2.0 Proposed Action and Alternatives

2.0 PROPOSED ACTION AND ALTERNATIVES

2.1 PROJECT LOCATION AND SURROUNDING USES

Mammoth Mountain Ski Area (MMSA) lies to the west of the Town of Mammoth Lakes (Town) in the Inyo National Forest. The Town is a destination resort community located in southwestern Mono County, approximately 37 miles northwest of Bishop and approximately 30 miles east of Yosemite National Park on the eastern side of the Sierra Nevada mountain range. The Town lies approximately three miles west of U.S. Highway 395, along Minaret Road (SR-203) as shown on Figure 1 on page 13, which indicates the regional and project vicinity.

The MMSA serves as the winter recreation hub of the Town and the Eastern Sierra Nevada Mountain Range. Currently, MMSA includes 3,256 acres of ski terrain, 27 chairlifts, and four portal facilities including the Main Lodge (including Chair 4 and The Mill), Canyon Lodge, Eagle Base, and the North Village (The Village).

The proposed Ski Back Trail is located within a relatively localized and narrow area between Minaret Road and existing residential development (Mammoth Slopes). As shown in the aerial photograph in Figure 2 on page 14, the proposed trail alignment extends in a west to east direction, paralleled by Minaret Road to the north and at a higher elevation than the proposed trail alignment and the Mammoth Slopes residential development located to the south of and at a lower elevation than the proposed trail alignment.

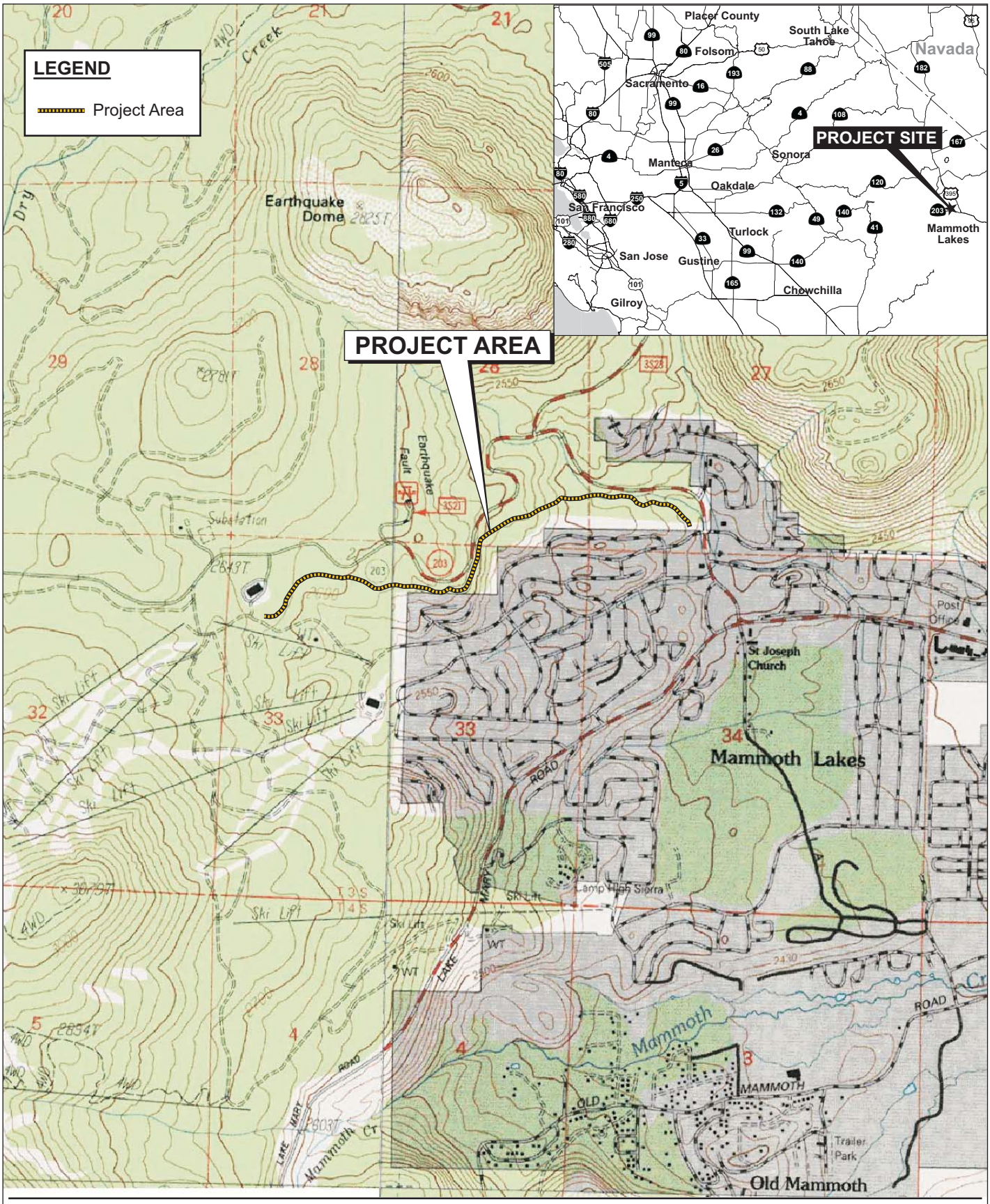
2.2 EXISTING CONDITIONS

a. MMSA

Currently, during a typical winter Saturday, MMSA accommodates approximately 13,500 skiers, which is the established "design day" for purposes of traffic planning, capacity analysis, and the level of service assumed by the Town to adequately accommodate all the skiers on the mountain. However, during peak days, which include the week around Christmas Day, Thanksgiving weekend, Martin Luther King Day, and Presidents Day weekend, there are over 19,000 skiers/snowboarders on the mountain.[7]

The Canyon Lodge portal is the most used base facility on the mountain. As such, it services approximately 8,000 skiers a day and is also the pass through for skiers originating at

[7] *Peak days in excess of this "design day" may occur 10 to 12 days per season.*



PCR

0 1000 2000 Feet

Figure 1
Regional and Project Vicinity Map

Source: USGS Quadrangle Mammoth Mt. and Old Mammoth, CA.

PCR

N

450 0 450 Feet

Source: Triad Holmes, Inc., 2007.

Figure 2
Aerial Photograph

The Village portal. The Canyon Lodge and Village portal includes chairs 7, 8, 16, 17, 22, Poma, Heimo's Platter, Canyon Carpet, and Canyon Carpet West; and have an existing lift capacity of 6,050 skiers at one time (SAOT) and trail capacity of 4,427 SAOT. The addition of the Ski Back Trail would provide additional terrain to help accommodate down-slope demand and reduce over-crowding. In addition, The Village portal currently does not have any down-slope capacity and this project would provide that recreational amenity.

The Village Gondola down-load capacity is inadequate to service the skiers originating at The Village portal. This is because skiers typically arrive and up-load in the morning over a two hour period. However, at the end of the day skiers generally depart over a one hour period, exceeding the down-load capacity of the Canyon Lodge Gondola and similarly, resulting in longer lines for the buses going from the Main Lodge to The Village. Specifically, it has been observed that demand for the gondola returning to The Village exceeds capacity, resulting in a queue of approximately 700 skiers waiting in line for 20 minutes on peak Saturdays and a queue of 350 skiers waiting in line for 10 minutes on typical Saturdays. In addition, on a typical winter Saturday, with good weather conditions, skiers will tend to stay until the end of the day and lines of up to 200 to 300 skiers are common, waiting for Canyon and Main Lodge buses respectively, between 3:30 P.M. and 4:30 P.M.[8] Finally, traffic conditions at the Minaret Road/Forest Trail Road intersection are a level of service (LOS) F for east and westbound traffic, which is below the Town's criteria of LOS D. Meanwhile, the Main Street/Minaret Road intersection currently functions at a LOS C, however, during peak days (including the week around Christmas Day, Thanksgiving weekend, Martin Luther King Day, and Presidents Day weekend), the LOS drops to well below LOS D.[9] During these peak days, traffic conditions are unstable, often resulting in congested stop-and-go conditions on Minaret Road from the Main Street intersection, northerly through the Forest Trail Road intersection and up to the Earthquake Fault, particularly for southbound traffic.[10]

b. Project Area

The recommended Ski Back Trail alignment is characterized by a moderately dense cover of Jeffrey pines and Red Fir, with trees ranging from several inches to nearly 80 feet above the ground surface. The understory is a mixture of manzanita type shrub, yellow-brown ground cover, and fallen woody debris. The dominant cover is sunny, open areas consisting of greenleaf manzanita, pinemat manzanita, tobacco brush, big sagebrush, and antelope bitterbrush. The

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8 *Communications with MMSA Transportation Supervisor, Paul Wedre.*

9. *Main Street/Minaret Road traffic data as reported by LSA in a report prepared for the Town of Mammoth Lakes, October 1, 2004.*

10. *The Earthquake Fault is located approximately 1.9 miles northwest of the Lake Mary Road/ Minaret Road intersection.*

dominant cover on shaded slopes consists of less common shrubs; the understory is comprised mainly of herbaceous perennials and grasses, including nude buckwheat and bottlebrush squirreltail. Although Minaret Road and the residential areas are relatively close to each other, there are only a few areas along the proposed alignment where these facilities are visible to each other due to the elevation differences and existing stands of trees.

2.3 PROPOSED ACTION

The Ski Back Trail would extend from 8,620 feet in elevation, near the terminal of Chair 7, to The Village at approximately 8,080 feet in elevation; refer to Figure 3 on page 17 for an illustration of the proposed Ski Back Trail alignment. The 7,800 linear foot trail would have an overall drop of approximately 540 feet in elevation. Please note, that in order to provide ease of description, locations along the trail have been defined as "Stations," where Station 78 represents the top of the trail as defined by it's length of 7,800 linear feet and Station 00 would be where the trail terminates. The average width of the trail would be 22 feet in order to accommodate snow grooming equipment. It is anticipated that the Ski Back Trail would be attractive to intermediate level and above, downhill skiers.

a. Construction

The trail will follow the natural slope and grade of the terrain and have a six to nine percent grade for the majority of the alignment. In order to maintain skiable pitch in the six steeper sections of the trail, slope retention would be necessary. Therefore, the slopes would be maintained utilizing geotextile/native boulder construction with native rock walls representative of the area at a 2:1 stabilization slope in order to blend with the natural terrain and vegetation. As proposed, the four native rock walls would be a maximum of four feet high with the exception of one soil-nail wall that would be a maximum of 12.5 feet high at center.

As described above, the proposed Ski Back Trail alignment and construction would utilize down-slope grade cutting and slope retention techniques where necessary rather than fill, in order to minimize the disturbance of the natural terrain, existing bike trails, and visual impacts to the residents in the adjacent Mammoth Slopes neighborhood. Construction of the Ski Back Trail would require removal of vegetation of between 40 and 100 feet and a total grading area of 6.16 acres. Trail design and construction would avoid tree removal to the extent feasible, while allowing for construction of a safe, viable skier route. Both temporary and permanent erosion control measures would be installed including revegetation of the trail surface with native grasses and a mix of native shrubs and wildflowers for the disturbed slope. Minimal hauling would be required for the project since the existing dirt that would be cut would be utilized to fill in the areas of the Ski Back Trail were required and/or stored on property to be used at other location on the mountain.

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N

450 0 450 Feet

Source: Triad Holmes, Inc., 2007.

Figure 3
Proposed Ski Back Trail Alignment

Trail and retaining wall construction would generally utilize existing access corridors, including utility pole lines and utility access roads from Minaret Road. However, establishment of additional corridors would be necessary in order to provide adequate access points to the trail.

As illustrated on Figure 3, a total of four temporary access roads would be developed from Minaret Road to Stations 66, 55, 18, and 2, of the proposed Ski Back Trail. The temporary access roads would be approximately 10 to 15 feet wide, accommodating one-way traffic and providing appropriate traffic safety measures at the access points to Minaret Road. The temporary access road surfaces would be unimproved but would be constructed with appropriate drainage controls. After completion of the Ski Back Trail, the temporary access roads would be decommissioned by grading the compacted soils and revegetating the areas with native plants.

The Ski Back Trail would terminate on a private parcel on Forest Trail Road, immediately downhill of the Val d'Isere condominiums. There is an agreement in place with the owner of the parcel on which the trail terminates, that the owner will be responsible for the design and construction of a bridge over the Forest Trail Road connecting skiers from the Ski Back Trail to The Village.

b. Operations

During use of the trail, snowmaking would occur as necessary. Snowmaking generally only occurs early in the ski season (November to December) and it is estimated that in an average year a total of 60 hours of snowmaking activities could occur. The times of day for snowmaking would vary and would be dependent upon ambient temperatures (around 32 degrees Fahrenheit). When required, it is anticipated that up to 10 mobile snow guns could be dispersed along the Ski Back Trail. On average, the trail would be groomed once a day, although on heavily-trafficked days, an additional grooming pass may be required. It is anticipated that it would take approximately 15 minutes each way, for the bio-diesel snowcat groomers to groom the trail. Snowmaking and grooming would not take place between the hours of 8:00 P.M. and 7:00 A.M.

2.4 CONSTRUCTION SCHEDULE

Construction of the Ski Back Trail is anticipated to begin in May extending through October. Construction is anticipated to occur from eight to 10 hours a day, five days a week. The following lists the anticipated phases of construction activity and the anticipated amount of days required.

- Installation of temporary erosion control measures/Best Management Practices (BMPs) for approximately 10 days;
- Clearing and grubbing for approximately 15 days;
- Tree cutting and stump removal for approximately 20 days;
- Initial right-of-way grading, cut, and fill for approximately 45 days;
- Retaining wall construction for approximately 40 days;
- Storm drain improvements for approximately 15 days;
- Final grading and signage for approximately 15 days; and
- Permanent erosion control measures/reseeding for approximately 15 days.

2.5 PROPOSED ALTERNATIVES

The National Environmental Policy Act (NEPA) requires the consideration of a range of reasonable alternatives to the Proposed Action. Alternatives must be feasible and must meet the purpose and need of the Proposed Action. The range of alternatives required is governed by a "rule of reason," which means that only those feasible alternatives necessary to permit a reasoned choice need to be considered. Reasonable alternatives are those that are practical or feasible based on technical, economic, and other considerations. Analysis of the No Action Alternative is specifically required, as is a discussion of those alternatives considered but rejected from detailed consideration.

Three alternatives have been defined and are analyzed in the document. Each alternative is described below. Table 1 on page 20 summarizes the key components of the Proposed Action and the alternatives.

a. Alternative 1 – Original Alignment Proposal

The Original Alignment Proposal that was originally proposed included, on average, steeper slopes and a straighter alignment. However, as a result, it also included a substantial amount more cut and fill, tree removal, and impacts to the existing mountain bike trails. As illustrated in Figure 4 on page 21, the Original Alignment Proposal Alternative coincides with the proposed alignment for approximately 1,600 feet at the upper reach and then turns north at approximately Station 60 for approximately 200 feet. The Original Alignment Proposal proceeds for approximately 400 feet up-slope in a direct west to east direction until

Table 1

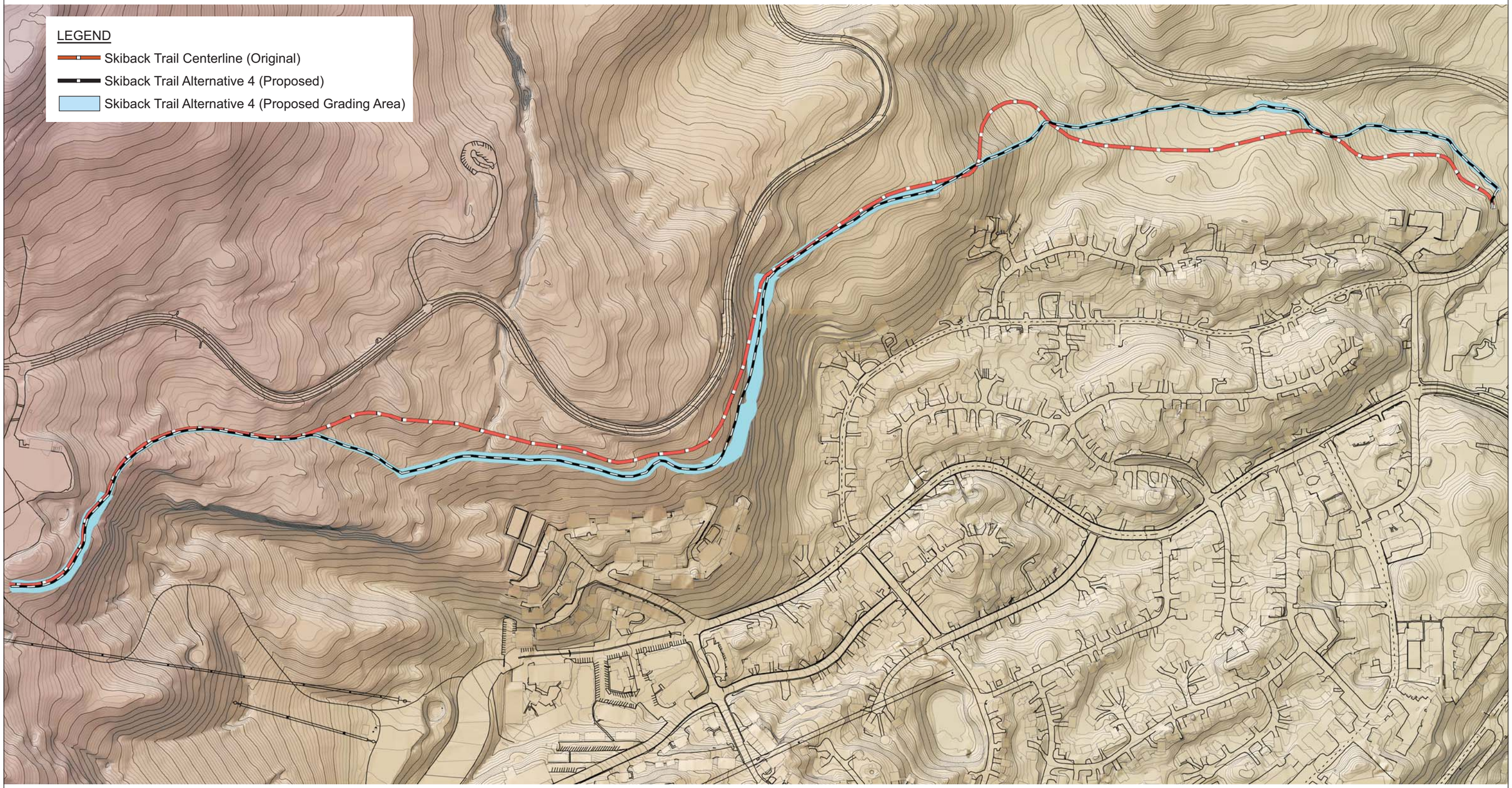
Summary of Components of Proposed Action and Alternatives

Trail Characteristics	Proposed Action	Alternative 1 Original Alignment Proposal	Alternative 2 Transit Emphasis	Alternative 3 No Action
Skier Trail Capacity	900 – 1,200	900 – 1,200	N/A	N/A
Ski Trail Length	7,800 linear feet	7,700 linear feet	N/A	N/A
Distance to Property Boundary	200 feet	280 feet	N/A	N/A
Number of Snow Guns	10	10	N/A	N/A
Minimum Distance Snow Gun to Residences	155 feet	205 feet	N/A	N/A
Number of Grooming Trips Per Day	1	1	N/A	N/A
Grooming Time	30 minutes	30 minutes	N/A	N/A
Disturbed Area	6.16 acres	8.3 acres	N/A	N/A
Cubic Yards of Cut Slope	2,091[a]	23,000	N/A	N/A
Cubic Yards of Fill Slope	1,746[a]	2,000	N/A	N/A
Retaining Walls	5 walls totaling 18.75 linear feet	6 walls totaling 17.5 linear feet	N/A	N/A
Temporary Road Construction	1,957 feet	1,932 feet	N/A	N/A
Average Trail Gradient	7.4 %	8.7 %	N/A	N/A
Average Trail Skier Class	Upper Beginner/ Lower Intermediate	Upper Beginner/ Lower Intermediate	N/A	N/A
Pedestrian Skier Overpass	Yes	Yes	N/A	N/A
Overlap Mountain Bike Trails	2,800 linear feet	4,280 linear feet	N/A	N/A

[a] *It should be noted that under the Proposed Action, all of the cut and fill would be maintained on-site and therefore would not require any import or export of soil.*

Source: PCR Services Corporation, July 2007.

approximately Station 45, where it turns north to parallel the Proposed Action alignment for approximately 1,100 feet. At approximately Station 27, the Original Alignment Proposal turns northward and loops around to cross the Proposed Action alignment at approximately Station 20 and continues in a southeast direction, approximately 400 feet south of the Proposed Action alignment. The two trail alignments intersect at approximately 1,800 feet from the trail terminus, but the Original Alignment Proposal shifts to the south across more rugged terrain, where the two alignments parallel to the trails' terminus.



PCR

N

0 400 800 Feet

Source: Triad/Holmes Associates, June 28, 2004.

Figure 4
Alternative 1-Original Trail Alignment Proposal

This Alternative would require the export of 23,000 cubic yards of cut and the import of 2,000 cubic yards of rock stack. Under this Alternative, construction of the trail would require six retaining walls as opposed to five in the Proposed Action and the same four temporary access corridors maintaining the same alignments as under the Proposed Action. All other construction and maintenance activities would be the same under this Alternative as under the Proposed Action (i.e., snowmaking would occur for approximately 60 hours throughout the ski season and the trail would generally be groomed once a day). However, as described above, this Alternative is more disruptive to the forest environment since the sections that are changed under the Proposed Action require less fill and utilize the existing terrain to maintain a natural flow preserving more of the existing trees and resulting in fewer impacts to the existing mountain bike trails.

b. Alternative 2 – Transit Emphasis Alternative

Under Alternative 2, the Ski Back Trail would not be constructed. Rather, there would be an increased emphasis on transit provisions focused on returning skiers from the Main Lodge, Chair 2/10, and Chair 4/20 to The Village, and other destinations in Town.

The increased Transit Emphasis Alternative was designed to be roughly equivalent to the projected level of skiers that could be carried on the Ski Back Trail under the Proposed Action and originating from the Main Lodge and associated parking areas. Therefore, this Alternative would require the addition of four buses during the peak hour (3:30 P.M. to 5:00 P.M.) running only from the Main Lodge to The Village. The buses would have a total capacity of 240 skiers, which represents approximately 10 percent of the total skiers coming down via private auto from the Main Lodge and associated parking areas in the peak afternoon hour. This Alternative does not aid in alleviating the existing overcrowding of the trails at the Canyon Portal, the existing or future need for increased down-slope capacity from the Canyon Gondola, Canyon Bus Transit system, nor does it meet the Town's "feet first initiative" and reduction in greenhouse gas (GHG) emissions.

c. Alternative 3 – No Action Alternative

As required by NEPA, a No Action Alternative has been included in this analysis for review alongside the action alternatives. The No Action alternative reflects a continuation of existing management practices without changes, additions, or upgrades. Selection of the No Action Alternative would result in continued operation of the existing public transit system, Village Gondola, parking facilities, and mountain operations with no changes. The Ski Back Trail, trail improvements, snowmaking, or transit improvements would not occur under the No Action alternative. The No Action alternative provides a baseline for comparing the effects of the Proposed Action and Alternatives 1 and 2.

d. Alternatives Considered but Eliminated from Detailed Consideration

Federal agencies are required by NEPA to rigorously explore and objectively evaluate all reasonable alternatives to the Proposed Action and to briefly discuss the reasons for eliminating any alternatives that were not analyzed in detail. The 234 public comments (letters and emails) received during the three meetings that were conducted on November 10, 2003, September 9, 2004, and December 11, 2004, in response to the Proposed Action provided suggestions for alternative methods for achieving the project's purpose and need. These comments are available for review at the Mammoth Ranger Station Office. Some of the alternatives were considered outside the scope of the proposal, duplicative of the alternatives considered in detail, or determined to be components that would cause unnecessary environmental harm. Therefore, a number of alternatives were considered, but dismissed from detailed consideration for reasons summarized below.

(1) North Side of SR-203 (Minaret Road)

This alternative would establish an additional mountain bike trail between The Village and MMSA garage facilities, located to the north of Minaret Road.

Construction of an additional mountain bike trail would partially respond to the issue of recreational opportunities through enhancement of existing trails. However, the creation of an additional mountain bike trail would not address the winter down-slope capacity issue nor would it address the dangers of crossing over the highway. In addition, it should be noted that while the existing mountain bike trails would be modified, they would be retained under the Proposed Action, and Alternatives 1 and 2.

(2) Surface Lift

This alternative would replace the trenched portion of the Original Alignment Proposal Alternative with a surface lift. This section no longer exists in the new proposed alignment. Nevertheless, a surface lift in the new alternative does not address any of the remaining issues and would require the addition of an operator.

(3) Ski Back Trail North of Minaret Road

This alternative would replace both the side hill and the trenched portion of the Proposed Action ski back alignment by crossing Minaret Road approximately 2,300 feet down the trail and again above the Scenic Loop Road intersection with Minaret Road. The upper road crossing would require a skier bridge and lift and the lower road crossing could be accomplished with construction of a skier bridge. This alternative would move the alignment further from the residences and onto flatter level terrain.

This alternative would address cut and fill, visual, and potential noise issues associated with the Proposed Action. However, the addition of a ski lift and bridge crossing Minaret Road would result in similar issues and concerns as the Proposed Action, while adding substantial infrastructure on Forest Service lands. The issues addressed by moving a portion of the ski back trail north of Minaret Road, are addressed in mitigations and design features for both the Original Project alignment and the Proposed Project alignment. In addition, this trail alignment would not be completely within the permit boundary of the ski area.

e. Comparison of Alternatives

Table 2 on page 25 provides a comparison of affects of the Proposed Action and the three alternatives after application of required mitigation measures. The table provides summaries of the individual environmental issue area affect and mitigation analyses in Section 3, some of which are also supported by technical reports. The Proposed Action would result in impacts in the following issue areas:

Recreation: Construction of the Ski Back Trail would affect the Uptown and Downtown cross-country mountain bike trails. Therefore, a mitigation measure would require the reconstruction of all impacted portions of the mountain bike trails. In addition, during the summer months, barriers will be required to limit bicyclers utilizing the Ski Back Trail as opposed to the mountain bike trails.

Noise: Potential short-term affects could occur to the residential community located south of the proposed Ski Back Trail, during construction activities. Implementation of the mitigation measures requiring muffled construction equipment and locating and/or staging mechanical equipment away from the sensitive receptors would not adversely affect the residential uses. Snow-making activities could also affect the nearby sensitive receptors. However, with implementation of the mitigation measures requiring adequate screening and compliance with the Town's Noise Ordinance, there would be no adverse noise affects.

Biological Resources: A review of the floral and faunal compendia indicates that there are no plant species and/or sensitive wildlife species that would be adversely affected by construction or operation of the Proposed Action. Regardless, a mitigation measure is included to ensure that construction activities do not occur within the nesting period for sensitive wildlife species, ensuring that biological resources would not be adversely affected.

Cultural Resources: While no historical, archaeological, or paleontological resources are anticipated to occur within the proposed Ski Back Trail area, there is the possibility that grading and excavation activities could uncover previously undiscovered cultural resources. Implementation of the recommended mitigation measures would require monitoring during grading activities to ensure no adverse affects to cultural resources, including human remains, would occur.

Table 2

Summary and Comparison of Environmental Consequences

Proposed Action	Alternative 1 Original Alignment Proposal	Alternative 2 Transit Emphasis Alternative	Alternative 3 No Action Alternative
Recreation			
Construction of the Ski Back Trail would require closure and re-routing of the Uptown and Downtown cross-country mountain bike trails. Therefore, a mitigation measure would require reconstruction of the mountain bike trails to ensure there would be no adverse affects to summer recreational facilities. Operation of the Ski Back Trail would not impact the mountain bike trails during the winter. However, during the summer, mountain bikers may utilize the Ski Back Trail as opposed to the bike trail. Therefore, a mitigation measure is included to provide barriers along the trail to limit the use of the trail by bicyclers.	Construction of the Ski Back Trail would require closure and re-routing of the Uptown and Downtown cross-country mountain bike trails. Therefore, a mitigation measure would require reconstruction of the mountain bike trails to ensure that there would be no adverse affects to summer recreational facilities. Operation of the Ski Back Trail would not impact the mountain bike trails during the winter. However, during the summer, mountain bicyclers may utilize the Ski Back Trail as opposed to the bike trail. Therefore, a mitigation measure is included to provide barriers along the trail to limit the use of the trail by bicyclers.	Under Alternative 2, the Ski Back Trail would not be constructed. Instead, there would be an increased emphasis on transit provisions focused on returning skiers to The Village. Therefore, there would not be any construction activities or associated construction affects to the mountain bike trails for the Transit Emphasis Alternative. Alternative 2 would not develop the Ski Back Trail. As such, it would not alleviate the up-load and down-load capacity imbalance at the Canyon Lodge portal, the excess demand for the down-load of the Village Gondola, or provide down-slope capacity for The Village. Therefore, Alternative 2 would result in adverse operational affects to winter recreational facilities. Alternative 2 would not develop the Ski Back Trail and therefore, would not require development of barriers prohibiting mountain bike riders traversing the Ski Back Trail. Therefore, there would be no adverse affects to summer recreational facilities with implementation of	Under Alternative 3, the Ski Back Trail would not be constructed. Therefore, there would not be any construction activities or associated construction affects for the No Action Alternative. Alternative 3 would not develop the Ski Back Trail. As such, it would not alleviate the up-load and down-load capacity imbalance at the Canyon Lodge portal, the excess demand for the down-load of the Village Gondola, or provide down-slope capacity for The Village. Therefore, Alternative 3 would result in adverse operational affects to winter recreational facilities. Alternative 3 would not develop the Ski Back Trail and therefore, would not require development of barriers prohibiting mountain bike riders traversing the Ski Back Trail. Therefore, there would be no adverse affects to summer recreational facilities with implementation of Alternative 3.

Table 2 (Continued)

Summary and Comparison of Environmental Consequences

Proposed Action	Alternative 1 Original Alignment Proposal	Alternative 2 Transit Emphasis Alternative	Alternative 3 No Action Alternative
		Alternative 2.	
Transportation			
Construction traffic associated with the Proposed Action would consist of the construction workers' commute and the single transport of construction equipment and materials on-site at the beginning of construction and off-site at the conclusion of construction. Construction-related affects would be short-term and traffic generated by the construction crew would be small compared to the existing traffic volumes on Minaret Road and other affected streets. Therefore, there would be no adverse construction affects and no mitigation measures would be required.	Construction traffic associated with the Alternative 1 would consist of the construction workers' commute and the single transport of construction equipment and materials on-site at the beginning of construction and off-site at the conclusion of construction. Construction-related affects would be short-term and traffic generated by the construction crew would be small compared to the existing traffic volumes on Minaret Road and other affected streets. Therefore, there would be no adverse construction affects and no mitigation measures would be required.	The Transit Emphasis Alternative does not include the construction of the Ski Back Trail. Instead an increased emphasis would be on transit provisions focused on returning skiers from the Main Lodge, Chair 2/10, and Chair 4/20 to The Village, and other destinations in Town. As the Ski Back Trail would not be developed, no construction-related affects would occur and no mitigation measures are required.	The No Action Alternative would reflect a continuation of existing conditions without changes, additions, or upgrades. Since there would be no development under the No Action Alternative, there would be no construction-related traffic affects and no mitigation measures are required.
A conservative projected daily demand would be 244 skiers during existing typical conditions and 349 skiers during existing peak conditions and 359 skiers during typical conditions and 512 during peak conditions in the cumulative condition would utilize the Ski Back Trail. This has the potential to eliminate approximately 26 to 37 vehicle trips under the typical and peak day conditions, which could represent an overall potential reduction in southbound	A conservative projected daily demand would be 244 skiers during existing typical conditions and 349 skiers during existing peak conditions and 359 skiers during typical conditions and 512 during peak conditions in the cumulative condition would utilize the Ski Back Trail. This has the potential to eliminate approximately 26 to 37 vehicle trips under the typical and peak day conditions, which could	Alternative 2 would require four additional buses in the peak hour running only from Main Lodge to The Village. If all transit increases come from private vehicles, a reduction of approximately 96 vehicle trips in the peak hour would occur, equivalent to approximately 10 percent of the total vehicular traffic in the peak hour. However, this level of traffic reduction would not likely occur as the demand for additional	Under the No Action Alternative, the proposed Ski Back Trail would not be constructed. As stated above, the roundabout at Minaret/Forest Trail intersection is expected to be constructed in 2008, and congestion at the intersection would be improved. Traffic conditions along SR-203 are only influenced and potentially improved by the increased attractiveness of Canyon Lodge and Eagle Base relative to Main Lodge.

Table 2 (Continued)

Summary and Comparison of Environmental Consequences

Proposed Action	Alternative 1 Original Alignment Proposal	Alternative 2 Transit Emphasis Alternative	Alternative 3 No Action Alternative
SR-203 (downhill) afternoon peak-hour traffic of 2.6 to 3.7 percent for typical and peak conditions. However it is unlikely that this potential trip reduction would be achieved due to the fact that there is existing latent demand for the transit and auto trip. On the other hand, the Ski Back Trail does have the potential to alleviate existing peak demand on the Village Gondola and as future demand increases through planned developed in The Village, the Ski Back Trail has enough capacity to continue to allow an alternative to waiting in line. As there would be no adverse operational affects in regards to the Proposed Action, no mitigation measures are required.	represent an overall potential reduction in southbound SR-203 (downhill) afternoon peak-hour traffic of 2.6 to 3.7 percent for typical and peak conditions. However it is unlikely that this potential trip reduction would be achieved due to the fact that there is existing latent demand for the transit and auto trip. On the other hand, the Ski Back Trail does have the potential to alleviate existing peak demand on the Village Gondola and as future demand increases through planned developed in The Village, the Ski Back Trail has enough capacity to continue to allow an alternative to waiting in line. As there would be no adverse operational affects in regards to the Alternative 1, no mitigation measures are required.	transit would primarily come from latent transit demand of other transit riders riding before or after the peak hour. In order to accomplish the objectives of this alternative, a reduction of 250 parking spaces would be recommended due to the fact that the potentially available 96 vehicle trips and the four additional buses would be filled with latent peak transit demand. Furthermore, the transit emphasis option would not provide relief for the existing and future demand for the Village Gondola. There would be no adverse affects and no mitigation measures are required.	Traffic conditions for a typical winter Saturday are projected to operate consistent with adopted Town standards for LOS. However, peak conditions would exceed Town thresholds, resulting in unstable traffic congested conditions. Cumulative effects of the No Project Alternative are similar to the effects described for foreseeable actions. There would be no adverse operational affects and no mitigation measures would be required.
Air Quality			
Construction of the Proposed Action is expected to take approximately six months to complete. On-site construction emissions are associated with a variety of activities including earthwork activities such as grading and minor excavation and exhaust emissions from diesel and gasoline-powered construction equipment such as bulldozers and excavators. Off-site emissions would mainly result from	Construction of the Alternative 1 is expected to take approximately six months to complete. On-site construction emissions are associated with a variety of activities including earthwork activities such as grading and minor excavation and exhaust emissions from diesel and gasoline-powered construction equipment such as bulldozers and excavators. Off-	Under Alternative 2, the Ski Back Trail would not be constructed. Instead, there would be an increased emphasis on transit provisions focused on returning skiers to The Village. Therefore, there would not be any construction activities or associated construction affects for the Transit Emphasis Alternative.	Under Alternative 3, the Ski Back Trail would not be constructed. Therefore, there would not be any construction activities or associated construction affects for the No Action Alternative.

Table 2 (Continued)

Summary and Comparison of Environmental Consequences

Proposed Action	Alternative 1 Original Alignment Proposal	Alternative 2 Transit Emphasis Alternative	Alternative 3 No Action Alternative
travel by workers commuting to and from the site. Construction emissions are not anticipated to exceed the Prevention of Significant Deterioration (PSD) threshold of 250 tons per year (tpy) for NO_X, VOCs, $PM_{2.5}$, CO, and SO_X and 100 tpy for PM_{10}. With respect to potential Toxic Air Contaminants (TAC) and odor impacts, the Proposed Action is not expected to generate substantial TAC or odorous emissions during construction. Since construction affects are temporary in nature, there would be no adverse construction affects. GHG emissions were not quantified for construction activities.	site emissions would mainly result from travel by workers commuting to and from the site. Construction emissions are not anticipated to exceed the PSD threshold of 250 tpy for NO_X, VOCs, $PM_{2.5}$, CO, and SO_X and 100 tpy for PM_{10}. With respect to potential TAC and odor impacts, Alternative 1 is not expected to generate substantial TAC or odorous emissions during construction. Since construction impacts are temporary in nature, there would be no adverse affects. GHG emissions were not quantified for construction activities.		
Due to the nature of the Proposed Action, operational emissions result primarily from maintenance of the Ski Back Trail during the winter season. Maintenance activities that would contribute to regional emissions include snow grooming activities. It is predicted that snow grooming equipment would run for approximately two hours per day during the 152 day winter season. Emission reductions resulting from the Proposed Action are primarily from on-road vehicle trips. Vehicular trips are expected to be reduced by a minimum of 26 round-trips during peak winter days. Therefore, implementation of the	Due to the nature of Alternative 1, operational emissions result primarily from maintenance of the Ski Back Trail during the winter season. Maintenance activities that would contribute to regional emissions include snow grooming activities. It is predicted that snow grooming equipment would run for approximately two hours per day during the 152 day winter season. Emission reductions resulting from Alternative 1 are primarily from on-road vehicle trips. Vehicular trips are expected to be reduced by a minimum of 26 round-trips during peak winter	Alternative 2 would result in an increase in four peak hour bus trips. Alternative 2 would not exceed the PSD threshold of 250 tpy for NO_X, VOCs, $PM_{2.5}$, CO, and SO_X and 100 tpy for PM_{10}. Operation of Alternative 2 does include diesel transit bus additions, but would result in limited emissions resulting from the four daily trips occurring only on peak winter days. Alternative 2 does not include installation of diesel-powered generators or any other stationary sources. Therefore, there would be no adverse affects resulting from emissions of TACs or odors.	Alternative 3 is not expected to generate any additional trips or result in a reduction of trips compared to existing conditions. The total contribution to regional emissions under Alternative 3 would be minimal since no land uses would be added. Localized air quality impacts are determined mainly by the peak hour intersection traffic volumes. Alternative 3 is not expected to increase localized CO or PM_{10} concentrations over existing conditions and there would be no adverse affect.

Table 2 (Continued)

Summary and Comparison of Environmental Consequences

Proposed Action	Alternative 1 Original Alignment Proposal	Alternative 2 Transit Emphasis Alternative	Alternative 3 No Action Alternative
Proposed Action would reduce ozone precursor, sulfur dioxide, CO, PM_{10}, and $PM_{2.5}$ emissions; TACs; and GHG emissions. The limited trail grooming required would not result in adverse odor impacts. As such, the Proposed Action would not result in adverse operational affects to air quality and no mitigation measures are required.	days. Therefore, implementation of Alternative 1 would reduce ozone precursor, sulfur dioxide, CO, PM_{10}, and $PM_{2.5}$ emissions; TACs; and GHG emissions. The limited trail grooming required would not result in adverse odor impacts. As such, Alternative 1 would not result in adverse operational affects to air quality and no mitigation measures are required.	The transit bus additions during operation of Alternative 2 would utilize 20 percent bio-diesel fuel, and as a result, Alternative 2 would support the State's goal of GHG reduction. Therefore, there would be no adverse operational affect to air quality and no mitigation measures are required.	With respect to potential TAC impacts, Alternative 3 is not expected to generate any additional air toxics emissions, and there would be no adverse affect. In summary, impacts under Alternative 3 would not increase operational emissions as compared to existing conditions; therefore there would be no adverse affects to air quality.
Noise			
There would be a relatively high single-event noise exposure potential at a maximum level of 87 dBA Lmax due to worker commute and transporting the construction equipment to the site. However, the projected construction traffic would be small when compared to the existing traffic volumes on SR-203 and other affected streets and it's associated longer-term (e.g., hourly or daily) noise level changes would not be measurable. Therefore, there would be no adverse short-term construction related worker commutes and equipment transport noise affects and no mitigation measures would be required. The closest residences may be subject to short-term noise reaching 74 dBA Lmax,	There would be a relatively high single-event noise exposure potential at a maximum level of 87 dBA Lmax due to worker commute and transporting the construction equipment to the site. However, the projected construction traffic would be small when compared to the existing traffic volumes on SR-203 and other affected streets and it's associated longer-term (e.g., hourly or daily) noise level changes would not be measurable. Therefore, there would be no adverse short-term construction related worker commutes and equipment transport noise affects and no mitigation measures would be required.	The Transit Emphasis Alternative does not include the construction of the Ski Back Trail. Rather, an increased emphasis would be on transit provisions focused on returning skiers from the Main Lodge, Chair 2/10, and Chair 4/20 to The Village, and other destinations in Town. As the Ski Back Trail would not be constructed under this alternative, no construction noise affects would occur.	The No Action Alternative would reflect a continuation of existing conditions without changes, additions, or upgrades. Since there would be no development under this Alternative, there would be no adverse construction-related noise affects.

Table 2 (Continued)

Summary and Comparison of Environmental Consequences

Proposed Action	Alternative 1 Original Alignment Proposal	Alternative 2 Transit Emphasis Alternative	Alternative 3 No Action Alternative
generated by on-site construction activities. This range of maximum construction noise would comply with the Town's Noise Ordinance requirements. In addition, implementation of the recommended mitigation measures would further ensure that there would be no adverse potential construction noise affects.	The closest residences may be subject to short-term noise reaching 74 dBA Lmax, generated by on-site construction activities. This range of maximum construction noise would comply with the Town's Noise Ordinance requirements. In addition, implementation of the recommended mitigation measures would further ensure that there would be no adverse potential construction noise affects.		
Existing single-family residential units located approximately 200 feet south of the proposed Ski Back Trail alignment are currently exposed to traffic noise levels from SR-203 ranging from 62.3 dBA to 66.5 dBA, during a typical winter weekday and Saturday, respectively. Implementation of the Proposed Action would not equate to trip reduction due to the fact that there is existing latent demand for the transit and auto trip. Thus, the Proposed Action would have no measurable change on interior or exterior noise levels due to weekend traffic noise. The homes 200 feet from the snow-making activities would experience exterior noise levels up to 58 dBA Lmax outside the buildings. This range of noise levels is comparable with the measured ambient noise levels. Regardless,	Existing single-family residential are currently exposed to traffic noise levels from SR-203 ranging from 62.3 dBA to 66.5 dBA, during a typical winter weekday and Saturday, respectively. Implementation of Alternative 1 would not equate to trip reduction due to the fact that there is existing latent demand for the transit and auto trip. Thus, Alternative 1would have no measurable change on interior or exterior noise levels due to weekend traffic noise. The homes 200 feet from the snow-making activities would experience exterior noise levels up to 58 dBA Lmax outside the buildings. This range of noise levels is comparable with the measured ambient noise levels. Regardless, mitigation	The daily reduction of 240 skiers using private vehicles among the 7,000 total skiers and snowboarders on typical winter Saturdays or 14,000 total skiers and snowboarders represent less than four percent and two percent, respectively, of the total skiers and snowboarders. The resulting change in traffic noise would not be measurable and there would be no adverse traffic noise affects. As the Transit Emphasis Alternative does not include the construction of the Ski Back Trail, impacts from snow-making, snow-grooming, or skiers passing by, would not occur to the single-family residential uses located 200 feet south of the Ski Back Trail (sensitive receptors).	The No Action Alternative would result in the continued operation of the existing public transit system, Village Gondola, parking facilities, and mountain operations with no changes. Consequently, traffic noise conditions would remain the same, and thus, no traffic noise affects would occur. In addition, this Alternative would not involve snow-making and snow-grooming activities and no skiers would pass by within 200 feet of single-family residential units. Therefore, there would be no operational noise affects under this Alternative.

Table 2 (Continued)

Summary and Comparison of Environmental Consequences

Proposed Action	Alternative 1 Original Alignment Proposal	Alternative 2 Transit Emphasis Alternative	Alternative 3 No Action Alternative
mitigation measures are included to ensure that there would be no adverse interior and exterior noise impacts from snow making equipment.	measures are included to ensure that there would be no adverse interior and exterior noise affects from snow making equipment.		
The snow-grooming exterior noise level would be reduced to below 53 dBA Lmax and interior noise level would be 26 dBA Lmax at the nearest residences along the Proposed Action ski trail alignment. Therefore, there would be no adverse interior or exterior noise affects to the existing residential uses adjacent to the Proposed Action alignment from snow-grooming activities and no further mitigation measures are required.	The snow-grooming exterior noise level would be reduced to below 53 dBA Lmax and interior noise level would be 26 dBA Lmax at the nearest residences along Original Proposal Alignment. Therefore, there would be no adverse interior or exterior noise affects to the existing residential uses adjacent to Alternative 1 alignment from snow-grooming activities and no further mitigation measures are required.		
At a distance of 200 feet, the exterior noise level from male shouting from 16 people would be 64 dBA Lmax and 37 dBA Lmax for interior noise levels. Therefore, no homes along the Proposed Action ski trail alignment would be exposed to noise from skiers passing by that would exceed the Town's daytime exterior noise standards. There would be no adverse affects and no mitigation measures are required.	At a distance of 200 feet, the exterior noise level from male shouting from 16 people would be 64 dBA Lmax and 37 dBA Lmax for interior noise levels. Therefore, no homes along Alternative 1 ski trail alignment would be exposed to noise from skiers passing by that would exceed the Town's daytime exterior noise standards. There would be no adverse affects and no mitigation measures are required.		

Table 2 (Continued)

Summary and Comparison of Environmental Consequences

Proposed Action	Alternative 1 Original Alignment Proposal	Alternative 2 Transit Emphasis Alternative	Alternative 3 No Action Alternative
Biological Resources			
Development of the Proposed Action would require grading a total of approximately 6.16 acres of land. No sensitive plant species have been observed on the Ski Back Trail area and no new sensitive plants have been identified by the USDA Forest Service. A mitigation measure is included in order to ensure that sensitive wildlife species would not be adversely affected. In addition, the Ski Back Trail area does not provide an effective route for migratory species and is not included in the Critical Habitat boundaries. As such, based on the sensitivity of the plant species, there would be no adverse construction affects of the Proposed Action in regards to biological resources.	Alternative 2 would require grading a total of approximately 8.3 acres of land, including the export of 23,000 cubic yards of cut and the import of 2,000 cubic yards of rock stack. No sensitive plant species have been observed on the Original Alignment Proposal area and no new sensitive plants have been identified by the USDA Forest Service. A mitigation measure is included in order to ensure that sensitive wildlife species would not be adversely affected. In addition, the Ski Back Trail area does not provide an effective route for migratory species and is not included in the Critical Habitat boundaries. As such, based on the sensitivity of the plant species, there would be no adverse affects of Alternative 2 in regards to biological resources.	Under Alternative 2, the Ski Back Trail area would not be constructed. No grading or excavation activities that would affect plant species, sensitive wildlife species, wildlife movement, or critical habitat, located in the Ski Back Trail area would be impacted. As such, implementation of Alternative 2 would not result in adverse affects to biological resources in the area.	Under Alternative 3, the Ski Back Trail would not be constructed, other improvements to the area would not be implemented, and all existing conditions would remain unchanged. As such, implementation of Alternative 3 would not result in adverse affects to biological resources in the area.
All impacts in regards to plant species would occur during the construction phase of the Proposed Action. In addition, since the Ski Back Trail area does not contain sensitive wildlife movements, does not provide an effective route for migratory species, and does not contain critical habitat, the Proposed	All impacts in regards to plant species, sensitive wildlife species, wildlife movement, or critical habitat, would occur during the construction phase of Alternative 1. As such, implementation of Alternative 1 would not result in adverse affects to biological resources.	Alternative 2 would have an emphasis on transit provisions and would provide four additional buses along existing roadways that have already been developed. Implementation of Alternative 2 would not result in adverse affects to biological resources in the area.	Alternative 3 would result in the continued operation of the existing public transit system, Village Gondola, parking facilities, and mountain operations. As such, implementation of Alternative 3 would not result in adverse affects to biological resources in the area.

Table 2 (Continued)

Summary and Comparison of Environmental Consequences

Proposed Action	Alternative 1 Original Alignment Proposal	Alternative 2 Transit Emphasis Alternative	Alternative 3 No Action Alternative
Action would not result in adverse affects in these regards. As such, implementation of the Proposed Action would not result in adverse operational affects to biological resources.			
Cultural Resources			
It is unlikely that there are archaeological deposits within the subsurface conditions, as these likely predate the human occupation, occurring during the Jurassic and Cretaceous Periods. In addition, the Heritage Resources records review and field survey conducted for the proposed Ski Back Trail also indicated that no cultural resources have been identified within the vicinity. Regardless, since the proposed Ski Back Trail area has not been previously graded or excavated, there is the potential for previously undiscovered subsurface cultural deposits to occur in the project area. Therefore, mitigation measures requiring monitoring for all ground-disturbing construction activities would not result in adverse affects to historical, archaeological, or paleontological, resources, and human remains.	It is unlikely that there are archaeological deposits within the subsurface conditions, as these likely predate the human occupation, occurring during the Jurassic and Cretaceous Periods. In addition, the Heritage Resources records review and field survey conducted for the Original Alignment Proposal area also indicated that no cultural resources have been identified within the vicinity. Regardless, since the proposed Ski Back Trail area has not been previously graded or excavated, there is the potential for previously undiscovered subsurface cultural deposits to occur in the area. Therefore, mitigation measures requiring monitoring for all ground-disturbing construction activities would not result in adverse affects to historical, archaeological, or paleontological, resources, and human remains.	Under Alternative 2, the Ski Back Trail would not be constructed. Therefore, there would not be any grading or excavation activities that could impact historical, archaeological, or paleontological resources, or disturb human remains. Therefore, there would be no adverse affects to cultural resources with implementation of Alternative 2.	Under Alternative 3, the Ski Back Trail would not be constructed. Therefore, there would not be any grading or excavation activities that could impact historical, archaeological, or paleontological resources, or disturb human remains. Therefore, there would be no adverse affects to cultural resources with implementation of Alternative 3.

Table 2 (Continued)

Summary and Comparison of Environmental Consequences

Proposed Action	Alternative 1 Original Alignment Proposal	Alternative 2 Transit Emphasis Alternative	Alternative 3 No Action Alternative
All impacts to historical, archaeological, and paleontological resources and human remains would occur during construction of the Proposed Action. As such, there would be no adverse affects to cultural resources with implementation of the Proposed Action.	All impacts to historical, archaeological, and paleontological resources and human remains would occur during construction of Alternative 1. As such, there would be no adverse affects to cultural resources with implementation of the Alternative 1.	Alternative 2 would provide four additional buses along existing roadways that have already been developed. As such, there would be no adverse affects to cultural resources with implementation of the Alternative 2.	Alternative 3 would not involve any actions that could affect historical, archaeological, or paleontological resources, including human remains. Therefore, there would be no adverse affects to cultural resources with implementation of Alternative 3.
Aesthetics			
Construction of the Ski Back Trail would be short-term, occurring for approximately six months. In addition, most of the construction activity would occur out of the line of site for travelers along SR-203 and the residential uses to the south, due to intervening topography and vegetation. As such, since the construction activities would be short-term with limited viewsheds of the construction activities, there would be no adverse affects in this regard. No mitigation measures would be required.	Construction of the Original Alignment Proposal would be short-term, occurring for approximately six months. In addition, most of the construction activity would occur out of the line of site for travelers along SR-203 and the residential uses to the south, due to intervening topography and vegetation. As such, since the construction activities would be short-term with limited viewsheds of the construction activities, there would be no adverse affects in this regard. No mitigation measures would be required.	Under Alternative 2, the Ski Back Trail would not be constructed. Instead, there would be an increased emphasis on transit provisions focused on returning skiers to The Village. Therefore, there would not be any construction activities or associated construction impacts for the Transit Alternative. There would be no adverse construction affects for Alternative 2.	Under Alternative 3, the Ski Back Trail would not be constructed. Therefore, there would not be any adverse construction activities or associated construction affects for the No Action Alternative.
The analysis identified the potentially affected area as having a Scenic Class that reflects the general goals of the INFLRMP, Partial Retention, and even perhaps Retention, so that the existing visual character would not change as a	The analysis identified the Alternative 1 area as having a Scenic Class that reflects the general goals of the INFLRMP, Partial Retention, and even perhaps Retention, so that the existing visual character would not	Alternative 2 involves providing four additional bus trips originating from the Main Lodge and associated parking areas to The Village during the peak hour. As such, the increase in bus trips would occur along SR-	Under Alternative 3, the Ski Back Trail would not be constructed. Therefore, there would be no adverse affects to the visual character, landscape character, or scenic integrity under the No Action

Table 2 (Continued)

Summary and Comparison of Environmental Consequences

Proposed Action	Alternative 1 Original Alignment Proposal	Alternative 2 Transit Emphasis Alternative	Alternative 3 No Action Alternative
result of the Proposed Action. Therefore, the Proposed Action would not result in an adverse affects to regional visual resources. The site specific visual simulations further support this conclusion. Project design features such as natural rock walls and minimal tree removal would minimize any potential impact to the existing visual resources as a result of the Proposed Action. As such, the Proposed Action would not result in an adverse affect to the visual resources along the Ski Back Trail alignment. No mitigation measures would be required.	change as a result of the Proposed Action. Therefore, Alternative 1 would not result in an adverse affects to regional visual resources. The site specific visual simulations further support this conclusion. Project design features such as natural rock walls and minimal tree removal would minimize any potential impact to the existing visual resources as a result of Alternative 1. As such, Alternative 1 would not result in an adverse affect to the visual resources along the Ski Back Trail alignment.	203, which is a road that currently carries a large amount of traffic. An additional four bus trips along this roadway would not alter the visual character, landscape character, or scenic integrity of the area. As such, Alternative 2 would not result in adverse affects regarding visual resources.	Alternative.

Source: PCR Services Corporation 2007.

In all cases, the mitigation measures would ensure that there would be no adverse affects regarding noise, biological resources, cultural resources, and recreation. There would be no adverse affects to all other environmental issue areas, as concluded within this Draft EA and in the Initial Study. Based on these considerations and the comparison in Table 2, the USDA Forest Service has made the following conclusion:

USDA Forest Service (NEPA Lead Agency) - The No Action Alternative provides the least environmental impact and, as such, would be the Environmentally Preferable Alternative under the NEPA regulations at 40 CFR 1505.2(b). The USDA Forest Service has not identified an Environmentally Preferable Alternative among the action alternatives.

However, the No Action Alternative would not meet any of the Proposed Action's purpose and need. Specifically, the No Action Alternative would not construct a ski trail to increase skier return capacity to The Village portal of which, existing up-slope capacity exceeds down-slope capacity on the Village Gondola and the Canyon Lodge and Main Lodge Transit system. Therefore, the existing demand for the gondola returning to The Village would continue to result in a queue of 10 to 20 minutes and skiers would continue to wait up to an hour for buses between 3:30 P.M. and 4:30 P.M.[11] The No Action Alternative would also not accommodate future development, which would double the demand on the Village Gondola and Transit system. Finally, the No Action Alternative would not be consistent with the "feet first initiative" incorporated into the Town's *General Plan Update*, prioritizing walk, ski, bike first, transit second, and car last. Thus, the amount of skiers/snowboarders traveling from outside the area would continue to increase substandard traffic conditions within the Town contributing to global warming, which has become especially sensitive to this area due to the increased impacts experienced by mountain resorts. As such, the No Action Alternative would not help to alleviate the over capacity of the Village Gondola and the overburdened transit system, while simultaneously providing an alternative to the GHG emission producing automobile trips within the Town.

[11] *Town of Mammoth Lakes, North Village Specific Plan. 2000, projects currently in the CDD development list.*