with applicable local, state, and federal statutes, including those that pertain to air quality: the national Clean Air Act (CAA), New Mexico Environment Department’s Air Quality Bureau (AQB) requirements, National Ambient Air Quality Standards (NAAQS), NAAQS for particulate matter (PM<sub>10</sub>), and the Prevention of Significant Deterioration (PSD) Total Suspended Particulate (TSP) increment for Class 1 and 2 areas (Final EIS, p. 107).

In addition to the BMPs presented in the Draft EIS, a new BMP was added to the Final EIS which states, “Idling of construction vehicles will be minimized to the extent practicable” to reduce vehicle emissions.

## Suggested Alternatives

### Thematic

- 2. In general, improvements at TSV should expand the diversity of recreational activities, so that family members and larger groups of friends can enjoy the local setting through snowshoe trails, mountain bike trails, cross-country ski trails or even an outdoor skating rink in the Ski Valley area.*

The proposed tubing center, mountain bike trail, and snowshoe trails are proposed in response to identified needs and opportunities on private and public lands at TSV. In the future, if TSV proposes additional alternative recreation projects on National Forest System (NFS) lands, site specific analysis in compliance with the National Environmental Policy Act (NEPA) will be required.

- 3. There should be a 4th alternative that includes some of the components from Alternative 2.*

The CEQ implementing regulations for NEPA at 40 CFR § 1505.1(e) require, “the alternatives considered by the decision maker are encompassed by the range of alternatives discussed in the relevant environmental documents and that the decision

maker consider the alternatives described in the environmental impact statement.” In other words, the responsible official may make a decision taking some of the components from alternative 2, as long as the effects of the decision have been analyzed and disclosed in the EIS.

## Unique

- 4. *I feel a surface lift below tree line to cabin chute would be a compromise to Main Street.***

A surface lift below tree line to Cabin Chute would only service expert terrain, which would not meet all of Purpose and Need #1. Further, lift serving Cabin Chute and subsequently the chutes north on Highline Ridge would lift-serve some of the most accessible and popular hike-to terrain at TSV.

- 5. *I believe an alternative would be to build a lift on the WW glade side, from near the bottom of chair 8, topping out in the glade below the West Basin ridge, leaving a short hike from the lift for those desiring to ski WB steeps. WW glade would be accessed via a single lift (in the glade), with far less chance of lower level skiers/riders venturing on to WB steeps.***

A lift from the bottom terminal of Chair 8 to the glade below West Basin Ridge would be largely redundant with Chair 8, serve a very small amount of terrain and would not provide lift service to the 31.6 acres of terrain in the West Basin Glades, therefore it would not help meet Purpose and Need #2, to improve access to treed portions of the existing SUP area. Proper signage at the bottom terminal of any new lifts would inform guests of the terrain ability levels that it serves.

- 6. *I believe expanding the terrain park is in everybody's best interest.***

Expansion of the TSV terrain park is beyond the scope of this analysis. If, in the future, TSV chooses to pursue expansion of its terrain park, the Forest Service will determine what, if any, level of NEPA analysis is required.

- 7. *I would like to see Taos expand the inbounds skiable terrain by opening up more gladed areas between runs. The slope between Al's and Rhoda's is a good example. This has a beautiful fall line and just needs thinning to make it skiable. Making more glades like the Minnesotas and Wild West is one of the least expensive ways to improve Taos and uphold its reputation as a steep resort with lots of tree skiing.***

Numerous opportunities exist throughout the SUP area for improving glades. However, at this time, TSV has identified the Minnesotas and Wild West areas as having the most potential for improving upon, while maintaining, the ski area's reputation for fun and challenging terrain.

- 8. *The 2 new lifts should be T-bars or Pomas because they are less expensive and they are meant only for better skiers, so this will limit the number of beginners from going somewhere that will get them into trouble. Also, the lift capacity of these is less than with chairs so the terrain will be less likely to be “skied out.”***

Surface lifts—such as T-bars or platters—are appropriate for some types of terrain. However, due to the topography and steepness of Main Street and West Basin Ridge, surface lifts are not an option. Chairlifts have been determined to provide the appropriate capacity for the terrain. TSV may increase spacing between chairs to maintain a comfortable number of people on the terrain.

- 9. *Please modify the Phase I alternatives to increase habitat protection and reduce impacts.***

In preparing the 2010 Master Development Plan for TSV, the ski area identified its goals and opportunities for future management within its special use permit area. For example, the MDP includes more glading to create new trails than open trails that require clearcutting. Glading can improve wildlife habitat and reduce impacts to water and soils. In designing the proposed action of Phase 1 projects, TSV selected those actions it determined could be implemented over the next ten years. Staging project implementation is a method of protecting habitat and reducing impacts.

In addition, when the proposed action went out for comment, it became evident the location of the proposed snowtubing area component of the Adventure Center would impact approximately 5 acres of undisturbed forest, on the south side of the Rio Hondo near the Village of TSV’s water treatment plant. The location of the proposed Snowtubing Center was moved up to Strawberry Hill, where snowtubing already occurs and less than 0.5 acre of vegetation would be impacted for the run outs. This modification of the proposed action was made specifically to reduce environmental impacts (Final EIS, chapter 1).

When significant issues are raised by the public during scoping, NEPA requires an agency to develop alternative(s) to the proposed action (40 CFR 1501.2[c]). Alternative 3 was developed to address significant issues, which included the proposed action’s potential to negatively impact habitat and other elements of the environment (Final EIS, chapters 1 and 2).

Finally, mitigation measures have been incorporated into the action alternatives to minimize potential effects implementation may cause (Final EIS, chapter 2).

- 10. *Why not totally redesign the flow of cars and shuttles to the parking area? Patrons with ski tickets and passes could park in the lower lot and they can ski right to lift 3 (and over to lift 1) from their cars (with some modification of the current terrain and moving the tubing center elsewhere); this lot would not be serviced by the shuttle and also could serve as the drop off for ‘ready to ski’ passengers. Guests needing to buy tickets/passes would be directed to the other parking lots, which would be serviced by the shuttles. Optimize the services for regular patrons, while improving the services for visitors.***

This Alternative was considered, however it was eliminated from detailed study (Final EIS, p. 32) for several reasons: 1) current services in the base area, on private lands, are

already established and redesigning them to allow for ski access is outside the scope of Forest Service authority; 2) Lift 3 is a small fixed grip double that plays an important role in facilitating access to popular beginner terrain, routing guests onto Lift 3 would overburden the capacity of the existing lift; 3) skiing directly to Lift 1 (thereby not requiring an upgrade to Lift 3) would require extensive grading and lowering the bottom terminal of Lift 1 in order for it to be accessible by guests skiing from the parking lots, and 4) the reconfigured parking lot design would improve circulation through the parking lots, while balancing the number of parking spaces necessary to accommodate existing and future visitors. In addition, rerouting day skiers to Thunderbird Road is designed to improve the sense of arrival at TSV.

## Purpose & Need

### Thematic

- 11. It is not clear that installation of additional lifts and terrain would result in increased visitation at TSV. There appears to be a strong correlation between snowfall and user numbers at TSV, and snowfall in New Mexico has been declining over the last decade and may continue to decline in the future due to climate change. In addition, the examples of increased skier use from the EIS were located near large, relatively affluent population centers, not at destination resorts like TSV.***

The Recreation section of the Final EIS explains that the total guest experience at any ski area is defined by many factors, including, but not limited to, terrain variety, the lift network, dining and guest services, and snow quality. Beyond any one variable to the overall guest experience, long-term trends in annual visitation are defined by the overall value that guests perceive and the quality of the experience in general. Therefore, snowfall is important, but it is simply one factor that contributes to the overall guest experience (which is defined by many factors, including, but not limited to, terrain variety, the lift network, dining and guest services, and snow quality) at a resort and does not, in and of itself, dictate trends in long-term annual skier/rider visits. Therefore, while snowfall is an important consideration, the fact that TSV made no major infrastructural or terrain improvements across the late 1990s and the 2000s must be taken into consideration.

- 12. The ski area needs to work on providing more novice and intermediate terrain; most of TSV's visitors are not expert skiers. Intermediate skiers and snowboarders are not being served by the infrastructure on Kachina Peak and West Basin Ridge lifts.***

The 2010 TSV Master Development Plan illustrates a relatively close match between existing intermediate skier distribution and TSV's intermediate skier market. Although TSV offers the most advanced intermediate terrain of any resort in New Mexico, there is an identified shortage of advanced intermediate terrain when compared to market demand (Final EIS, p. 45). The topography of the mountains that make up TSV is generally steep and much of the advanced intermediate slopes have already been developed and incorporated into the existing terrain network. As identified in TSV's accepted 2010 Master Development Plan, the terrain served by the proposed Main Street Lift would offer both advanced intermediate and expert slopes, making it "suitable for a range of ability levels."

- 13. *The “hikers-only” expert ski terrain is an integral part of what differentiates Taos Ski Valley from their competition. TSV has cultivated their image as a world-class ski area in large part through the allure of experts-only, hike-to terrain of “The Ridge.” Those visitors that come to TSV because of the unique skiing experience will be driven away.***

The Forest Service and TSV fully acknowledge that hike-to terrain helps to distinguish TSV from other ski areas across the western United States. The Forest Service also recognizes that, as a family owned resort that has been in operation since 1956, TSV understands its clientele, in addition to what it takes to remain viable in an increasingly competitive ski industry. Generally, visitors to a ski area expect to ride lifts to access a majority of the terrain and lift serving terrain within a ski area benefits more people than it displaces.

By design, alternative 2 retains some of the most popular hike-to terrain on Highline Ridge (between Hildago and Cabin Chute), and on West Basin Ridge (between Spitfire and Sauza), while improving access to more difficult to reach terrain. Overall, approximately 48 percent of TSV’s hike-to terrain (approximately 102 acres) would remain hike-to only and would continue to meet the demand for hike-to terrain. Although the other 52 percent of the existing hike-to terrain would be accessed by lift, it would also continue to allow access by hiking.

- 14. *Many of my friends, and many of the people I meet on the chairlifts while skiing are capable of skiing any terrain in Taos, but most of these people do not hike because either: 1. The time spent hiking causes a significant reduction in the number of runs they can take, or 2. The physical effort involved in the hike reduces the amount they will be able to ski during the day.***

As discussed on pages 52 through 54 of the Final EIS, Alternative 2 would increase TSV’s network of lift-served, undeveloped terrain by 249 percent over existing conditions, from approximately 74 acres to 258 acres. The proposed Main Street and Ridge Lifts would improve access to large underutilized portions of TSV’s terrain, thereby increasing the number of runs/vertical feet that guests can make in a single day.

## Unique

- 15. *Due to the exposure of winds and avalanches and the amount of snow needed to open “the Peak,” I feel any “claimed” benefit of a lift here would be limited due to those conditions.***

As discussed in the Recreation Analysis, Taos Ski Valley qualifies as a Class A Site: High Avalanche Hazard. With over fifty-five years of experience in conducting snow safety activities throughout its SUP area, TSV has an excellent understanding of the topography and snow conditions that exist. As stated in the Recreation Section (Final EIS, pp. 53-54), lift-serving Kachina Peak would improve TSV’s capacity to perform snow safety operations, as well as increasing snow compaction for a more consistent, consolidated snowpack. Taos Ski Valley management anticipates, in most seasons, Kachina Peak could be open in time for the holidays and would remain open through the end of the season.

**16. *I personally have not had any long waits in lines for any of the lifts.***

Long lift lines at TSV are generally encountered on peak days and busy weekends, especially in the morning when people first arrive at the mountain and after lunch when skiers want to get back on the mountain. On weekdays and non-peak weekends, daily visitation is typically below the capacity of the resort and long lift lines are relatively uncommon.

**17. *At most, this lift will provide additional skiing opportunity to only 80 visitors per average weekend day (Draft EIS, p. 53). TSV already has the terrain and the skiing experience to advertise 3,000 ft skiable terrain, and to attract more visitors.***

The commenter is referring to the following sentence on page 53 of the Final EIS: “Based on the previous estimation of hikers who ascend Kachina Peak on a typical weekend day during the ski season (approximately 4 percent of visitors), lift-serving Kachina Peak would negatively affect the recreational experience of around 80 people on an average weekend day, compared with alternative 1.” This sentence is referring to the approximately 80 hikers that may be displaced by construction and operation of the Main Street Lift. In fact the lift would be built with a capacity of 1,200 people per hour and would likely run at capacity on weekends, during holiday periods and spring break. It will likely receive a high level of use during the periods of fresh snow and good skiing conditions through the season, however TSV may increase spacing between chairs to maintain a comfortable number of people on the terrain.

**18. *If the Forest Service accepts the industry’s premise now; and since they have apparently fallen for climate change, what is to stop them from approving snowmaking on Kachina in the future to protect the Investors?***

Neither TSV nor the Forest Service anticipates snowmaking would ever be necessary or proposed on Kachina Peak. Snowmaking on Kachina Peak is not included in TSV’s 2010 Master Development Plan, and would require a considerable extension of infrastructure and analysis in compliance with NEPA.

**19. *There is no indication these might be considered as necessary: a) An overnight facility for LM/LO to prepare for next day. B) Ski Patrol must have their best equipped station at the top of the highest lift. Since this lift will profoundly affect artillery avalanche control practices on Kachina Peak, Patrol will probably need people present overnight to accomplish control work on those days.***

Alternative 2 proposes a 250-square foot ski patrol facility at the top terminal of the Main Street Lift. This would accommodate infrastructure for staff, medical equipment, and other gear necessary to conduct avalanche control and provide for the safety of skiers. Overnight use of this facility is not anticipated.



- 20. *Because this analysis area is National Forest (i.e. public lands) The Forest Service has a legal responsibility to put resource protection as a priority. However the whole tone of the Draft EIS and purpose and need is TSV skier satisfaction, access, competitive business climate, etc. Because we disagree that this purpose and need complies with NEPA, the Carson Forest Plan, NFMA, Clean Water Act and other direction both federally and locally - the analysis is biased from the beginning.***

The Forest Service has an obligation to manage NFS lands for multiple uses. The 1986 Carson Forest Plan identifies the entire TSV SUP area as Management Area (MA) 16 – (Developed) Recreation Sites. This means the area is allocated to be specifically managed as a developed ski area. Therefore, the Carson Forest Plan’s management direction for the TSV permit area is inherently focused on providing the resources necessary to maintain a ski area. Under MA 16, the plan prescribes ski areas be administered “in accordance with the direction in the Master Development Plan.”<sup>1</sup> TSV provides a valuable source of developed winter recreation on public lands. The Forest Service recognizes the types of developed recreational opportunities afforded at TSV would not be possible unless provided by a private entity.

The purpose and need for a proposed action originates from a disparity between the existing and desired conditions for the area and establishes the scope of the analysis. The Vision for MA 16 is, “All the developments are high quality and well maintained. They fill the needs of the users.”<sup>2</sup> In its MDP, TSV has determined its existing condition does not meet this vision and there is a need to improve the quality of the experience at TSV for its users. The TSV Phase 1 projects are proposed to meet this need.

The purpose and need may seem biased to some, but it is consistent with the Carson Forest Plan for MA 16 and the Forest Service’s multiple use mission. The Carson National Forest (NF) is not forfeiting its responsibility to comply with law, regulation, and policy, when proposing to authorize projects on NFS lands. The EIS discloses how the effects of the proposed actions meet legal requirements and are consistent with the forest plan.

Surrounding TSV’s 1,268-acre SUP area are over 50,000 acres allocated as MA 17- Wilderness in the Carson Forest Plan, where the Carson NF must maintain primitive characteristics and no development is permitted. These wilderness areas were designated by Congress to protect biological diversity, undisturbed habitat, watershed function, and an experience of solitude.

## **Climate Change**

- 21. *This proposal must be analyzed in the context of adaptation to climate change.***

TSV’s contribution to climate change was addressed in the Air Quality section of the Draft EIS in accordance with Council on Environmental Quality Guidance. In addition, the Final EIS has been updated to include the following information in regards to the

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<sup>1</sup> Carson National Forest, 1986 Chapter D Recreation Sites-4

<sup>2</sup> Ibid. Chapter D Recreation Sites-1

effects of climate change on TSV's operations (specifically pertaining to proposed projects):

- The two new alpine lifts would service ski terrain at higher elevations, where the longevity of snow quality and quantity is more predictable. Kachina Peak and much of the ridge has quality snow conditions long after the end of TSV's ski season;
- Gladed terrain screens snow from sun and wind exposure; thereby extending snow quality and quantity despite less predictable temperatures and snowfall;
- The Snowtubing Center would allow TSV to concentrate another winter recreation use in a small area where snow conditions can be regulated; and
- Alternate recreation opportunities such as the Mountain Bike Trail for summer use would improve the off-season (snow-free) recreation opportunities.

## Unique

- 22. *Amigos Bravos has suggested to TSV that they become involved in working to address the causes of climate change, as we believe climate change and its impacts on snowfall is the major factor in declining business.***

Refer to the response to comment #11 under Purpose and Need above for a discussion of snowfall, new terrain, and visitation. In addition, TSV's contribution to greenhouse gas emissions are discussed in depth on pages 111–117 of the Final EIS. To minimize TSV's contributions to greenhouse gas emissions and global climate change, TSV offsets 100 percent of its energy use with renewable energy credits, offers a program where visitors can offset 150 miles of their travel with wind energy, and supports ecotourism within the New Mexico Tourism Department. Within their operations and maintenance programs, TSV prohibits idling of construction vehicles for prolonged time periods and provides recycling options throughout the resort to reduce emissions and waste.

- 23. *Climate change is likely to cause droughts in the Southwest to become more frequent and severe. Moreover, "mid- to high-elevation forests and woodlands have experienced consistently warmer and drier conditions or greater variability in temperature and precipitation from 1992 to 2005" which, if continued, may render these environments "most susceptible or vulnerable to ongoing climate change." Despite these facts, TSV is not doing its part to implement policies that reduce TSV's impact on climate change. Ski Area Citizens' Coalition gave TSV a "D" on its annual report card, notably giving it a 32 percent for its failure to address climate change. TSV's practices have landed it on the "Worst Ten" list of ski areas.***

Climate change and TSV's contribution to climate change was addressed in the Air Quality section of the EIS in accordance with Council on Environmental Quality Guidance, including the Forest Service documents "Climate Change Considerations in Project Level NEPA Analysis" and the Council on Environmental Quality's document "Draft NEPA Guidance on Consideration of the Effects on Climate Change and Greenhouse Gas Emissions."<sup>3</sup> Also, refer to response to comment #22 for the ways TSV minimizes greenhouse gas emissions.

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<sup>3</sup> USDA Forest Service, 2009; Council on Environmental Quality, 2010

The Ski Area Citizens' Coalition Ski Area Environmental Report Card is a third-party tool used to rate ski resorts' environmental policies and operations based on a range of anecdotal criteria and document review. However, the agency does not rely on this information for making decisions about proposed activities at ski areas.

## Cultural

### Unique

- 24. *By allowing the lift to go up Kachina as proposed is a very deliberate choice between the profits of one company and the natural heritage of all Americans. I believe your Draft EIS has completely overlooked the regional significance of this area and the long-lasting affects construction of the lift will bring.***

As discussed in the Final EIS (p. 90), archaeologists have conducted sample and 100 percent surveys for ground-disturbing improvements at TSV since 1979. On July 27 and September 22, 2011, the Questa District Archaeologist visited proposed project locations and completed a one hundred percent survey of ten acres associated with the proposed projects and recorded one new site.

Pages 8 through 10 and 90 of the Final EIS provide information about Forest Service and TSV consultation with Taos Pueblo. Both the Forest Service and TSV have ongoing meetings with Tribal officials to discuss and manage issues that may arise from operations on lands surrounding the Pueblo, including potential trespass issues. In addition, page 92 of the Final EIS explains that the lift would not run in the summer for public access. Further the distance and topography between TSV and Tribal lands would discourage access onto Tribal lands, as would a communication strategy for guests and resort operations to avoid trespassing issues. The Main Street lift alignment would be completely within TSV's existing SUP boundary administered by the Forest Service for a developed recreation site and would not operate during the summer. The location of top terminal of the lift would require an approximately 5-minute hike to reach the ridgeline, further discouraging users from leaving the SUP area. No alternative would impact Tribal lands (Final EIS, p. 92).

- 25. *Increasing summer use of TSV is also a concern and the Draft EIS needs to take a much harder look at this proposal. Mountain bike incursion into TSV forest in the summer will threaten Taos Pueblo tribal lands trespass issues.***

Refer to response to comment #24. The only lift operated during the summer is Lift 1 which runs at the north end of the ski area, taking hikers to the top of Al's Run, approximately 6,000 feet from the southern boundary of the ski area. Currently, mountain biking is very limited within the SUP area and there is no lift access available for people with bikes. The proposed mountain bike trail would also originate at the top of Lift 1, and would lead north, away from Tribal lands.

- 26. *In the Final EIS please discuss how the preferred alternative might bring users of the TSV into closer proximity with cultural resources and how those resources will be protected***

Refer to the response to comment #24. In addition, pages 91 and 92 of the Final EIS discusses previously recorded/potentially eligible sites and how implementation of project design criteria and best management practices would avoid or protect them from direct effects.

- 27. *Placing lift towers and having many more people closer to Pueblo lands is not recommended.***

Refer to response to comment #24.

- 28. *The location of your project has been cross referenced with the Comanche Nation site files, where an indication of “No Properties” have been identified.***

The comment is appreciated and noted.

## Cumulative Impacts

### Unique

- 29. *NEPA requires a hard look at the impacts of a proposed action upon all forest resources and users, including the cumulative effects of the proposed action. The Draft EIS really fails in this regard. Because the area being analyzed contains some of the best undeveloped, high altitude buffer habitat for the Wheeler Peak Wilderness, Taos Pueblo adjacent lands, Columbine-Hondo Wilderness Study Area and provides a critical habitat linkage and corridor in the South Sangres, the proposal will have a significant negative impact upon the quality, function and quantity of this habitat.***

Appendix B of the EIS identifies past, present, and reasonably-foreseeable future actions considered in the cumulative effects analysis for the entire range of physical, social, economic, and biological resources. As indicated, Forest Service resource specialists established which of these actions overlap spatially and/or temporally with the direct and indirect effects of alternatives 1, 2, and 3. An important concept in cumulative effects analysis is, if an action does not have direct or indirect impacts on a particular resource, it cannot by definition, have cumulative effects on that resource.

In addition, there is no definition or requirement for “buffer habitat” around a congressionally designated wilderness area or wilderness study area in relation to another management area, for example, Management Area 16 – Recreation Sites. For wildlife, the direct and indirect effects of the action alternatives are articulated throughout the analysis, and boreal spruce-fir forests of New Mexico (and, in particular, on the Carson NF) are used to establish the spatial context for the cumulative effects analysis. No direct, indirect, or cumulative impacts to Tribal lands in the vicinity of the proposed project areas were identified as a result of the action alternatives (Final EIS, p. 91-93).

- 30. *I find no real cumulative effects analysis in spite of significant past and projected future important habitat loss for some wildlife species. The Draft EIS states there is no***

***“Irreversible and Irretrievable Commitment of Resources.” This is probably not true of Spruce-Fir forest in our warming climate.***

According to the definition of irreversible and irretrievable effects on page 36 of the Final EIS, tree removal related to the action alternatives would represent an irretrievable commitment of resources, when considered over the life of the 40-year SUP. This commitment may not necessarily be irretrievable for some wildlife habitat within the SUP area. Glading, for instance, may improve habitat for certain species (discussed in the Vegetation and Wildlife Resources section in chapter 3 of the EIS). Regardless of the potential effects of climate change, tree removal in spruce-fir habitat for glading is not considered an irreversible commitment, because overstory vegetation is a renewable resource (Final EIS, p. 194).

Also refer to the response to comment #29 for a discussion of how cumulative effects were analyzed and disclosed in the EIS.

- 31. *We are especially concerned because this Phase I project is not the end of TSV’s development plans for this forest. The future plans call for yet more expansion into undeveloped areas, yet more trails, lifts, restaurants on the mountain, etc. chopping habitat into smaller and smaller pieces. At what point does the area become one big ski development and pine marten and lynx and other species sensitive to disturbance are caused to leave or not persist in Northern New Mexico?***

The Phase 1 proposed projects represent the bulk of projects identified in TSV’s 2010 Master Development Plan. As discussed in appendix B of the EIS, the remaining projects from the 2010 Master Development Plan include: the Summit Lift (which would provide direct conveyance between the base area and the top of Lift 2); a new beginner area on private lands at the base area; miscellaneous trail improvements and construction throughout the SUP area; and a new on-mountain restaurant at the top of Lift 2. Should any remaining projects from the 2010 Master Development Plan be accepted by the Forest Service, those projects would be required to undergo site-specific NEPA analysis.

None of the alternatives propose to “expand” TSV’s SUP area. All of the Phase 1 projects are proposed within the developed recreation site (MA 16). Also refer to response to comment #20 for an explanation of how the Carson Forest Plan allocates the uses on the Carson NF and provides management direction for those uses.

## **Ecosystem**

- 32. *I believe that lifts should not go to the top of mountain peaks that are well above treeline. Kachina Peak is still relatively wild; the emotional and environmental consequences are likely to be high. Even if environmental consequences are actually minimal, imagined environmental consequences will be uncomfortable for me and for many of the public, who may or may not appreciate skiing at all.***

The concern described in this comment was identified as a significant issue during scoping. The hike-to terrain on Kachina Peak currently provides the adventure and solitude that helps define the TSV experience. The Forest Service and TSV acknowledge the Main Street Lift would change some of the existing hike-to only terrain within TSV’s SUP area to lift-served and hike-to skiing; thereby, increasing use of Kachina Peak and

altering the current experience. Alternative 3 was developed to address this issue, by not including the Main Street Lift. Chapter 3 compares the effects of alternative 2 (with the Main Street Lift) and alternatives 1 and 3 (without the Main Street Lift) on the current experience of adventure, sense of accomplishment, and solitude for the skier who hikes to Kachina Peak.

Overall, approximately 48 percent of TSV's hike-to terrain (approximately 102 acres) would remain hike-to only and would continue to meet the demand for hike-to terrain. Although the other 52 percent of the existing hike-to terrain would be accessed by lift, it would also continue to allow access by hiking.

- 33. *I would also like to point out that any expansion or development in Twining will inevitably have a negative impact on the alpine eco-system, be it in the form of taking out living trees to accommodate additional skiing terrain, mountain bike trails and tubing runs, etc, or whatever other form this might look like (chemical, etc). I also imagine the Hondo River will be affected as a consequence.***

It is assumed the commenter's mention of "Twining" is in reference to the Village of Taos Ski Valley, which incorporates private land that is surrounded by the Carson NF. The Village has a plan, which outlines development on private land and describes how it will meet the needs of this development through its infrastructure, water treatment facilities, and services. The Village's plan is outside the scope of the analysis for the Phase 1 projects proposed within TSV's SUP area on NFS lands.

The purpose of preparing an EIS is to disclose the effects of the proposed projects (including taking out living trees for additional skiing terrain, a mountain bike trail, and snowtubing runs) on the alpine ecosystem and the water quality of the Rio Hondo. These effects are described by resource in chapter 3 of the EIS.

- 34. *Taos Ski Valley consistently scores very low on their EIS evaluations and assessments. I recall a newspaper article printed in the Taos News not too long ago about Taos Ski Valley receiving a "D" or "D+" on their impact on the environment, which tells me they are not interested in the environment but in making money.***

As indicated in the response provided to comment #23, the Ski Area Citizens' Coalition Ski Area Environmental Report Card is a third-party tool used to rate ski resorts' environmental policies and operations based on a range of anecdotal criteria and document review. However, the Agency does not rely on this information for making decisions about proposed activities at ski areas. Instead, the Carson NF actively manages TSV's activities and operations according to the Forest-wide and specific management area direction provided in the 1986 Carson Forest Plan and TSV's annual operating plan (which is required to be submitted and approved each year). Furthermore, TSV must abide by the terms and conditions of its Forest Service-administered SUP.

## **Guest Services**

### **Thematic**

- 35. *To improve the quality of the guests' experience, TSV should upgrade the crowded rental facility, locker rooms, restrooms, and the shuttles. In addition, the base area***

*restaurants and hotels should be updated to appeal to visitors seeking the entire resort experience. Possibly consider adding a 24 hour convenience store for out-of-town guests.*

The rental facility, locker rooms, restrooms, restaurants, and hotels are located on private land. This analysis is only for projects proposed on NFS lands; therefore, these suggestions are outside the scope of this analysis. TSV has been working, however, on concepts for a base area redevelopment plan that addresses guest services, such as those identified in this comment.

## **Process in Compliance with the National Environmental Policy Act**

### **Thematic**

- 36. *Reliance upon and merely listing mitigation measures is not legally adequate to reach a determination of no effect upon many forest resources especially wildlife and watersheds. There is no discussion or evaluation of how effective these measures have been on the Carson in the past - particularly in spruce-fir habitat and ski expansion projects.***

The purpose of an EIS is not to “reach a determination of no effect” for any resource. Rather, it is to analyze and disclose effects, including any deemed to be “significant,” on the human environment. That being said, as described on page 25 of the Final EIS, Forest Service and resource specialists involved in this project devised mitigation measures in the pre-analysis and analysis phase of this EIS to prevent or decrease potential resource impacts. The bulk of the mitigation measures are considered common management practices, historically used by ski area managers in alpine and sub-alpine environments. Many of the mitigation measures incorporated in the action alternatives have been implemented at TSV on previous projects and have proven to be highly effective methods of minimizing or avoiding negative impacts. The potential effects of implementing the action alternatives (provided in chapter 3) were analyzed with mitigation measures applied.

### **Unique**

- 37. *In response to its most recent request, the resort should not be allowed to expand any terrain/access in hopes of increasing skier “demand” but encouraged to scale down its operations to match its usage.***

The TSV’s MDP Phase 1 Projects proposal does not “expand any terrain/access.” All proposed projects are within the existing permit boundary, which is identified in the Carson Forest Plan as Management Area (MA) 16 – (Developed) Recreation Sites. Also refer to response to comment #20 for an explanation of forest plan land allocation and management direction.

TSV is a viable private enterprise and an important contributor to the local economy. It is not in the Forest Service’s authority to determine the economic level of investment at

which TSV operates, but must assure the impacts that occur on NFS lands are disclosed and are within legal requirements.

**38. *Please include all comments received from consultation with Agencies, Organizations, Tribal Governments, and Persons Contacted in the Final EIS.***

The CEQ requirements for inclusion of agency, organization, tribal and public comments are specified at 40 CFR § 1503.4(b): “All substantive comments received on the draft statement (or summaries thereof where the response has been exceptionally voluminous), should be attached to the final statement whether or not the comment is thought to merit individual discussion by the agency in the text of the statement.” As such, this Response to Comments includes both “unique” and “thematic” comments raised by agencies, organizations, tribes and the public, which meets CEQ requirements. In addition, the Final EIS contains copies of all comment letters from other Federal, state, and local agencies, according to NEPA Forest Service Handbook (FSH) 1909.15, Chapter 20 Section 25.1, which requires,

As a minimum, include in an appendix of a final EIS copies of all comments received on the draft EIS from Federal, State, and local agencies and elected officials. This will satisfy the requirement in Section 102 (c) of NEPA, which states, “...comments and views of the appropriate Federal, State and local agencies, which are authorized to develop and enforce environmental standards, shall be made available to the President, the Council on Environmental Quality and to the public...”

**39. *The EIS does not appear to meet the requirements NEPA. NEPA requires that federal agencies not narrow the purpose and need statement to preclude reasonable alternatives or consider the impacts of alternatives adequately. EIS’s must analyze the “environmental impacts” of proposed actions with not only direct and indirect impacts of proposed actions, but also the cumulative impacts of “past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-federal) or person undertakes such actions.” 40 C.F.R. 1508.7.***

Forest Service direction on purpose and need is described in the NEPA Handbook at FSH 1909.15, Chapter 10. Section 11.21, which says:

The breadth or narrowness of the need for action has a substantial influence on the scope of the subsequent analysis. A well-defined “need” or “purpose and need” statement narrows the range of alternatives that may need to be considered. For example, a statement like “there is a need for more developed recreation” would lead to a very broad analysis and consideration of many different types of recreation. However, a statement like “there is a need for more developed campsites along Clear Creek” would result in a more focused analysis with consideration of a much narrower range of alternatives.

Forest Service direction on development of alternatives is described in FSH 1909.15, Chapter 10. Section 14, which says:

No specific number of alternatives is required or prescribed. Develop other reasonable alternatives fully and impartially. Ensure that the range of alternatives



does not prematurely foreclose options that might protect, restore, and enhance the environment.

Reasonable alternatives to the proposed action should fulfill the purpose and need and address unresolved conflicts related to the proposed action. Be alert for alternatives suggested by participants in scoping and public involvement activities. Consider alternatives, even if outside the jurisdiction of the Agency.

For EISs, Forest Service NEPA regulations at 36 CFR § 220.5(e) require,

The EIS shall document the examination of reasonable alternatives to the proposed action. An alternative should meet the purpose and need and address one or more significant issues related to the proposed action. Since an alternative may be developed to address more than one significant issue, no specific number of alternatives is required or prescribed.

Opportunities and constraints at TSV were identified in the 2010 Master Development Plan. The Forest Service used these opportunities and constraints as the foundation of the Purpose and Need for Action (Final EIS, pp. 3-6). Based on FSM and FSH direction, alternatives were designed to address the purpose and need, as well as address issues raised during public scoping, or by the Forest Service specialists. In addition, chapter 2 of the EIS includes a section titled “Alternatives and Project Components Considered but Eliminated from Detailed Study.” Direct, indirect and cumulative impacts of the projects were analyzed in detail in the EIS. The CEQ’s Forty Most Asked Questions (#1a) for Range of Alternatives explains,

The phrase “range of alternatives” refers to the alternatives discussed in environmental documents. It includes all reasonable alternatives, which must be rigorously explored and objectively evaluated, as well as those other alternatives, which are eliminated from detailed study with a brief discussion of the reasons for eliminating them.

- 40. *The Draft EIS clearly has skier safety and satisfaction taking precedence over habitat needs for wildlife. This is clear under the mitigation measures regarding fallen logs, snags, broken-top trees, etc. These all provide critical attributes for many species of wildlife yet they are determined to be “hazard trees” for skiers or get in the way of a ski run lift line tower, or glade, then the Draft EIS says it’s ok to remove them. The Forest Service has an obligation to put the forest resources of wildlife and watershed health and needs above ski run design.***

Refer to response to comment #20 for an explanation on land allocations of NFS lands in the Carson Forest Plan and management direction for these allocations.

- 41. *EPA rates the Draft EIS as “LO” i.e., EPA has “not identified any potential environmental impacts requiring substantial changes to the proposal, and the Draft EIS adequately sets forth the environmental impacts of the alternatives.”***

In accordance with requirements under Section 309 of the Clean Air Act (CAA), the NEPA, and the CEQ regulations for implementing NEPA, the U.S. Environmental Protection Agency (EPA) is required to complete a review of all Draft Environmental Impact Statements prepared by the U.S. Forest Service. Consistent with Section 309 of

the CAA, it is EPA's responsibility to provide an independent review and evaluation of the potential environmental impacts of this project. EPA's rating system for Draft Environmental Impacts Statements includes:

LO (Lack of Objections): The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal.

EC (Environmental Concerns): The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment.

EO (Environmental Objections): The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment.

EU (Environmentally Unsatisfactory): The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality.

**42. *Why aren't you including residence of Valdez and Arroyo Hondo in the impact considerations? If this is to be an Environmental Impact Statement, why are you not having a public hearing?***

According to the Forest Service NEPA Handbook (FSH 1909.15, Chap. 10), the methods and degree of the scoping effort undertaken for a given project vary depending on scope and complexity of the project. Also, Forest Service regulations at 36 CFR § 220.4(e)(2) state, "Because the nature and complexity of a proposed action determine the scope and intensity of analysis, no single scoping technique is required or prescribed."

Solicitation of comments on this project was broad and complied with NEPA regulations. The public comment period was initiated with publication of a Notice of Availability in the *Federal Register* and a Legal Notice in *The Taos News*, both of which encouraged public comment on the proposed projects. In addition, a hardcopy and email mailing was completed to individuals on the mailing list, a news release and newspaper articles were published, and two public open houses were held, one at TSV and the other in the Town of Taos. The number of skiers anticipated in this EIS is lower than what was analyzed in the 1986 Forest Plan, therefore no change in the impacts to Valdez and Arroyo Hondo is anticipated.

**43. *The Draft EIS lacks adequate alternatives, it is mostly either all or nothing.***

The reader is referred to the response provided for comment #39.

**44. *Are taxpayer dollars that have been allocated to the Forest Service for fire control or road and watershed maintenance being used to protect private homes and property located right beside Forest Service land?***

This comment is beyond the scope of this analysis.

- 45. *Federal law requires that anytime over an acre of land is disturbed a stormwater construction permit must be obtained. How will the Forest Service, if any portions of the proposed MDP are approved, ensure that the proper permits will be obtained and enforced?***

The Record of Decision (ROD) will identify permits and approvals, such as a Storm Water Pollution Prevention Plan (SWPPP), that are required before implementation can proceed. The Terms and Conditions in TSV's SUP require compliance with all laws and regulations. Obtaining and complying with non-Forest Service permits will be a requirement of the ROD and is the responsibility of TSV.

- 46. *I suggest that a full-time snow ranger be assigned to TSV to orient more people to its attributes and to assist with other duties as needed***

During the winter, a Forest Service Snow Ranger from the Questa Ranger District regularly patrols all the developed ski areas on the Carson NF. Once every week during the ski season, the Forest Service offers a "Ski with the Ranger" program at TSV. This is a guided interpretive tour on skis/boards that provides information about the geology, biology, and history of permit area and the Carson NF's relationship with the ski area. During the past two ski seasons, several tours were held to specifically provide information about the Phase 1 projects. Participants had a chance to actually see where each of the projects was proposed and ask questions and discuss.

- 47. *Unfortunately few of the general public can afford lift passes to develop meaningful comments. I am sure many would like to tour the proposed sites during a ski day to get a better idea of the condition. I would of course need to take my wife and kids to help develop any more meaningful comments. It is primarily high paying customers who can hike and ski well that have ever been there during the winter.***

This is a personal comment and requires no response.

## Noise

### Unique

- 48. *It would also be great if you could talk to the Bavarian owners and ask them to turn down their music. I went backcountry skiing this past weekend and could hear music all the way up to Williams Lake. This is offensive and counter to the wilderness values I cherish.***

This is a personal comment and requires no response.

## Operations/Infrastructure

### Unique

- 49. Presently after every significant snowfall, the back (lifts 4 and 7) are closed for hours to allow snow control. If ski patrol no longer has to climb for an hour carrying explosives, but could ride a chair, it would be great. The same would substantially improve the safety of those same patrollers.**

Improvements to snow safety operations as a result of proposed lifts are discussed on pages 53 and 54 of the Final EIS.

- 50. There will be structures necessary for employees shelter as well as a public protection/view facility. If these facilities happen what will be their sanitary provision? What will be their water source?**

The ski patrol facility at the top terminal of Main Street lift is discussed on page 17 of the Final EIS. The facility would not be built as a shelter or viewing area for the public. There would not be a water source in the ski patrol hut—patrollers would bring their personal water supply and some for emergency medical use up the lift each day.

Employees are stationed at the top and bottom terminals of all lifts at TSV and required to dispose of trash and human waste appropriately. In addition, the lift operators have scheduled breaks throughout their shifts. Currently lift operators ride to the bottom station of a lift, if there are no facilities at the top. Other lift operators or ski patrol personnel staff the lift during these breaks. This would be the case on the proposed Main Street Lift and Ridge Lift.

- 51. The number of days Kachina could be open would probably double because of the ability to control slope development earlier.**

Improved snow safety operations and increased snow compaction is anticipated to result in an increased number of days the Kachina Peak terrain would be open (Final EIS, pp. 53-54).

- 52. How will construction and maintenance activities occur in the high alpine terrain?**

Construction and maintenance of the bottom terminal would be completed using existing mountain access. Construction of most of the towers and the top terminal would be completed by helicopter. During the summer, access to the top terminal and most of the towers for maintenance would be conducted on foot or by riding the lift. Some towers would be accessible via snowmobile. During the winter, lift maintenance personnel may be stationed at the top of a lift during operating hours as it allows access to both the high lift and a number of lifts via skis.

- 53. While obstacles are inherent to the sport and my opinion differs from many of my fellow skiers, there are specific limbs, stumps, and fallen trees that represent unnecessary and very dangerous conditions within the ski area known as TSV. I have personally come in contact with obstacles directly in the fall line of a run that represent a real and potential death trap. Also, the use of tan bamboo poles and thin ropes to corral skier traffic is really pathetic. I have several times come close to being clothes**

*lined or otherwise injured by a unrecognized rope or impaling object such as a bamboo pole.*

While the commenter has raised some valid concerns, these are operational and safety issues addressed through the terms and conditions of TSV's special use permit and are beyond the scope of this analysis.

- 54.** *Taos Ski Valley already routinely closes chairlifts, even when offering good snow conditions, in order to cut back (understandably) on expenses. At the early parts of the season, and often at the end of season, chairlifts #8, #4 and #7, remain closed even though their snow conditions offer quality recreation. I don't think it can be expected that new chairlifts on Kachina Peak and West Basin Ridge will be any different. Does this make sense? To build more lifts that will also remain closed for significant timeframes during the season? These two proposed chairlifts serve serious avalanche terrain and weather-exposed terrain. They will have to succumb to those heightened necessities of functionality, which means surely they will remain closed for large segments of the season.*

The number of lifts operating is determined by the number of skiers anticipated to be on the mountain during the beginning and the end of the season. From mid-December to late March all lifts that can be operated are operated in most circumstances. Lift 4 is almost always running, if conditions warrant. Lifts 7 and 8 are lifts that do not operate during the shoulder seasons, if the anticipated guest count for the day is less than 1,000. The terrain serviced by these lifts is open whenever possible, even if the lifts are not operating. Refer to response to comment #15, regarding skier safety and avalanche control and the proposed Main Street Lift.

- 55.** *The other issue that relates to both lifts is sanitation. Routine observation of lift terminal (and other ski area emplacements) around the mountain will yield a noticeable lack of hygienic sanitation. With the stationing of several employees at upper terminals (especially on Kachina Peak), the seriousness of this sanitation problem cannot be overstated. It is already happening in Taos Ski Valley.*

Employees are stationed at the top and bottom terminals of all lifts at TSV and required to dispose of trash and human waste appropriately. In addition, the lift operators have scheduled breaks throughout their shifts. Currently lift operators ride to the bottom station of a lift, if there are no facilities at the top. Other lift operators or ski patrol personnel staff the lift during these breaks and emergency needs. This would be the case on the proposed Main Street Lift and Ridge Lift.

- 56.** *If you can get the numbers for the actual days it is open, you will see it is much less. Though they do tend to open the Peak mid-January or February, it is closed much of that time due to wind, visibility, and foul weather. Kachina Peak is a wind magnet and a lift would be difficult to run to that elevation. The wind also tends to strip the snow off the top of the peak and a lot of the hike tends to be on rocks, especially in low snow years. This could create issues with the unloading of the lift and traversing to the runs downhill of Main Street.*

Over the past twenty years, Kachina Peak was opened an average of 53 days per season. The instability of the snowpack is the most prevalent reason for Kachina Peak to be closed. With early control work and frequent skier compaction, TSV anticipates operating

the Main Street Lift 80 to 90 days per season. The top terminal would be located below the typically windblown ridge, in an area that historically collects snow and has snow paths to the main skiing routes.

Taos Ski Valley currently closes lifts about five days per season due to wind. The location of the Main Street Lift would be such that the majority of the lift is protected from the wind by the ridge directly to the east of the lift and west of Hunzinker Bowl. While the top terminal would be more exposed to the wind than the rest of the lift, the wind forces are similar to those experienced at the top of Lifts 8 and 2, which operate the majority of the season. While above tree line terrain can be windy, the use of current lift technology and snow fencing can help hold snow, minimizing the days when the lift would be closed, due to windy conditions or low snow depths. Additionally, as discussed in the Final EIS (p. 54), increased use of terrain leads to increased snow compaction and therefore a more consistent, consolidated snowpack, which would be more resistant to wind. Nevertheless, the Forest Service would anticipate the Main Street Lift to close—infrequently—due to high wind speeds.

## Recreation

### Thematic

- 57. *The hiking experience on Kachina Peak and West Basin Ridge offer a sense of accomplishment and solitude that makes skiing at TSV a unique and sought after experience.***

The Carson NF and TSV fully understand what Kachina Peak and West Basin Ridge mean to the ski area's reputation for unique terrain and recreational opportunities. However, similar to the reversal of its long-standing policy on snowboarding (which was changed in 2008), the ski area believes that it can maintain and improve upon, the recreational experience for which it is known, by strategically locating lifts in its high alpine terrain. Overall, approximately 48 percent of TSV's hike-to terrain (approximately 102 acres) would remain hike-to only and would continue to meet the demand for hike-to terrain. Although the other 52 percent of the existing hike-to terrain would be accessed by lift, it would also continue to allow access by hiking. The potential effects of installing the proposed Main Street and Ridge lifts on the recreational experience at TSV are documented in chapter 3 of the EIS. Also refer to response to comment #32 regarding how the analysis addressed this significant issue.

- 58. *Adding lift service to Kachina Peak and West Basin Ridge would reduce the quality of the experience by adding crowds and reducing snow quality in these areas.***

The potential effects of installing the proposed Main Street and Ridge lifts on the recreational experience at TSV are documented in chapter 3 of the EIS. Also refer to response to comment #32 regarding how the analysis addressed this significant issue.


- 59. The existing hike required to access difficult terrain on Kachina Peak and West Basin Ridge naturally discourage skiers from attempting terrain that is beyond their ability level. Adding lift service would result in more safety issues occurring on this terrain.**

Appropriate signage is posted at the bottom terminal of all chairlifts warning visitors of the ability level required to negotiate the terrain serviced by a particular lift. Appropriate signage would be posted at the bottom and top terminals showing terrain ability levels and routes. Skiers would be allowed to ride the lift down if they decided not to ski.

- 60. How much of the terrain on Kachina Peak is advanced intermediate? The claim that much of its gradient is similar to that of the Blitz and Reforma trails on Chair #2 ignores the fact that those runs are true expert runs with warnings posted during firmer snow conditions about the life threatening nature of falling on those slopes. It is a well-known industry tid-bit that the trail ratings at Taos Ski Valley are at a much higher level than at most other ski areas. Additionally, Kachina Peak encompasses an environment that features numerous rock-bands, cliff areas, etc.; hardly the topography of advanced intermediate terrain.**

Terrain ability level designations are based on slope gradients and terrain features associated with the varying terrain unique to each mountain. Ability level designations are based on the *maximum* sustained gradient calculated for each trail. While short sections of a trail can be more or less steep without affecting the overall run designation, a sustained steeper pitch may cause the trail to be classified with a higher difficulty rating. Analysis completed for the 2010 Master Development Plan identified the Main Street terrain as “Expert ability level terrain with Advanced Intermediate slopes, making it suitable for a range of ability levels.” At TSV, similar to most ski areas, both Advanced Intermediate and Expert terrain are identified on trail maps and signed as *black diamond* trails; the result is that there are a range of terrain types and slopes that are classified as black diamond trails.

**Table 2-1:  
Terrain Gradients**

	<b>Skier Ability</b>	<b>Slope Gradient</b>
	Beginner	8 to 12%
	Novice	to 25%
	Low Intermediate	to 35%
	Intermediate	to 45%
	Advanced Intermediate	to 55%
	Expert	over 55%

The Forest Service allows a certain level of latitude for permittees to operate a ski area in a safe manner and in accordance with the SUP. The Forest Service works with permittees to ensure consistent decisions are being made in the best interest of the public. In addition, the ski area has the discretion to make operational decisions depending on snow conditions and knowledge of their clientele to rate trails at an appropriate ability level.

- 61. *The lift additions proposed in Alternative 2 only add more intermediate and expert terrain, thereby reinforcing Taos' existing image as being a difficult mountain, inappropriate for many skiers and/or their families. These new lifts will NOT broaden Taos' appeal.***

Alternative 2 was designed to improve the quality of the recreation experience and increase recreational opportunities at TSV. Specifically, the lift additions were included to respond to an existing opportunity to improve lift service to High Alpine, Advanced Intermediate and Expert Terrain within the SUP area (Purpose and Need #1). In addition, these lifts would respond to the identified shortage of advanced intermediate terrain when compared to market demand (Final EIS, p.49). Refer to the response to comment #12 for a discussion of the natural topography and resulting terrain opportunities at TSV.

- 62. *Providing lift access to portions of Kachina Peak and West Basin Ridge would open up a lot of terrain that people want to ski, but may not always want to hike to access, while maintaining some of the most popular hike-to terrain. These lifts would allow more people to experience these beautiful areas.***

For more information about lift-served and hike-to terrain under alternative 2 refer to chapter 3, the Recreation section of the EIS.

- 63. *Enhancing the alternative winter and summer recreation activities at TSV would enhance the experience for families and non-skiers.***

For more information about alternative winter and summer recreation activities at TSV refer to chapter 3, the Recreation section of the EIS.

## Unique

- 64. *The incidence of skiers going out of bounds will increase, and that lift riders will still go north of "K1" into the "hike to only" terrain, unless there is a huge structure, or fence. I think the Forest Service people who will decide this should go up to Kachina Peak, watch people hike up and ski off the peak and get a feeling for the experience without lift access. They should also go to Colorado and visit a resort with lift to the top of a peak or ridge. The comparison would be stark.***

Boundary management (including internal areas throughout the SUP boundary) is an operational issue and is the responsibility of TSV. The ski area boundary would continue to be properly roped and signed, including at the top of Kachina Peak. Exiting the resort boundary anywhere except designated points is both unlawful and dangerous. Currently, TSV ski patrol confiscates ski passes from guests caught ducking ropes to leave the ski area boundary or to access areas that are either permanently or temporarily closed to public access. While the Forest Service acknowledges that anyone who is determined to ignore a signed closure and duck a rope is likely to do so, the agency and TSV are confident that ropes and signage will be sufficient to discourage the majority of skiers and riders from accessing hike-to terrain on Highline Ridge from the Main Street Lift. Finally, snow coverage along the ridge up to and off the back side of Kachina Peak is generally thin enough to discourage skier/rider access down to Highline Ridge or out-of-bounds terrain off the back side of Kachina Peak.



**65. *The impact of the proposed development overreaches what the ecosystem can handle and would excessively compromise my enjoyment of the National Forest.***

Proposed projects are included in TSV's accepted 2010 Master Development Plan and would occur within TSV's SUP area which is allocated in the Carson Forest Plan as Management Area (MA) 16 – Recreation Sites, or on adjacent private land (Final EIS, p. 16). Impacts to the biological and social environment are described in detail in chapter 3 of the EIS. The Carson Forest Plan includes 21 different management areas that are administered for a range of resource values from more developed sites (i.e., Recreation Sites) to very natural areas (i.e., wilderness). Also refer to the response to comment #20 for an explanation of the forest plan's land allocations.

**66. *What kind of recreation activity besides tubing will be afforded for non-skiers and non-snowboarders by putting in a lift near the Hondo River at the base of chair 3?***

The surface lift proposed in the base area near Lift 3 is a specific component of the Snowtubing Center. As such, it would not provide recreational opportunities beyond snowtubing.

**67. *“Road” to the Radio Towers: I do not support building any “road” up to the Ridge. The hike-to terrain at TSV is one of its many unique aspects, please leave it as it is. I understand that this “road” is planned to be more of a glorified ATV trail, not a real road, but I question the need and utility of this part of the plan.***

No roads are proposed in either of the action alternatives. All construction and maintenance would occur using existing on-mountain maintenance roads, helicopter, or by hand.

**68. *You make some assumptions in your presentation that I believe are faulty, which you might want to reconsider. First of all, you claim that “most remote hike-to terrain requires a 45 to 60 minute hike.” This is absurd. From the top of Lift 2, it is only a ten minute hike, as you state, to access all of West Basin and another ten minutes of walking to reach Hildalgo, Juarez, Nino’s Heroes, Billy Sol, and Two Bucks. The slight further runs of Corner Chute, Tresckow and Twin Trees Chute require still another 10 minutes or so. Only Kachina Peak takes a 45 to 60 minute hike. 75 percent of TSV’s expert steep terrain is accessible within a 20 minute hike. The need to have any lift here, based upon the reasoning of a “45 to 60 minute hike,” is simply unnecessary and false.***

The accessibility of hike-to terrain is an important concept in the Purpose and Need for Action (Chapter 1 of the EIS). The EIS makes clear distinctions between hike-to terrain that is more readily accessible along Highline Ridge and West Basin Ridge, and that which is more remote on Kachina Peak. Purpose and Need #1 specifically states,

Taos Ski Valley's unique offering of inbounds, expert-only terrain helps define its reputation throughout the ski industry. However, much of this terrain is only accessible by hiking from the top of lifts 2 and 6, along West Basin Ridge and Highline Ridge. Even for those who are physically able and familiar with TSV, most remote hike-to terrain requires a 45- to 60-minute hike to reach.

In addition, please refer to the discussion of hike-to terrain in the Recreation section of the EIS (pp. 47-48). In summary, the EIS states,

All of TSV's hike-to terrain begins with an initial, short (roughly 200 vertical feet) hike up the ridge from the top of Lift 2. Depending on conditions and one's level of fitness, the initial hike typically takes between 10 and 20 minutes. From the ridge, a multitude of different chutes, steeps, and bowls are available to the north and south. Depending on weather conditions and one's fitness level, it takes a hiker approximately 60 to 90 minutes to reach terrain off the summit of Kachina Peak, along Highline Ridge from Lift 2.

## Socio/Economics

### Thematic

- 69. *The fact that that lift will only operate a minimum number of days a year means that the paying public will be forced to shoulder the cost of a white elephant that only will benefit a few individuals while the majority of the skiing public pays for the lift with increased ticket fees. The extra lift attendants, maintenance personnel, and ski patrol necessary also adds to the cost.***

The proposed Main Street Lift is anticipated to operate a majority of the season. As noted on pages 53 and 54 of the Final EIS, due to avalanche control and increased snow compaction made possible by lift-serving the Kachina Peak terrain, "TSV management anticipates that, in most seasons, Kachina Peak could be open in time for the holidays and would remain open through the end of the season."

It is reasonable to assume that TSV's ticket prices may increase as a result of implementation of approved projects; however, this is an operational issue in which the Forest Service does not have influence or control. Across the ski industry, ski area operators periodically adjust their daily ticket and season pass prices to cover increasing overhead and infrastructural improvements.

- 70. *The sport is changing and more people enjoy difficult runs and in deciding where they should vacation Taos will become less of a choice without expansion when all of the competitors expand and open new terrain. A lift adds a lot of vertical and terrain that is rarely open.***

Impacts of alternative 2 on the recreational experience and visitation to TSV are included on pages 50 through 56 of the Final EIS.

Alternative 2 is designed to improve the overall recreation experience at TSV and "allow TSV to begin rebranding itself after almost 2 decades in which no substantial investments in terrain and infrastructure have been made. Thus, the intent (and potential effect) of alternative 2 is that TSV would recapture some of the destination skiers and riders that have been lost since the 1990s" (Final EIS, p. 51).

- 71. *It is a best use of our federal lands to allow TSV to improve/upgrade their infrastructure to support growth of visitations. The upgraded infrastructure coupled***

***with added vertical feet and terrain would better showcase to the ‘outside world’ what is available at TSV.***

Refer to the response to comment #70.

**72. *Changing the drop-off area would impact the shops/restaurants that are already there.***

Changes in pedestrian circulation from the proposed East Guest Drop-Off Area are intended to provide a more welcoming arrival experience (the feeling a guest gets during the first few seconds of reaching a destination). The new entrance design would include signs and walkways to redirect foot traffic to all businesses in the base area. Early in the NEPA process the Forest Service, TSV, and private businesses in the Village began discussing the project proposal, specifically the proposed reconfiguration of the parking area. Together they developed a plan to realign the existing footbridge to better access Alpine Village and businesses on Sutton Place Road. With projected increases in annual visitation from alternative 2, local merchants could expect an increase in business. Refer to the discussion of pedestrian circulation on pages 75 and 76 of the Final EIS.

**73. *An expanded ski resort, will increase ticket costs and will attract more wealth (those who can afford this), along with greater needs to serve and continue to attract this narrow segment of skiers. This will also likely serve to drive up real estate costs, taxes and the general expense of living. The likelihood, almost inevitability, of raising prices to justify the costs of expansion will make buying future ski tickets or season passes harder and harder for the average Taos householder. The financial benefit will not be to locals, but to a handful of share holders and to those within the ownership of TSV.***

As discussed in response to comment #61, alternative 2 was designed to improve the quality of the recreation experience and increase recreational opportunities at TSV, so that the ski area can reclaim its competitive standing in the Rocky Mountain region and remain a viable provider of developed recreational opportunities on the Carson NF and in the Rocky Mountain market (Final EIS, p. 3). Based on (but not limited to) recent lift/terrain projects at other western resorts, and resulting increases to annual visitation, the new high alpine lifts and additional lift-served advanced intermediate terrain proposed in alternative 2 could generate an initial spike of between 15 and 20 percent in annual visitation at TSV for the first three to five years (Final EIS, p. 51), with a long-term (seven years and beyond) increase in annual visitation at TSV of an average of 10 to 15 percent. Therefore, average annual visitation as a result of alternative 2 could increase from the current 225,000 to approximately 270,000 (or more). In the long-term, this would likely level out to between 250,000 and 260,000 (Final EIS, p. 51). This anticipated level of annual average visitation is well below the 10-year average experienced in the 1990s of 294,785 (Final EIS, p. 38). Implementation of alternative 2 is not expected to result in driving up real estate costs, taxes, and living expenses in the local area.

As previously discussed in the response provided to comment #69, it is reasonable to assume that TSV’s ticket prices may increase as a result of implementation of approved projects; however, this is an operational issue in which the Forest Service does not have influence or control. Across the ski industry, ski area operators periodically adjust their daily ticket and season pass prices to cover increasing overhead and infrastructural improvements.

Real estate costs, taxes, and living expenses are beyond the scope of this analysis. Over the past four years, real estate values have fallen in Taos County, due to the recession and overbuilding. Taxes are in the control of local and State governments and living expenses are contingent upon the distance from a supply center, size of community, and other factors.

- 74. *Our entire community needs the tourism support the ski valley provides, so please don't hobble them in their efforts to put us at the top of desirable destinations for the skiing public.***

Refer to the response to comment #70.

- 75. *The effect of the ski industry on the local economy is also not a reasonable excuse to continue to prop up an industry. The Taos economy needs to diversify into areas which are not completely weather and energy dependent. The energy expenditures should be reduced to match existing demand.***

This is a personal viewpoint and requires no response.

## Unique

- 76. *The addition of this lift would raise TSV's top lift-served elevation to above 12,000 feet, creating a productive marketing opportunity. This marketing would attract new skiers/boarders to TSV and increase revenue, thereby making TSV more sustainable. TSV is one of the biggest employers in Taos County and it is in our best interests that the ski area thrives. If TSV is thriving, so much the better for the many hotels, restaurants, etc. in the area.***

Refer to the response to comment #70.

- 77. *As the municipal government for the ski valley, the Village is fully aware that TSV is the primary driver for GRT and other revenue that enables our municipality to operate; we have seen the impact, or loss of revenue and economic development due to TSV falling behind in the management of improvements over the last fifteen years. As skier days drop due to more competition from the other updated ski resorts throughout the region, our municipality struggles to maintain the services and provide the basic infrastructure needs as the Village's tax revenue decreases.***

The social and economic role that TSV plays in Taos County is discussed in detail in chapter 3 of the EIS.

## Traffic/Parking/Access

### Thematic

- 78. *The increased traffic does not cover the short-term pleasure of a few individuals.***

Traffic on Highway 150 was not analyzed in the EIS. However, it is not anticipated to exceed, or even approach, traffic levels associated with TSV's highest visitation years in

the 1990s (which exceeded 300,000). The Final EIS has been updated to include this information.

**79. *The access to Twining Road and parking for Bull of the Woods, the Wheeler Peak Wilderness and Williams Lake Trailheads is poor and something should be planned in the future.***

As part of the proposed parking lot reconfiguration in alternative 2, access to Twining road would be improved by creating a dedicated access road. Parking for trailhead access in TSV parking lots would remain similar to the existing condition. Currently, there is plenty of parking available year round. In the winter, backcountry users may have to park further from the trailhead because greater number of people using the parking lots during the ski season. Other access and parking options for the Wheeler Peak Wilderness and Williams Lake Trailheads would be maintained. In addition, in response to concerns expressed by the public over potential impacts to local businesses located on Sutton Place Road, proposed parking lot and vehicular circulation improvements were omitted from alternative 3.

**80. *When arriving on busy days and holidays, the quality of welcome is seriously impaired by having visitors wait in their vehicles on the approach road as advance vehicles are placed for parking. So people sit in their cars waiting in a line rather than proceeding directly to parking and recreation. I feel this seriously impacts the quality of experience as visitors arrive, and also is a hindrance for those who actually live in Taos Ski Valley to proceed to their homes, etc. A plan that would streamline parking lot interaction would certainly be welcome.***

Changes to the guest drop-off area and the parking lot reconfiguration are designed to improve the initial guest experience and sense of arrival, while also improving access for those vehicles traveling through the parking area to Twining Road. Refer to chapters 1 and 2 of the EIS for the purpose and need for these projects and the proposed project description, as well as the discussion of improved access and circulation in chapter 3 Parking and Ski Area Access.

## Unique

**81. *I don't think that the new Beausoleil parking club will work - as this type of facility is quite costly and will require high membership dues. The vast majority of Taos skiers do not have this kind of money - nor do they need this kind of luxury to enjoy Taos.***

The Beausoleil parking club (on private lands at the base area) is not part of this project and is outside of the Forest Service's jurisdiction. It is therefore beyond the scope of this analysis.

**82. *If we look at the objective of increasing skiers days by 50 to 70 thousand as stated by Mountain Manager Gordon Briner, and at the same time eliminate the parking lot or lots to create a dedicated thru road, where would all the new skiers park? Wouldn't TSV need to increase its parking lot acreage?***

As discussed on page 85 in the Parking and Ski Area Access section of the Final EIS, the existing surplus of day parking spaces can absorb most of the increased demand, due to

an increase in visitation. However, under alternative 2, the total number of spaces available for TSV's day skiers/riders would decrease by approximately 109 spaces, from 1,740 to 1,631. This demand could be managed by more rigorous management of the parking situation. As indicated on page 85 of the Final EIS, "Taos Ski Valley would put an increased emphasis on directing guest parking to improve parking efficiency (i.e., the number of vehicles that can be parked per acre). In addition, TSV would work with local transit services to add routes and shuttles. Finally, TSV would promote or provide incentives for guests and employees to carpool or use shuttles to get to TSV from Taos and the surrounding area. This would substantially improve parking capacity (Final EIS, p. 85)."

## Vegetation

### Thematic

- 83. *Please quantify how many acres of trees, measuring less than 4 inches in diameter, may possibly be removed for the snowshoeing trail. Why do they need to be removed?***

The Adventure Center would be designed to avoid tree removal, including those that are less than 4 inches in diameter. Over the entire length of the trail, less than ten trees smaller than 4 inches in diameter would be removed, to enable guests to move through the trees comfortably.

- 84. *The forests in question of being thinned provide an important ecosystem service in water retention, erosion prevention and habitat. As forests throughout the Carson NF, and the West generally, continue to get hit hard by pest infestation due to rising temperatures of climate change, I do not think it is a wise management decision to harvest trees where they are actually thriving.***

It is assumed the commenter is referring to the proposed Wild West Glades, since the description of the proposed Minnesotas Glades area on page 146 of the Final EIS states,

The most remarkable feature of the existing condition in this area is the massive number of standing dead cork-bark fir trees as a result of beetle mortality. There are patches within the proposed glades area that have suffered in excess of 90 percent mortality.

The proposed Wild West Glades area is described on page 144 of the Final EIS,

The habitat is densely forested throughout the length of the proposed Wild West Glades. The dominant tree species are cork-bark fir and Engelmann spruce. The vast majority of the trees are in smaller structural categories ranging from 4 to 12 inches in diameter. Occasionally, there is a small pocket, with slightly larger diameter trees in the 15 to 18 inch range. These small pockets are noticeably less dense and are spaced such that cutting of these trees would not be necessary.

Alternative 2 would thin stands on approximately 31.6 acres of spruce-fir habitat in the proposed Wild West Glades areas. Thinning would be in a mosaic pattern, rather than thinning all of the acres. The Final EIS on page 166 states,

The recently thinned *North American Glade* shows a noticeable response to understory diversity and productivity. Other prey species that are likely to respond favorably to the increased forage availability from glading would be small mammals, such as deer mice and mountain cottontail.

Furthermore, snow left in the tree tops normally sublimates and does not contribute to the snowpack. The opening up of these stands through glading would allow snow to fall to the ground, increasing snowpack and water yield downstream. The Vegetation and Wildlife Resources section of chapter 3 describes the effects of glading 72 acres in the context of 50,000 acres of habitat within designated wilderness or wilderness study area surrounding the TSV permit area.

## Unique

- 85.** *By thinning trees TSV will easily be able to increase skiable terrain and help the forest at the same time. There is a large die-off of trees in the Minnesota Glades area and removing them would be beneficial to everyone.*

As discussed in the Visual Quality and Vegetation and Wildlife Resources sections of the EIS, there are patches of dead cork-bark fir in the areas proposed for the Minnesotas and Wild West Glades from insect infestation and drought. These areas present a potential fire hazard and thinning them may reduce the hazard as well as improve habitat for some species.

- 86.** *There are several comments stating the dead corkbark fir in the Minnesota Glading area is a high fire risk. I believe a review of the literature will show that dead conifers, after the needles have dropped, are less of a fire risk than live trees.*

Reducing fire risk through glading is incidental to the purpose of providing a specific type of ski terrain. Glading would improve the health of the remaining trees and reduce the amount of standing and downed dead material that could potentially carry a fire. A healthy stand of live trees spaced further apart (with less fuel in the canopy) is at reduced fire risk than a dense stand of mostly dead trees.

## Visuals

### Thematic

- 87.** *The visual impact of the proposed Main Street Lift for hikers on the ridge to Wheeler Peak is a legitimate concern. However, the view towards Taos Ski Valley is already compromised by the presence of many runs and lifts and the installation of this lift seems to me the single component of the proposed development plan that will do the most to attract new skiers to Taos.*

While the Forest Service and TSV have attempted to minimize the visual impacts of the proposed Main Street Lift through design and placement, portions of the lift are nonetheless anticipated to be visible from within the ski area and surrounding public lands, including the Wheeler Peak trail (Final EIS, pp. 103-104). The lift would be consistent with Forest-Wide and Management Area 16 (Recreation Sites) direction. Per the 1986 Carson Forest Plan, MA 16 is managed as “areas of concentrated recreation use” and its Visual Quality Objective is Partial Retention. Furthermore, it is anticipated the

proposed Main Street Lift would align with residents' and visitors' expectations for a developed ski area.

- 88.** *A ski lift up the ridge on Kachina ridge would impact a unique and valued viewshed from the ski area, surrounding private land and NFS lands, including Wheeler Peak Wilderness.*

Refer to response to comment #87.

## Unique

- 89.** *Any new buildings should adhere to architectural styles that enhance the feeling of a high-mountain resort in Europe. Rustic-with lots of wood and stone. Pitched roofs and lots of glass to view the mountain. We don't want our mountain to end up looking like Copper or Breckenridge. We need to retain our Austrian roots.*

No new buildings are proposed under the action alternatives. Any remaining projects included in TSV's 2010 Master Development Plan that include buildings would be subject to the Forest Service's Built Environment Image Guide, which identifies the appropriate character for the Rocky Mountain Province (where TSV is located). "Contemporary Forest Service design should synthesize rustic precedents with contemporary needs and realities... Today's Rocky Mountain structures may not always use natural materials. Yet they can still complement their settings, be more durable, consume less energy, and lay more lightly within the landscape than structures from previous eras."

## Water Quality

### Thematic

- 90.** *We are hopeful that some of the impacts related to the gravel will be offset by a reduction in traffic over the Rio Hondo immediately upstream from the proposed Snowtubing Center when the new drop off location is implemented. We question how much of the gravel impacts would in fact be eliminated since vehicle traffic and thus road plowing and gravel application will still be necessary to access various lodging accommodations at the base area.*

Repaving and designating appropriate areas for snow storage and plowing strategies would minimize sediment transport to the Rio Hondo. In addition, prior to ground disturbance for the parking reconfiguration project, a Surface Water Pollution Prevention Plan (SWPPP) is required to be designed and implemented to establish erosion and sedimentation control in areas adjacent the Rio Hondo (Final EIS, p.129). Refer to the Water, Wetlands and Soil Resources section of Final EIS for additional information provided on BMPs and the effectiveness of management options (Final EIS, pp. 127-130).

- 91.** *I am concerned about the impact the development of various property and ski lifts will have on the water table and rivers in the Taos Ski Valley, as well as those communities further down valley who also rely on this water. I trust that numerous environmental*



***studies will be performed before any green light is given for further development. I am concerned that the increased impact may taint the already fragile watershed of the Taos Ski Valley and surrounding communities.***

Potential impacts to water resources are disclosed in the Water, Wetlands and Soil Resources in the Final EIS, chapter 3. Furthermore, mitigation measures, including BMPs, are an integral part of implementing either of the action alternatives and are intended to minimize the impacts of a proposed project. These are common management practices historically used by ski area managers in alpine and sub-alpine environments, to prevent or decrease potential resource impacts. They are highly effective methods that can be planned in advance and adapted to site conditions, as needed (Final EIS, p. 25).

The analysis for the Water, Wetlands, and Soils Resources section of the Final EIS has been supplemented with more information and analysis of the effectiveness of BMPs at maintaining water quality. Any increased erosion, runoff and sedimentation due to the proposed projects would be addressed through application of best management practices identified on pages 129 and 130 of the Final EIS

**92. *I am concerned about water quality. It is likely that there would be damage to the water quality caused by these projects as well as ongoing operations of TSV.***

Refer to response to comment #91. These BMPs are designed to minimize runoff transport from the reconfigured parking lots and the developed ski area to the Rio Hondo and nearby wetlands, thereby maintaining water quality. Currently, the ski area uses a system of drainage ditches and sediment ponds to intercept runoff from parking lots and the entry road before it flows into the Rio Hondo. In addition, on-mountain drainage is managed using BMPs common to ski resorts such as waterbars, slope stabilization and revegetation. The snow storage removal plan, to be developed based on the parking lot reconfiguration would further improve existing practices within the parking lot.

**93. *Modeling of pollutant load increases based on proposed land cover conversion presented in the Draft EIS (p. 127) indicates that Alternative 2 would increase phosphorus loading to the Rio Hondo by approximately 0.1 lb/day, and nitrogen loading to the Rio Hondo by approximately 0.04 lb/day. The Draft EIS also states that any increase in runoff, erosion or sedimentation would be addressed by the application of BMPs, but does not present a basis for this statement such as modeled pollutant load reductions for the different BMPs. Alternative 2 may increase phosphorus loading to the Rio Hondo more than is allowable in the TMDL, without considering BMPs. The effectiveness of the BMPs should be evaluated more carefully to ensure that they are appropriately selected and applied to prevent exceedence of the growth allocation or of the overall TMDL, and prevent the Rio Hondo from becoming nutrient-enriched to a level that no longer meets water quality standards. Analysis of modeled load reductions expected with the BMPs at a level of detail comparable to that of the expected increase in loading should be presented in the final EIS, and should affect alternative selection in the Record of Decision.***

Throughout the NEPA process the Forest Service and TSV worked together to minimize impacts to watershed and wetlands resources through project design, revision of the proposed action, and defining appropriate mitigation measures and implementation of BMPs. In addition, after the close of the Draft EIS comment period NM Environmental

Department, the Army Corp of Engineers and the Forest Service conducted a site visit at TSV to review projects in proximity to delineated wetlands and the Rio Hondo. As a result of this site visit, BMP effectiveness was modeled to account for reduction of potential pollutant loading (Nitrogen and Phosphorous) described in the effects analysis so as to ensure environmental impacts were minimized. Modeling efforts showed that the BMPs identified in the Final EIS on pages 129 and 130 would effectively mitigate any potential nitrogen, phosphorus and sediment inputs to a level that should not cause impairment of the Rio Hondo and maintain the current water quality status of this stream reach.

In addition, the Forest Service considered other factors in the assessment of BMP effectiveness and compliance with water quality standards: 1) background loading from the watershed, 2) shortcomings of the model(s) used in both predicting the amount of N and P loading and the reduction of pollutant loading through implementation of BMPs, 3) the existing level of N and P loading resulting from increase of household and commercial use of wastewater treatment and disposal by the Waste Water Treatment Facility, and 4) improvements to the existing condition.

First, due to the small areas of land disturbance and vegetative conversion associated with the type and extent of development for ski area operations, N, P and sediment contributions from TSV operations are small when compared to the total load as predicted by the models. When accounting for BMP effectiveness for controlling increased loading the models could only account for a very small decrease due to the limited scope of effect of the proposed action. In comparison to the larger watershed area, natural sources and loading rates associated with the various land use categories defined and accounted for in the modeling effort masks the impact of projects in the proposed action.

Second, during modeling the Forest Service recorded land cover-type conversions for new and upgraded lifts, the bike trail, the tubing facility and the parking area. Although these land cover-type conversions accurately depicted the acreage that would be affected, it is our opinion that the mountain bike trail in particular overestimated the potential for impact to the Rio Hondo. By calculating that forest cover would be removed and converted to urban land use (because of the unvegetated, compacted surface), nutrient export coefficients assigned predict a noticeable increase in N and P loading. In reality, because of the narrow width of that trail and BMPs that would be implemented to disconnect the entire length of the mountain bike trail from the receiving waters, it is likely that there would be little to no increases in N, P or sedimentation loading from the mountain bike trail. This is an acknowledged shortcoming in the model, however, it was felt that this was a reasonable approach at accounting for actual ground disturbance in a manner consistent with other land disturbance.

Third, when the TMDL was established in 2005, the permit assumed 77 septic tank permits were in use in the VTSV, since that time, approximately 95 percent of the private homes and all of the commercial businesses in the valley have transitioned to service by the VTSV waste water treatment plant, which represents a notable decrease in the number of active permits to 14. Conversion of these individual waste water treatment permits to the wastewater treatment plant and resultant discharges represents potential improvement to water quality in the Rio Hondo.

Finally, based on site visits and discussions with TSV, the Forest Service recognizes that there is an ongoing operational issue with snow removal and disposal from the parking lots and surrounding roads. Although TSV cannot control private road snow removal, they are committed to working with the Forest Service to identify appropriate best management practices for snow removal and disposal within the existing SUP area and parking areas to minimize sediment transport to the Rio Hondo.

Ultimately, with implementation of appropriate BMPs for existing operations and maintenance activities as well as the proposed projects and considering the inputs to the 2005 TMDL for the Rio Hondo, the Forest Service is confident that current water quality would be maintained. Refer to the Water, Wetlands and Soil Resource analysis for information added to the Final EIS.

## Unique

- 94.** *The Draft EIS states (p. 121) that “the Rio Grande, 24 miles downstream of TSV, has been listed for turbidity, stream bottom deposits and temperature. Currently it is listed for stream bottom deposits only.” This statement is incorrect, as the Rio Grande between Embudo Creek and the Red River is currently listed as meeting its water quality standards. The Rio Grande between Embudo Creek and the Rio Pueblo de Taos has a proposed impairment listing (for turbidity) in the 2012-2014 Integrated Report, which as of this writing has not been approved by New Mexico Water Quality Control Commission or the U.S. Environmental Protection Agency.*

The Final EIS (p. 121) has been updated to reflect this information.

- 95.** *Additional glading in other areas at TSV is of concern to me primarily because of water quality issues.*

The proposed glading would be similar to the North American Glade. The Final EIS describes on page 149 the recently thinned North American Glade as showing a noticeable response to understory diversity, productivity, and lushness. This response provides groundcover that acts as a filter for water drainage and stabilizes the soil.

- 96.** *At what point does development threaten wetlands and water quality and watershed health already there have been loss of wetlands, sewage leaks, soils loss (compaction, erosion, etc.) in this watershed directly tied to the ski area. This watershed provides vital drinking water and agricultural water to downstream communities and is an important tributary to the Rio Grande. It's also a vital fishery and riparian habitat for numerous species especially migratory songbirds.*

Refer to response to comment #93 and 95.

- 97.** *In the past, struggles ignited by Ski Valley expansion plans have concerned its limited terrain, its cul-de-sac nature, and the fact that increased visitor days put a strain on Ski Valley sewage treatment facilities, and therefore on the Rio Hondo watershed, and that threatens the health of people down in Valdez, Arroyo Seco and Arroyo Hondo.*

The Village of Taos Ski Valley Wastewater Treatment Plant operates the wastewater treatment plant and monitors the water quality of its wastewater discharge to the Rio Hondo as required under National Pollutant Discharge Elimination System (NPDES) permit 0022101. The permit allows for this discharge while protecting water quality of

the Rio Hondo and downstream uses. The analysis for Water, Wetlands, and Soils Resources section of the Final EIS has been supplemented with more information and analysis of the effectiveness of BMPs at maintaining water quality. Any increased erosion, runoff and sedimentation due to the proposed projects would be addressed through application of best management practices identified on pages 129 and 130 of the Final EIS.

- 98. *The indicator quantifying the change in snowmaking coverage, water use, and impacts from water diversions does not make clear the temporal scale concerning acre feet (AF) of water use. Please update the table to more clearly reflect whether the AF of water use is on a weekly, monthly, or yearly basis.***

The only snowmaking included in any of the proposed projects would occur on the snowtubing lanes within the Snowtubing Center. The snowmaking coverage on 1.5 acres of terrain would require a total of roughly 2.3 acre feet of water each season (the season is defined as October through April, refer to pages xiv, 20 and 131 of the Final EIS).

- 99. *Per the glading, I am skeptical that the hydrologic analysis included adequate modeling in the area of sediment transport. I am concerned about the Rio Hondo, and the potential effects of increased sediment loads. That said, I believe the glading could be done in a way that would actually reduce sediment loading. I see the whole forest as over-stocked with spruce. Thinning may provide habitat for other species such as aspens, grasses, and even willows. A diversified forest, both in species as well as structure, could provide better protections against sedimentation downstream. I think that glading more of the ski area is good ecologically, and really good for skiing.***

This section of the EIS complies with Forest Plan management direction for Riparian Areas, Watershed Resources, and Recreation Sites on NFS lands. As discussed in the Final EIS (p. 130), glading would be done in a way that does not reduce any canopy cover that defines the forest land cover type, and therefore no land type conversion would occur. Additionally, ground disturbance would be minimized and “canopy spacing has been shown (in the previously implemented North American Glades) to improve understory abundance and diversity, increasing stabilizing vegetation and reducing potential for erosion” (Final EIS, p. 131).

Furthermore, snow left in the tree tops normally sublimates and does not contribute to the snowpack. The opening up of these stands through glading would allow snow to fall to the ground, increasing snowpack and water yield downstream.

- 100. *For the parking lots and roads, I think the Forest Service and the village of TSV have a responsibility to analyze sediment transport to the Rio Hondo. I believe the parking lots and roads should be improved as stated in the draft EIS, with an extra effort towards implementing the very best management practices possible. This area should strive to exceed “minimal standards” in drainage, snow removal, and erosion control. This area of the Carson NF (the parking lots of TSV) should become a demonstration site for progressive and protective management in the area of sediment control.***

We agree and an appendix has been added to the Final EIS identifying components of the Snow Storage and Removal Plan for the parking lot reconfiguration, to minimize sediment transport from the reconfigured parking lot to the Rio Hondo and nearby wetlands. In addition, requirements to comply with Section 402 of the Clean Water Act

National Pollution Discharge Elimination System permit program would include developing a Storm Water Pollution Prevention Plan (SWPPP) if the parking reconfiguration is approved. These documents, combined with implementation of best management practices incorporated in the action alternatives, would help the proposed projects meet applicable standards and guidelines included in the 1986 Carson Forest Plan for Riparian Areas, Watershed Resource and Recreation Sites (Final EIS, p. 118). Also refer to responses #94 and 95.

- 101. TSV and private property developments in and around the Village of Taos Ski Valley have greatly reduced wetland habitat over the years. This accumulated loss of wildlife habitat has had a negative impact on water quality. The area that comprises the Snowtubing Center, as we have noted in previous comments and in meetings with TSV, is already negatively impacted by gravel getting into the stream from road maintenance. By removing additional wetlands the ability of the stream to handle and recover from the ongoing impacts will be further reduced. We are pleased to read that “Wetland mitigation has been identified that would create a PSS wetland upstream from the tubing location, along the Rio Hondo. This mitigation would be implemented concurrently with, or prior to, grading the tubing area. (at Page 131).”***

As discussed in response to comments #91 and #93, NM Environmental Department and the Army Corp of Engineers made a site visit to TSV to review projects in proximity to delineated wetlands and the Rio Hondo. As a result of this site visit, BMPs were analyzed to ensure they minimized impacts and that the TMDL for the Rio Hondo would not be reached as a result of implementation of any of the proposed projects. Refer to the Water, Wetlands and Soil Resource analysis for information added to the Final EIS.

- 102. We ask that the issues associated with sediment loading be addressed through this NEPA process, and that TSV identify, and commit in writing, additional Best Management Practices and green infrastructure projects to protect the Rio Hondo.***

The analysis in the Final EIS was supplemented to identify components of a SWPPP and Snow Storage and Removal to minimize sediment transport to the Rio Hondo with implementation of the proposed projects. Refer to the Water, Wetlands and Soil Resources section of the Final EIS for specific information related to improvements made to the analysis based on the NMED’s comments.

- 103. Amigos Bravos has been following the substantial impacts to the Rio Hondo from storm and snowmelt runoff along roads and trails in Taos Ski Valley as well as immediately adjacent to the base and parking area of TSV. While not all of these impacts are directly linked to the SUP or TSV Inc., many of them do occur on Forest Service land and they certainly contribute to cumulative impacts on the Rio Hondo.***

The cumulative impacts to the Rio Hondo of this and other project are described on pages 137 through 138 of the Final EIS. Appendix B, describes the past, present and reasonably foreseeable future actions that were considered in this analysis. Construction activities included in the proposed action will require a NPDES stormwater pollution plan (SWPPP) and be permitted by EPA as required by the Clean Water Act. Implementation of Best Management Practices to minimize impacts to waters and wetlands, riparian areas, and other resources are required.

***104. In the past there have been several Clean Water Act violations due to illegal fill being deposited in the Rio Hondo and wetland destruction. Driving up Twining Road mid to late day on any sunny spring afternoon will demonstrate the considerable amount of sediment flowing from Twining Road directly into the Rio Hondo. We request that the Forest Service assess the cumulative impacts of the proposed MDP in the context of these impacts as well as the cumulative impacts associated with potential increase of waste water flows, increased impact to wildlife, and increased hardened surfaces and related stormwater runoff.***

Impacts to water quality from road runoff, other urban sources, and snow removal and disposal are considered in the effects analysis—both direct and indirect as well as cumulative impacts. Discharges from the Waste Water Treatment Plant are regulated by a NPDES permit issued by EPA which requires regular monitoring and reporting of effluent quantity and quality. Recent improvements by TSV and the Village to address road related sediment and improvement to their snow removal and disposal practices were also taken into consideration in analyzing the impacts of this project. Ground disturbance related to activities proposed in the Proposed Alternative will also require a permit under the NPDES requirements for small construction activities and the Storm Water Pollution Prevention Plan will identify and implement needed stormwater and erosion control measures to avoid impacts to water quality of the Rio Hondo.

***105. The Department of Agriculture should not lose sight of the Rio Hondo Basin's true cultivators, the many downstream who depend on water flow and purity to sustain long-established families and who neither benefit from nor have access to extensive special-use permits.***

The Forest Service understands the importance of water and water quality to the residents of northern New Mexico. Many rural communities depend on water for irrigation and consumption. The analysis for Water, Wetlands, and Soils Resources section of the Final EIS has been supplemented with more information and analysis of the effectiveness of BMPs at maintaining water quality. Any increased erosion, runoff and sedimentation due to the proposed projects would be addressed through application of best management practices identified on pages 129 and 130 of the Final EIS. The tubing facility is the only project that would require additional water diversions from the Rio Hondo. The increase would be 2.3 acre feet (or 733,166 gallons) of water per ski season. Total snowmaking diversions at TSV would be increased from 193 to 195.3 AF (a 1.2 percent increase), which is within their existing diversion right of 200 AF. The analysis for Water, Wetlands, and Soils Resources section of the Final EIS has been supplemented with more information and analysis of the effectiveness of BMPs (which was modeled between draft and final EIS) at maintaining water quality. Any increased erosion, runoff and sedimentation due to the proposed projects would be addressed through application of best management practices identified on pages 129 and 130 of the Final EIS.

- 106. *Dumping sewage into any river is an archaic and antiquated practice. The Rio Hondo water is placed at risk by the medications from Taos Ski Valley participants who provide their effluent to the so called sewage treatment facility. All of the increased runoff to the river, resulting from development in Taos Ski Valley will affect the people of our valley.***

The Village of Taos Ski Valley Wastewater Treatment Plant operates the wastewater treatment plant and monitors the water quality of its wastewater discharge to the Rio Hondo as required under NPDES permit 0022101. The permit allows for this discharge while protecting water quality of the Rio Hondo and downstream uses. The analysis for Water, Wetlands, and Soils Resources section of the Final EIS has been supplemented with more information and analysis of the effectiveness of BMPs at maintaining water quality. Any increased erosion, runoff and sedimentation due to the proposed projects would be addressed through application of best management practices identified on pages 129 and 130 of the Final EIS.

- 107. *Water rights issues and land grant issues on the Rio Hondo are not resolved.***

Neither water rights nor land grant issues are within the scope of this decision.

- 108. *Is the water in the Rio Hondo being tested? Who is doing the testing, where on the Rio Hondo was the testing conducted, and what were the results?***

Water quality in the Rio Hondo is monitored by several entities. The Village of Taos Ski Valley Wastewater Treatment Plant monitors the water quality of wastewater discharge to the Rio Hondo as required under NPDES permit 0022101. The monitoring requirements under this permit are administered by EPA Region 6 and the NM Environment Department. In addition, the Surface Water Quality Bureau of the NM Environment Department monitors surface water quality on a 5 to 8 year rotating basis and results of that monitoring is reported in the State of New Mexico CWA section 303(d)/305(b) Integrated List and Report (<http://www.nmenv.state.nm.us/swqb/303d-305b/>) which is updated on a biennial basis. At this time, the Rio Hondo (Lake Fork Creek to headwaters, NM-2120-A\_607) is fully supporting all designated uses assessed by the State of New Mexico.

- 109. *As the downstream land-owner, the USFS has a particular interest in all activities in the TSV area, both on public and private land. The USFS on the Rio Hondo below TSV is an excellent trout fishery and should be protected for locals and visitors alike. I believe the USFS should take a pro-active role in broader watershed-based planning towards further development that is destined to occur in the area. The USFS should not separate their resource protection efforts from private land, but provide technical capacity on a watershed scale, particularly in the area of hydrology.***

The commenter makes a good point. The Forest Service is concerned with more than just the activities within TSV's permit area. The expertise of Forest Service personnel is called upon for many other purposes, including watershed and fisheries. The Carson NF is managed for multiple uses and works cooperatively with communities that are surrounded by NFS lands and depend on these lands for their economic livelihood, water, recreation, and quality of life. Recently, the Village of Taos Ski Valley approached the Carson NF with a preliminary proposal to reduce fuels on NFS lands and private land in Hondo Canyon; thus decreasing fire risk to the Village and improving watershed

conditions of the upper Rio Hondo. This would be a proposal using a grant from the Collaborative Forest Restoration Program (CFRP). It is unclear where the planning is at this time, but the Carson NF has been involved in numerous similar proposals over the last ten years and will be open and eager in helping the Village, TSV, Inc., and private landowners with improving watershed conditions in the Rio Hondo.

## Wetlands

### Thematic

***110. We are concerned regarding any loss of wetlands. Alternative 2 does not appear to comply with Executive Order 11990.***

Executive Order 11990 requires federal agencies to avoid and minimize to the extent practicable adverse impacts to wetlands. The proposed action was modified to avoid impacts to wetland 2 (Final EIS, Map 5) from the parking lot reconfiguration. In addition, the proposed Snowtubing Center was relocated to the current proposed site, to minimize impacts to wetlands and riparian vegetation. The relocation of the Snowtubing Center would also concentrate development on NFS lands (reducing impacts to a number of resources) and use private land for a portion of the development. This area is currently developed with the popular Strawberry Hill teaching terrain, existing tubing lanes on the south side of the Rio Hondo, and the parking lots on the north side. The 0.14 acre of wetland impacts from the proposed Snowtubing Center location would require a permit from the Army Corps of Engineers and would be fully mitigated with in-kind wetlands upstream of the project on the Rio Hondo.

***111. The Draft EIS should provide additional information under all three alternatives on BMPs to protect the integrity, function and acreage of existing wetlands, and a stronger commitment to implement these BMPs for the chosen alternative.***

Refer to response to comment #93.

## Wilderness

### Thematic

***112. The Main Street lift will affect the unique qualities of the Wheeler Peak Wilderness by impacting natural views, bringing development closer to the wilderness and developing in a currently undeveloped area.***

The TSV Phase 1 projects are all within the SUP area, which the Forest Plan allocates to be managed as a developed recreation site. As discussed in response to comment #87 as well as chapter 3, the Forest Service and TSV have attempted to minimize the visual impacts of the proposed Main Street Lift through design and placement below the ridgeline, but nonetheless portions of the upper terminal would likely be visible from surrounding NFS lands, including the trail to Wheeler Peak. The lift would be consistent with Forest-Wide and Management Area 16 (Recreation Sites) forest plan direction. MA 16 is managed as “areas of concentrated recreation use” and its Visual Quality Objective is Partial Retention (Final EIS, p. 94). Forest Plan direction for MA 17 – Wilderness states, “The visual quality of the natural landscape is preserved (preservation visual



quality objective).” MA 17 management direction for visual quality is intended to be followed within the wilderness boundary and is not meant to be applied in other management areas, even those that can be seen from the wilderness. The development of TSV within its permit area can already be seen from several viewpoints in the Wheeler Peak Wilderness and Columbine-Hondo Wilderness Study Area. The upper terminal of the proposed Main Street Lift would have visual impacts within the context of the rest of the ski area development and would not stand out or dominate the view.

## Unique

***113. If the trails are cut well, there could be some fun biking up there. By opening the ski area for biking it would reduce pressure on the surrounding Hondo-columbine wilderness study area to open its trails to bikers. Keeping another small section of our mountains as wilderness.***

Construction and use of mountain bike trails is an appropriate use of NFS lands designated as Management Area 16 – Recreation Sites. These areas are for concentrated use, where mechanized travel is acceptable.

## Wildlife & Aquatic Species

### Thematic

***114. Bighorn sheep are common in the area and may be disturbed or could cause problems. They are known for approaching people.***

Generally, bighorn sheep have two distinct, separate summer and winter ranges. Most of the year is spent on the winter range, where the elevation is typically below 10,826 feet (Final EIS, p. 167). The proposed Main Street and Ridge Lifts would run approximately 11,340 to 12,450 feet and 11,160 to 11,700 feet in elevation, respectively. Therefore, these areas do not provide winter habitat for the bighorn. The lift would not run during the summer season, so human/sheep interactions would be limited to construction or maintenance occurring during the summer. The effects would be limited to temporary displacement of sheep due to construction and grading in foraging habitat for the upper terminal and lift towers (Final EIS, p. 168).

In 1993 the New Mexico Department of Game and Fish (NMDGF) transplanted 33 animals from the Pecos herd to the Wheeler Peak Wilderness and adjacent Columbine-Hondo Wilderness Study Area. They have done well and are often seen in the TSV permit area. The NMDGF has been capturing bighorn sheep from the Wheeler Peak area since 2003 to reduce population numbers and to bring the herds within the estimated carrying capacity. The proposed lifts are not anticipated to negatively impact the Wheeler Peak bighorn sheep population over the long term.

***115. We are concerned that impacts on the unique and fragile high alpine ecology (particularly tundra), wildlife and inhabitants of the wilderness would be too great.***

Alpine tundra is a fragile ecosystem. The Vegetation and Wildlife Resources section of chapter 3, describes the alpine tundra ecology that would be affected by the proposed lifts and the wildlife species that use this ecotype. Overall, impacts would be limited to the construction period of the proposed lifts. For sensitive wildlife, such as the pika, yellow-

bellied marmot, white-tailed ptarmigan, ermine, bighorn sheep, and American marten, the impact would be temporary displacement. For sensitive plant species, surveys for the Pecos fleabane and alpine larkspur would be conducted prior to disturbance. If any plants are discovered they would be avoided, if technically possible.

The wilderness would remain a federally protected area that would continue to provide habitat for many species over the long term (Final EIS, chapter 3 - Vegetation and Wildlife Resources section).

## Unique

- 116. *If you had an adaptive management plan to climate change for the Carson NF, you would also know how increasingly important places like Kachina peak to not only the ptarmigan, but other tundra species such as the Pika and the Marmot.***

Ptarmigan, snowshoe hare, pika and marmot are noted for being on the southern fringe of these species historic range of habitat. The range of these species has historically changed over time due to past periods of climate change. Regardless of the presence or absence of an adaptive management plan for these species their persistence in the area of the TSV permit or the surrounding area is dependent upon suitable persistent climatic factors remaining favorable on a regional scale much larger than the permit area of TSV. As the regional climate changes so will the distribution of these species over time regardless of vegetation manipulations occurring within the TSV permit boundary. Changes in species persistence at TSV are not measureable when compared to regional vegetation changes occurring in response to climatic fluctuations.

- 117. *Course Woody Debris (CWD) is important for some species but the structure of it is also important. Many species use CWD that sticks above the snow for access to the subnivean. If all CWD is laid down on the ground, it loses much of its value to wildlife. If it sticks up above the snow it will probably be considered a danger to skiers. The Draft EIS needs a more detailed description of how it will be handled so the proposal can be adequately analyzed.***

In areas where glading is proposed and along proposed lift alignments, woody debris would be removed or completely covered by a compacted layer of snow. An increase in large woody debris would occur along the edges of gladed areas, which would provide habitat and subnivean (below snow) access (Final EIS, p. 166). Refer to the Final EIS, chapter 3 - Vegetation and Wildlife Resources section for more discussion on woody debris.

- 118. *As to thinning and creating gladed areas on the mountain, both above West Basin and below chair 7, a condition should be added that care be taken not to disturb Pine Marten and Ermine. Trees that are felled should be left on the ground to provide those animals with under snow routes and cover.***

The effects analyses for the American marten and ermine in the Vegetation and Wildlife Resources section of chapter 3 indicate there would be impacts to these species from glading. Thinning would be in a mosaic pattern, rather than thinning all of the acres. Creating a mosaic pattern within the glades would fell some trees into the undisturbed portion of the glade and provide the subnivean (below snow) access and cover for the

marten. The thinning and increased snow compaction could also increase potential predation and possibly reduce some prey, such as snowshoe hare. On the other hand, thinning would promote transition from the smaller diameter structural classes to larger diameter, more suitable structural conditions.

Currently, there is very little dead and down material that would be increased in quantity, as a result of the proposed projects. In the few areas where larger trees already exist, the spacing is such that very little thinning would be necessary. The recently thinned *North American Glade* shows a noticeable positive response to understory diversity and productivity. Other prey species that are likely to respond favorably to the increased forage availability from glading would be small mammals, such as deer mice and mountain cottontail.

Overall, analyses conclude the American marten and the ermine would not be negatively affected by the proposed lifts in alternative 2 or the glading proposed in alternatives 2 and 3.

- 119. *I am also concerned about the impact of the lift on wildlife who call this area home. The presence of a ski lift, and the increased traffic and noise that lift would bring, will certainly affect wildlife already impacted by the ski area's footprint as it stands now.***

Refer to the Vegetation and Wildlife Resources section of chapter 3 for an evaluation of existing conditions and environmental consequences to wildlife from the proposed projects.

- 120. *Given this change in land use for commercial purposes, I do not think that the narrow Rio Hondo valley is served by further commercial habitat fragmentation and loss of riparian corridors and dense forests.***

All of the proposed projects would occur within TSV's existing SUP area, which is allocated in the Carson Forest Plan as Management Area 16 – Recreation Sites, or on private lands. The proposed projects are identified in TSV's accepted Master Development Plan and are consistent with projects proposed on a developed recreation site. Refer to the Vegetation and Wildlife Resources section of chapter 3 for an evaluation of existing conditions and environmental consequences to wildlife from the proposed projects. The boreal spruce-fir forests of the Carson NF are used to establish the spatial context for the cumulative effects analysis.

- 121. *White-tailed ptarmigan (WTP) are state of New Mexico endangered. In spite of the survey done for WTP, I suspect they do use Kachina peak. I have found evidence of the species near Santa Fe in similar looking habitat. Playing calls is probably not adequate to determine if an area is used. Thorough searching for droppings and/or feathers would also be necessary. WTP fly and can easily travel considerable distances between habitats. Artificial perches (e.g. ski lifts) in open non-forested country such as alpine tundra can significantly increase predation making a habitat unsuitable. If WTP do occur on Kachina peak, a ski lift would likely have significant adverse impacts. Thorough ground surveys of the entire peak and ridge area should be conducted before analyzing impacts to WTP.***

The Main Street Lift proposal is located in the Kachina Peak basin. This area was inventoried for ptarmigan in 2011 and none were located. Other observations and reports

of ptarmigan using the Kachina Peak area have been made. Rominger reported five birds in 2000, and a positive sighting of one individual was made by Wolfe in 2010.<sup>4</sup>

The habitat for white-tailed ptarmigan is alpine tundra and subalpine deciduous shrub and the Kachina Peak area is considered to be suitable summer foraging habitat for the ptarmigan. Habitats in New Mexico are at the southern edge of the range of this species. Two areas within the state are known to support the white-tailed ptarmigan. One is the Wheeler Peak Wilderness population and the other is the Pecos Wilderness population. The Kachina Peak area is considered a part of the Wheeler Peak habitat; however, it is outside the wilderness and has been a part of the TSV permit area since the late 1950s.

Braun (1979) thought the alpine vegetation was in excellent condition, but likewise felt within the Wheeler Peak Wilderness there is a lack of breeding areas and possibly winter use sites, and bush willows were not abundant. The most important characteristics of white-tailed ptarmigan wintering habitat is the presence of willow (*Salix* spp.) and soft snow to burrow in.<sup>5</sup> Braun (1969) noted in contrast to the habitats throughout most of Colorado the taller *Salix* was almost completely lacking in the krummholz in the Wheeler Peak area while the dwarf mat forming varieties were locally abundant but were unavailable from early November to mid-June. He also noted the tall willows were the most important factor in determining where ptarmigan occur in Colorado, as it comprises over 90 percent of the diet from October to June. He considered the lack of tall willow to be the limiting factor for ptarmigan in the Wheeler Peak area. Wolfe (2011) considers the amount of intact high alpine habitat is likely the primary factor limiting white-tailed ptarmigan distribution.

There are some taller willows in the Kachina basin. However, these willows are some distance from the upper habitats and occur in a small narrow strip below the upper terminal of Lift 4. The juxtaposition arrangement of the willow community does not lend itself to being available winter habitat. That area also receives heavy snow pack and is also heavily skied and compacted. With regards to breeding habitat and summer range, much of the Wheeler Peak area, over several square miles of habitat (with the exception of the lack of taller willows such as *Salix planifolia*), is ideally suited for ptarmigan in terms of rock cover and vegetation from mid-June to late October.<sup>6</sup> Within the TSV permit area, the tundra vegetation is fairly well utilized by bighorn sheep and marmots, but is currently in good condition and is not considered to be a limiting factor as a summer use area. Greater than 99 percent of the sightings or sign (feathers and droppings) in New Mexico occurred at elevations greater than 12,300 feet and 67 percent were greater than 12,470 feet elevation.<sup>7</sup> In the Wheeler Peak habitat, all birds detected were at approximately 12,400 feet elevation with signs of birds being detected as high as 13,100 feet. The proposed Main Street Lift would place the lower terminal at 11,340 feet in elevation and the upper terminal at approximately 12,450 feet. There would be approximately half of the lift line, about 1,200 feet, above tree line. The upper terminal would be located on a small bench just below the summit of the peak, which is at 12,481 feet. The slopes are quite steep and fall away fairly rapidly. It is estimated there would be

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<sup>4</sup> Wolfe et al., 2011; Wolfe, 2011

<sup>5</sup> Braun, 1971; Braun et al., 1976

<sup>6</sup> Braun, 1969

<sup>7</sup> Wolfe, 2011

approximately 350 linear feet of lift above the 12,300 foot elevation line, where Wolfe found almost all of the ptarmigan sign in the Wheeler Peak area.

The primary disturbance would be the placement of the upper terminal and one or two towers above the 12,300-foot elevation line. The disturbed habitat would be the alpine grass/sedge community. There would be no access roads constructed to these sites. Tower pads would be built by hand and by any small equipment and materials that could be airlifted to the site. There would be permanent loss of summer habitat at the footprint of the tower pads and the upper terminal. Any additional disturbed area around the upper terminal would be fairly slow to recover, due to the harsh nature of the site. The lift would not run in the summer months and would not increase summer habitat disturbance from visitors.

Based on this comment, the Vegetation and Wildlife Resources section of the Final EIS is supplemented to include the findings from additional literature reviews and analysis for the white-tailed ptarmigan.

**122. *I would believe the presence of the lift will greatly alter the breeding habitat and thermal refugia areas of the white-tailed ptarmigan. I have participated in ptarmigan surveys on Wheeler Peak with biologists concerned for their limited range and low prospects of survival in New Mexico. These areas are few and far between. It is highly likely that ptarmigan's on Kachina peak may never come in contact with their counterparts in the Truchas Mountains, or even their next door neighbors on Wheeler Peak. Ptarmigan on Kachina peak may very well be an isolated population, with little area to move should their habitat be altered. I would like to know what the Carson NF is doing to protect the white-tailed ptarmigan on Kachina Peak, and on Wheeler peak as well.***

***Again, I am less concerned with the Federal listing status of the bird than the exact locations it inhabits in the Carson NF. I am also interested in it's relative abundance within the State of New Mexico. I believe it is a very rare bird, and should be managed with the utmost care by your agency. For example, I believe it would be prudent for you, as manager of the Carson NF, to examine the entire Carson NF for known and potential ptarmigan habitat and present your findings to the public. This report would include distributions and percent of potential habitat in relation to the entire Carson Forest. Breeding and wintering habitat, and range and distribution of adequate thermal refugia should all be included in this analysis. Luckily for you, a group from the George Miksch Sutton Avian Research Center in Bartlesville Oklahoma has been studying this subject for several years. I would refer you to Don Wolfe, wildlife biologist, for more information.***

Refer to response to Comment #121. Based on this comment, the Vegetation and Wildlife Resources section of the Final EIS is supplemented to include the findings from additional literature reviews and analysis for the white-tailed ptarmigan.

**123. *Lynx and snowshoe hares (SSH): Glading will eliminate some SSH habitat by thinning the overstory, limbing and compaction of the snow. This will indirectly impact lynx. TSV is not the southern limit of lynx or SSH. SSH occur in the Sangre de Cristo Mountains as far south as Santa Fe and lynx have been traveling that far south. Lynx almost certainly were part of NM native fauna (per Dr. Jennifer Frey). SSH***

***populations fluctuate greatly. During high cycles NM can certainly support a lynx population and likely, as elsewhere, some will likely survive during low SSH cycles. The EIS needs to take a thorough look at impacts to spruce-fir habitat (as discussed above) and analyze the cumulative effects to lynx and SSH habitat.***

It is possible the lynx could venture into the TSV permit area, but would likely return further north in search of adequate populations of its preferred prey, the snowshoe hare. Glading would likely give preference to the mountain cottontail over the snowshoe hare. However, given the extensive adjacent areas of undisturbed spruce-fir habitat, along with its protected wilderness status, the proposed activities within the TSV permit area are relatively small in context. There are also over 200,000 acres of spruce-fir habitat on the Carson NF. Approximately 70 percent of this habitat type is protected through wilderness status.

The southern limit of Lynx is based upon a regional scale. The commenter notes "...lynx populations fluctuate greatly..." this is expected on a regional scale for a species on the southern fringe of its historical habitat which could easily fluctuate due to climatic changes. Though lynx have historically been found as far south as Santa Fe, the fluctuation of the southern limits of its historical range would certainly fit with this statement.

***124. Boreal owls are STATE OF NEW MEXICO THREATENED: Many of comments above concerning impacts to spruce-fir are also pertinent to boreal owls and need to be part of the analysis and cumulative effects analysis. A study of glading impacts to RBV and other small mammals is also necessary for analyzing impacts to boreal owls.***

In 2005, a boreal owl was photographed in the spruce-timber adjacent to Williams Lake attesting to the occurrence of this species in the area. Night surveys were conducted in April 2011, according to Forest Service protocol. The two largest proposed activity areas that might support this species are the proposed glade areas. Based on the preferred habitat descriptions, the lowermost portion of the Wild West Glades and the very eastern edge of the proposed Minnesotas Glades were perhaps the best of the potential habitat. Both areas were surveyed. No responses of boreal owls were solicited.

Preferred boreal owl foraging habitat is in mature older forests, especially mature spruce-fir forests. Prey is mainly made up of small rodents, especially red-backed voles (*Clethrionomys gapperi*). Birds and insects are also part of their diet in small amounts. When red-backed voles are low in population numbers, boreal owls shift to alternative food sources such as shrews (*Sorex* spp.) and small passerine birds.

Hadley and Wilson (2004) investigated short-term effects of ski-run development on the dynamics of small mammal populations at Vail Ski Area, Colorado. They compared a new ski run, an experimental ski run with added woody debris, a forest adjacent to a new ski run, and a control forest outside ski development. In four summers (1998 to 2001), 16,800 trap nights resulted in 1,276 captures of 668 individuals. Before ski run development, red-backed voles were most abundant in forested areas, but after, density was greatest in the forested site adjacent to a new ski run and next highest on the experimental ski run. Red-backed vole survival was similar across sites and years.

Hadley and Wilson's study supports the effects analysis for the boreal owl documented in chapter 3. The proposed activities within the TSV permit area would not negatively affect the boreal owl or its habitat and would be beneficial toward its principal prey species (red-backed vole) habitat by increasing the amount of dead and downed material.

***125. Southern red-backed voles (SRBV) are the primary food of marten and important to boreal owls. I strongly suspect this species will be significantly impacted by glading. There are areas that have been gladed on TSV. Before concluding that glading does not impact SRBV a trapping survey of gladed and ungladed areas needs to be conducted.***

As described in the response to comment #124, Hadley and Wilson (2004) investigated short-term effects of ski-run development on the dynamics of small mammal populations at Vail Ski Area, Colorado. They compared a new ski run, an experimental ski run with added woody debris, a forest adjacent to a new ski run, and a control forest outside ski development. In four summers (1998 to 2001), 16,800 trap nights resulted in 1,276 captures of 668 individuals. Before ski-run development, the red-backed vole was most abundant in forested areas, but after, density was greatest in the forested site adjacent to a new ski run and next highest on the experimental ski run. Red-backed vole survival was similar across sites and years.

Hadley and Wilson's study supports the effects analysis for the red-backed vole documented in chapter 3. The proposed Wild West Glades and Minnesotas Glades should retain and improve habitat conditions favorable to the red-backed vole. There would also be an increase in downed woody material associated with the thinning. The burning of excess materials in small brush piles would not have any effect on the vole as long as adequate amounts are retained. The southern red-backed vole and its habitat would not be negatively affected by proposed activities.

***126. Glading: Spruce-fir is not a park-like or savanna forest type. Thinning and limbing in spruce-fir creates an unnatural condition. Contrary to the conclusions in the Draft EIS, I believe glading will have adverse impacts on American marten, boreal owls, snowshoe hare, lynx and southern red-backed voles, and likely other spruce-fir forest species. Further, compaction of the snow in spruce-fir caused by heavy skiing will likely adversely impact these species.***

There are a wide variety of forest types and designations identified as management areas in the Carson Forest Plan. These include spruce-fir habitats, along with all the other habitats occurring on the Carson NF. All of these management areas have management objectives. The 1,268-acre TSV permit area is not within any other vegetation type or management area. It was identified as a separate and distinct management area to be managed as a developed recreation site. It is acknowledged the management of recreation activities may have impacts to habitats, such as the spruce-fir. However, thousands of acres of this habitat type surround the TSV permit area and it is protected by wilderness status. There are also over 200,000 acres of spruce-fir on the remainder of the Carson NF. The majority (about 70 percent) of this habitat type is also in a protected status.

***127. The Forest Service Continues to repeat the mantra that there is adjacent habitat in undisturbed wilderness for wildlife species of concern that likely will be displaced by this TSV Master Plan Project. Much of the wilderness is above treeline or rock and ice and not the quality of spruce-fir and mixed conifer and aspen wildlife needs. Each time***

***TSV cuts up, develops, and puts ski lifts, towers, runs, parking lots, restaurants, etc. in the permit area - more remaining islands of habitat are lost to this development. Another vital piece of wildlife habitat will be permanently lost by this project. This violates NEPA, being an irretrievable commitment of resources.***

Refer to the response to comment #126. The Forest Service has analyzed the adjacent Wheeler Peak Wilderness and has established the habitat types are available there. Where appropriate, the Forest Service discloses which species have additional available habitat in protected wilderness.

***128. Snags: The CNF guidelines are poor, but at least there is something. The Draft EIS states in one place that snags greater than 15” dbh won’t be cut, but elsewhere it states 10-12” dbh won’t be cut. Which is correct? How many snags will be left, only the minimum of 3/ac? Snags greater than 6” dbh are useful to wildlife.***

The EIS is not contradictory, as this comment implies. In describing the proposed glading in alternatives 2 and 3, chapter 2 states, “Most of the trees to be removed would be smaller than 10 inches in diameter-at-breast-height (dbh).” In the analysis for hairy woodpecker in chapter 3, Vegetation and Wildlife Resources section, the discussion states, “Retention of standing dead trees larger than 15 inches in diameter would keep potential cavity nesting habitat for cavity nesting prey species.” The analysis points out that the larger the snag, the better the attributes for providing cavity nesting habitat and eventually large woody debris. If there are 15 inch snags available, they would be given priority for retention over the smaller snags, unless they pose a hazard to skiers.

Carson Forest Plan standards and guidelines for snags and down logs (Chapter C. Forest-wide Prescriptions Wildlife and Fish-7) are to be applied on activities in management areas allocated for timber harvest and timber stand improvement. Mitigation measures (Final EIS, chapter 2) for the action alternatives include:

- Try to retain three snags per acre greater than 10 to 12 inches dbh, unless there is a potential hazard to skiers.
- Where there are clumps of aspen in the gladed runs, try to retain aspen snags greater than 10 inches dbh, unless there is a potential hazard to skiers.
- Within gladed runs, try to retain standing dead and down trees greater than 8 inches in diameter, within a 30-foot radius of a spring or seep, unless there is a potential hazard to skiers.

***129. Species listed by the State of New Mexico as Threatened or Endangered are so listed because they are in trouble in our state. There is no mention of which species are state listed even though they are analyzed. I do recognize that Forest Service sensitive species include state listed species but it is important to point out in the document which species are also state-listed.***

The R3 Regional Forester’s Sensitive Species List includes all Threatened and Endangered species listed for the State of New Mexico. Their status has been added to table 21 in chapter 3, Vegetation and Wildlife Resources.

***130. Please document how the best available science is taken into account in planning to provide for diversity in the SUP area. Specifically, we have concerns for threatened,***



*endangered and sensitive species in the SUP area and the impacts of the MDP on these species and their habitats: lynx, American marten and American pika. Other species for which we have concerns: Boreal Owl (State of NM Threatened and SGCN, and USFS sensitive), Mexican Spotted Owl (federal Threatened, State of NM sensitive and SGCN, USFS sensitive), White-tailed Ptarmigan (State of NM Endangered and SGCN, USFS sensitive), Peregrine Falcon (State of NM Threatened and SGCN, USFS sensitive), Golden Eagle (State of NM SGCN), Goshawk (State of NM sensitive and SGCN, and USFS sensitive), and Bighorn Sheep (State of NM game species and SGCN, and USFS sensitive).*

Using the best available science, the impacts to federally listed species are analyzed and documented in a Biological Assessment, which is in the project record. Using the best available science, the impacts to Forest Service sensitive species are analyzed and documented in a Biological Evaluation, which is also in the project record. Providing for all the habitat needs for every species within the Taos Ski Valley SUP area is not the objective or requirement of the analysis. The requirements are to analyze and disclose the likely effects based on best available science and to mitigate those effects, where possible.

**131. *The Wild-west glade looks to me like a pretty good idea. Although I do have the notion that the forest, if properly managed, could be converted to Northern Goshawk and Spotted Owl habitat, I do not believe it is in that condition at this time and I do not suspect the Carson NF is interested in entertaining this type of long-range management plan.***

The 1986 Carson Forest Plan allocates the entire TSV SUP permit area to Management Area (MA) 16 – (Developed) Recreation Sites. As such, TSV provides a valuable source of developed winter recreation on public lands. Other areas of the forest are more suitable for management as northern goshawk and Mexican spotted owl habitat.

**132. *Per the White-tailed Ptarmigan, I think what you will find is that the Kachina lift is proposed directly on top of some of the best and only remaining ptarmigan habitat in New Mexico. With minimal consultation of an ornithologist, you would also understand that large objects capable of supporting avian predators such as hawk, eagles, owls and ravens is not helpful to sensitive tundra species such as the ptarmigan. In fact the very presence of this lift may serve to displace the ptarmigans entirely. Objects of this size and proportion are foreign to the tundra, and represent a dramatic change within ptarmigan habitat. While the perching predators are a direct and measurable effect of this construction, the presence of the objects themselves may even displace the birds simply by being there. Ptarmigans will simply retreat from the area once poles are in place, casting imposing shadows across their low-lying habitat. This is not simply theory, the structural affects of large objects has been noted on many tundra and prairie species.***

With the exception of the lack of taller willows such as *Salix planifolia*, much of the Wheeler Peak area, over several square miles of habitat, is ideally suited for white-tailed ptarmigan breeding habitat and summer range. It has the rock cover and vegetation from mid-June to late October.<sup>8</sup> Greater than 99 percent of the sightings or sign (feathers and

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<sup>8</sup> Braun, 1969

droppings) in New Mexico occurred at elevations greater than 12,300 feet and 67 percent were greater than 12,470 feet elevation (Wolfe 2011). It is likely only the upper terminal and one tower of the proposed Main Street Lift would be above 12,300 feet elevation.

Based on this comment, the Vegetation and Wildlife Resources section of the Final EIS is supplemented to include the findings from additional literature review and analysis for of the white-tailed ptarmigan.

**133. *What about the numerous beaver dams in that area of the river and downstream?***

Beaver dams will not be impacted by the proposed actions. There are no direct actions occurring in the stream channel of the Rio Hondo.

**134. *Increasing summer use of TSV is also a concern and the Draft EIS needs to take a much harder look at this proposal. Mountain bike incursion into TSV forest in the summer will threaten soil health and wildlife habitat security. Will dogs be able to access this area on lifts with the mountain bikers? Forest Service biologists have documented concerns regarding this in the past (especially dogs transmitting canine diseases to animals like pine marten).***

Within the TSV permit area, avalanche dogs are present all winter long and hikers are known to take their dogs when hiking the slopes during the summer. To the Forest Service's knowledge, no reports of wildlife harassment or disease transmission from domestic dogs within the SUP area have been reported. Dogs will not be allowed on the lifts at TSV.

**135. *Instead of questionable reliance upon mitigation to hope these wildlife populations persist here, the Forest Service must require TSV to modify or discontinue any actions that reduce or negatively affect marten or lynx habitat.***

The 1986 Carson Forest Plan allocates the entire TSV SUP permit area to Management Area (MA) 16 – Recreation Sites. As such, TSV provides a valuable source of developed winter recreation on public lands. Other areas of the forest are more suitable for management as habitat. Refer to the response to comments #126 for further clarification on how the Carson NF's management direction is based on the allocation of management areas.

**136. *Because the New Mexico Department of Game and Fish has conducted several years of pine marten surveys in Northern New Mexico and documented that TSV contains some of the only remaining populations of pine marten in the state it is critical that the Forest Service take measures to insure this population is protected and reduce any threatens to its existence. The agency has a legal obligation to do this as well.***

Holyan and others (1998) cite at least a dozen studies and publications either asserting that martens can become "adapted to living in close proximity to man when afforded protection from hunting, trapping and molestation" or recording martens resting at anthropogenic structures including cabins, trailers, debris piles, cut logs, stumps and under woodsheds. In this study the extensive use of more remote cabins by martens is probably more closely related to the woodsheds and lift shacks, than the nice cabins in the Village of Twining. However, many of these sites are only seasonally occupied over a short time period and the covered decks and wood sheds could easily provide the same

opportunities for marten foraging, resting or thermoregulation as the cabin sites recorded by Holyan. Of course, the big difference is studies such as this one are located in core high quality habitats with extensive marten populations. Northern New Mexico is on the very edge of this species range.

A prudent biological question could be: Is there a symbiotic relationship due to biological diversity in habitats supporting a more diverse prey base, as opposed to habitat homogeneity? Also is there the potential of abnormally high rodent population attracted to the presence of stacks of firewood, covered decks, wood sheds and even food debris that may have helped support the TSV marten population during down cycles in prey availability?

Also refer to the response to comment #118.

- 137. *We are especially concerned regarding the wildlife section and the lack of data. What studies does the Forest Service document regarding increased winter and summer use into habitat and range for rare species such as Canada lynx and pine marten. What data supports the determination that there's no negative effects to these species from this Phase I projects? What data does the Forest Service have to show that increase human distance into lynx or marten habitat will not cause these animals to leave the area? Most studies by the Forest Service and USFWS show that species are harmed by such incursion into their use areas. With species like lynx and marten at the south end of their range and in decline and of great concern - any ore loss or conversion of their habitat is unacceptable.***

The effects of the proposed projects in alternatives 2 and 3 are documented in the Final EIS, chapter 3 Vegetation and Wildlife Resources section, the Wildlife Effects Report, the Biological Assessment for federally listed species, and a Biological Evaluation for Forest Service sensitive species. These analyses are based on the best available science, which include on-the-ground surveys of the affected areas, published literature, and the professional assessment of a wildlife biologist with thirty-nine years of experience.

Refer to the Vegetation and Wildlife Resources section of chapter 3 for a detailed analysis of the effects by alternative.

- 138. *American marten is a STATE OF NEW MEXICO THREATENED species. While the Draft EIS indicates there is plenty of spruce-fir habitat, marten are very limited in NM. The TSV area is the best population in the state. Marten are rare in the San Juan Mountains. Marten occurred in the Pecos Wilderness but recent efforts to verify their presence there have failed. At best, they were rare in the Pecos and may be extirpated. Possibly there are some marten on Taos Pueblo, but that is only a guess. The population in the Rio Hondo drainage is apparently the only healthy population in the state. Before concluding that impacts at TSV are insignificant, it would be appropriate to carefully analyze how much and where good marten habitat exists. A cumulative effects analysis also needs to look at how much good marten habitat has been lost already on Forest and private land. Further, there is considerable building and planned building happening in the heart of marten habitat on private land, and future plans by TSV, as listed in the Draft EIS, will impact more. Even from a cursory glance around the area it is obvious a lot of marten habitat has been lost. Predicted climatic impacts to spruce-fir will likely impact marten habitat further. The current proposal***

***will eliminate directly some marten habitat (new lifts) and likely cause some habitat to become unusable during winter (glading). The photo in the Draft EIS of the Minnesota Glading area appears to prime marten habitat and it won't be after thinning. The current analysis of impacts to marten is not adequate. A thorough cumulative effects analysis is necessary for American marten.***

Refer to the Vegetation and Wildlife Resources section in chapter 3 and previous responses regarding the American marten. Your comment again gives rise to the question of species adaptability. If populations of martens are not persisting in seemingly suitable habitats afforded the protection of wilderness, is there the possibility of a more complex relationship existing in the upper Hondo Canyon? The mining and other consumptive activities in the community of Twining predates the TSV activities by over half a century. The canyon was the only access and also had scattered developments as well, yet the species has persisted given an active and consistent human presence.

As discussed in the response to comment #136, Holyan and others (1998) cite at least a dozen studies and publications either asserting that martens can become “adapted to living in close proximity to man when afforded protection from hunting, trapping and molestation” or recording martens resting at anthropogenic structures including cabins, trailers, debris piles, cut logs, stumps and under woodsheds. In this study the extensive use of more remote cabins by martens is probably more closely related to the woodsheds and lift shacks, than the nice cabins in the Village of Twining. However, many of these sites are only seasonally occupied over a short time period and the covered decks and wood sheds could easily provide the same opportunities for marten foraging, resting or thermoregulation as the cabin sites recorded by Holyan. Of course, the big difference is studies such as this one are located in core high quality habitats with extensive marten populations. Northern New Mexico is on the very edge of this species range.

Certainly the majority of marten habitat is remote and wild and the majority of studies are related to these conditions. However, there are examples of habitats in close proximity to humans similar to the situation at TSV.

***139. We also have additional concerns related to the planned construction of the lift to Kachina Peak. One concern is that mortality from collisions with lift cables is well documented in a number of species of grouse and other avifauna. Furthermore, the structures and service roads would contribute to fragmentation, likely leading to greater predation risks to White-tailed Ptarmigan, Dusky Grouse (*Dendragapus obscurus*, formerly called Blue Grouse), and even American pika (*Ochotona princeps*). And, the destruction of trees and brush (including willows), both for the actual lift and for the downhill runs, would most certainly impact all of the above species plus a myriad of other wildlife species.***

There are many documented accounts in Europe of collisions with a wide variety of ski lifts resulting in mortality to ptarmigan and grouse. The worst of these examples likely occurs in Carin Gorm, Scotland.<sup>9</sup> In this case, the entire ski area development including the base area was constructed within ptarmigan habitat, which included over 6 miles (10 km) of cables and wires in the core of the habitat. In comparing the Carin Gorm example with the site of the proposed Main Street Lift, there are considerable dissimilarities in

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<sup>9</sup> Watson and Moss, 2004

terrain and heavy use of low visibility surface tow lifts. The lack of resemblance makes any direct comparisons somewhat impractical; except for the fact collisions are a possibility.

Ski areas were also studied in France and their effects on black grouse.<sup>10</sup> Again, there are significant dissimilarities, including a different species of grouse. The study area of Les Arcs has 10 kilometers of electric and mechanical cables per square kilometer of grouse habitat. It is, however, interesting that 88 percent of collision mortalities occurred in winter (December to April). Also, 95 percent of the accidents occurred on surface tow lines, while only 5 percent were on chairlifts that are much more visible. Of that 5 percent, the majority occurred while the chairs were removed from the cables for repairs. The proposed Main Street Lift is a fixed grip chair design with the chairs attached year-round.

A number of ski areas in Colorado have lifts extending into the alpine tundra habitat and the terrain, elevation, habitats, and overall conditions are significantly more similar to TSV than in Europe. For this analysis, Dr. Braun and Rick Thompson were contacted for more analogous information regarding any white-tailed ptarmigan and cable collisions at Colorado ski areas.

Dr. Braun is likely the most noted and published authority on white-tailed ptarmigan in the Rocky Mountains. He had worked on both Loveland Basin and Keystone ski areas and it was his opinion ptarmigan generally avoided the heavily skied areas in the higher alpine.<sup>11</sup> He thought some males might remain at higher elevations, unless the terrain was groomed and the taller Salix was destroyed or rendered inaccessible by grooming. He was unaware of any chairlift cable collision mortality examples in Colorado and none had been reported to him. He was also unaware of any white-tailed ptarmigan studies documenting any collision mortality with chairlifts in Colorado. He did know it had been well documented in Europe, but did not believe it has ever been a problem in Colorado.

Thompson had never heard of any ptarmigan collisions with chairlifts or cables in Colorado, and, to his knowledge, none had ever been reported or documented. It is his professional opinion that ski area activities are more likely to displace ptarmigan from wintering habitat, than to cause collisions.

***140. Replacing existing lifts and implementation of “glading” both the Minnesota and Wild West Glades should be done following the Departments recommendations regarding effects on wildlife described in our previous response.***

It is assumed that the commenter is referring to the following four recommendations from the New Mexico Department of Fish and Game letter submitted during scoping:

- Work to begin after June 1 to reduce potential of disturbance on black bear maternity sites in the area. Avoid areas with obvious migratory bird nest activity as required by the Migratory Bird Treaty Act.

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<sup>10</sup> Miquet, 1990

<sup>11</sup> Braun, 2012

- Survey for and identify Red Squirrel middens on glade runs; protect any middens found and leave a buffer of at least 25 feet.
- Retain any large downed logs in area; leave additional logs if possible during clearing of glade run for protection of vole habitat important for Pine Martin (NM Threatened and USFS sensitive species).
- Avoid piling/burning near intermittent streams and springs by leaving buffer area to protect water quality as per “stream side management zone.”<sup>12</sup>

The second and fourth recommendations “Survey for and identify Red Squirrel middens” and “Avoid piling/burning near intermittent streams and springs” are in the Mitigation Measures Common to All Alternatives table in Chapter 2 of the EIS.

The third bullet was modified to account for skier safety of clearing ski trails to “Try to retain downed logs in the gladed runs, unless there is a potential hazard to skiers.”

The first recommendation, to begin work after June 1, has been added to the Final EIS for appropriate projects.

## Appendix A: Commenters on the Draft EIS

The following agencies, individuals and organizations provided comments on the Draft EIS. This table provides a correspondence between commenters and substantive comments that were addressed in the Response to Comments. Some comments were heard more than once and were grouped into thematic comments and responded to accordingly. Others comments were unique, and those comments were responded to individually as indicated in the organization of the Response to Comments. The Forest Service appreciates the level of participation in this process.

Commenter	Response to Comment
Andrew Lyons	N/A
Andy O'Reilly	57, 58, 61, 32, 119, 87, 59, 95, 23, 35
Ann Lerner	N/A
Ann Smith	62
Anonymous	N/A
Arroyo Hondo Community Association Board of Directors et al.	105, 75
Bill Orr	N/A
Bob Wildinson	N/A
Brenda Clark	74
Brian Shields	N/A
Brooke Ann Zanetell	120, 84
Bruce and Pam Coleman	N/A

<sup>12</sup> Carson National Forest, 1990

Commenter	Response to Comment
Bruce E. Marier	N/A
Bryan Bird	130, 39, 87, 112, 93
C William Dedmon	N/A
Carl Jones	N/A
Carol Weston	N/A
Cass Adams	73, 58, 11, 87, 112, 68, 48
Charles and Edy Anderson	N/A
Charles W. Fawns	N/A
Chris Ellis	8
Clay R. Williams	49, 51, 14, 62
Dace Madore	87, 2, 35, 10, 61
Daniel Greenwald	4, 15, 57, 3, 87, 112, 11
Dann Kelehan	N/A
Dave Jensen	N/A
David Buck	N/A
David T. Dubinsky	52, 114, 19, 50, 59
Denham Clements	61
Diane Friedman	N/A
Don Wolfe	112, 121, 139
Doug Pickett	N/A
Douglas Kaufman	69, 115, 78
Douglas Longfield	62, 87
Elizabeth A. Mitchell	N/A
Emily Sadow	56, 88, 59, 84, 91, 105, 63, 113, 80, 72, 79, 27
Eric Klein	N/A
Erik Ranger	N/A
Fernando Martinez	105, 106
Frank Venaglia	N/A
Gene and Mary Montimer	3, 62
George Basch	N/A
George Brooks	N/A
George Reading	N/A
Gregory Huffaker	N/A
Guy Wood	62, 70
Hans Van Heyst	N/A
Henry and Kathleen Caldwell	N/A
Herb Marchman	N/A

Response to Comments

Commenter	Response to Comment
Ivan Locke	112, 33, 13
James and Flora Lee	57, 61, 88
James Day	N/A
James P. Bearzi	93, 111, 94, 110
James W. Ross	N/A
Jay Wood	N/A
Jean Mayer	N/A
Jeff Ogburn	57, 59, 122, 132, 116, 57, 131, 3, 100, 99, 53, 109
Jerome de Bontin	N/A
Jim Sanborn	67, 7, 5, 59
Joanie Berde	20, 29, 36, 127, 137, 136, 135, 40, 31, 92, 110, 87, 115, 57, 134, 25
Joel Schantz	N/A
Joel Serra	N/A
Joel Tinkl	82, 6, 11, 52
Johanna DeBaise	115, 92
John and Janet Mockovciak	N/A
John and Polly Wood	N/A
John D. Rice	N/A
John H. Mantis	N/A
John King	88, 58
John Nichols	44, 97
John Zias	N/A
Jon Klingel	43, 30, 11, 57, 84, 86, 129, 128, 117, 126, 138, 125, 124, 123, 121
Judi G. Friday	74
Julie Gittings	N/A
Julie Roybal	93, 111, 94, 110
Justin Kosiba	70, 74
Karen Powelson	89, 81, 7, 35
Kelly Farewell	91, 57, 88
Ken Bergren	N/A
Krista Steen	59, 34, 133, 66, 83
Kristin Ulibarri	112, 113, 57
L. Rupert Chambers	79
Laurie Medley	N/A
Lawrence Jones	112, 11, 88



Commenter	Response to Comment
Linda Stabler	N/A
Matt Pincus	N/A
Matt Wunder	115, 140
Matthew Adams	69, 70, 73, 57, 32
Michael Whitney	N/A
Monique Jacobson	N/A
Mr and Mrs. Michael Prucnal	N/A
Nancy Wellmann	46
Neal King	77
Paddy McNeely	N/A
Pamela D. Harris	106, 108, 107, 42
Patrick Grace	112, 61
Peggie Brandan	N/A
Peter Hofstetter	N/A
Peter J. Talty	N/A
Peter Meyer	70, 62
Philip Handmaker	65
Randall C Johnson	N/A
Randolph Pierce	76, 59, 60, 49, 57
Rhonda Smith	1, 41, 26, 38, 83, 98
Richard Bressan	N/A
Richard S. Edelman	N/A
Robert A. Block	N/A
Robert Barton	N/A
Robert C. Cudd, III	N/A
Robert Dunning	N/A
Robert M. Fitch	N/A
Robert Nightingale	N/A
Robert Rotman	70
Robert Smith	N/A
Ross Ulibarri	N/A
Sarah Mantis	N/A
Sean Kelly	114, 64, 32, 59, 18, 57, 50, 47
Sharon O. Mitchell	N/A
Sherry Prud'homme Parsons	N/A
Stephen R. Spencer	N/A
Stephen Rose	118, 92, 114

Response to Comments

<b>Commenter</b>	<b>Response to Comment</b>
Terry Clark	74, 71
Theodore Villicana	28
Thomas Schulze	N/A
Tim Fowler	13
Timothy Lopez	N/A
Todd Mantz	71
Tom Wittman	N/A
Tony Herich	75, 32, 91, 92, 21
Walter Carl Fesler	14
Wendy Kaggerud	16, 35, 59