- One 10-foot wide utility corridor for electricity along side the Snow Shed access road.

- One 10-foot wide utility corridor for other utilities such as phone, cable, etc along side the Snow Shed access road.

2.6 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED CONSIDERATION

2.6.1 Improved Forest System Road 391 Access Alternative

The Improved FSR 391 Access Alternative would allow improvements to FSR 391 for upgraded vehicular use for year round access to the private property.

FSR 391 is currently an OML 3 road open and maintained for low-speed single-lane driving in standard passenger cars, with gravel surfaces with Traffic Service Level "C" designation. Vehicular traffic is limited to snow-free months generally, from mid to late June through September. Summer traffic is primarily recreationists traveling to Alberta Lake, accessing the private property and NFS land beyond. FSR 391 is used during the winter for winter activities and is not plowed. FSR 391 goes through the WCSC SUP boundary. Besides Ski Area activities, FSR 391 is also used by cross-country skiers and snowshoers. FSR 391 is not drivable, nor are snowmobiles allowed on the road in winter conditions.

This alternative was eliminated from detailed study because it conflicts with established USFS winter recreational uses, and would materially interfere and be inconsistent with the ongoing operation of the Ski Area. In order to be used for year-round private property access, FSR 391 would need to be substantially reconstructed, including changes in both alignment and width. It would also need to be plowed almost daily. Not only would this eliminate the road as a route for cross-country skiers and snowshoers, the plowed road would also then cut across slopes that are currently established downhill ski runs as part of the Ski Area. In order to keep these established runs, snow bridges would need to be constructed above the road. Public safety would also be a great concern, as Village traffic would conflict with the downhill skiers at the Ski Area.

2.6.2 Snow Shed - West Village Access Alternative

The Snow Shed - West Village Access Alternative, similar to the Snow Shed - East Village Access Alternative, would provide for an alternative access to Highway 160. This alignment would have the same entrance to Highway 160 as the Snow Shed - East Village Access Alternative. However, the entrance to the private property would be at the same location as the Proposed Action. This route would require crossing several tributaries of Pass Creek and would require extensive disturbance–full bench road cuts, large fill quantities, and possibly bridges–in order to bridge the rough terrain between the starting and ending points of the road.

The adverse environmental impacts that would result from putting a wide road through steep terrain and wetlands, and the overall road length (estimated at 3,500 feet), eliminated this alternative from detailed analysis.

2.6.3 Private Property Land Trade Alternative

A scoping comment proposed that the USFS consider a land exchange alternative which would shift the private property away from the Ski Area to provide the Village with more buildable terrain and provide the Ski Area with more skiable terrain, and would create more compatibility between the Ski area and the private property. This alternative was eliminated from detailed study because: (1) it would not meet the purpose and need for the Federal action; and (2) the land owner has not made a land exchange proposal.

2.6.4 Realignment of Forest System Road 391

Currently, the Alberta Lake Easement provides a right of public access via FSR 391 across the private property to Alberta Lake and the public lands located east of the private property. In the application for transportation and utility systems and facilities easement, the Applicant proposed to modify the easement terms of FSR 391 within the private property for public access to public lands in the Alberta Lake area east of the private property. In regards to the proposed realignment of FSR 391, the USFS reviewed the application and determined that the Applicant was requesting to modify the terms of Alberta Lake public access easement across private property rather than providing a firm proposal to include in this Draft EIS analysis. Therefore, at this time the realignment of FSR 391 is not included in any alternative.

2.7 PROJECT DESIGN CRITERIA COMMON TO ALL ACTION ALTERNATIVES

The USFS uses many measures to reduce or prevent negative impacts to the environment in the planning and implementation of management activities. The application of these measures begins at the planning and design phase of a project. Appendix C contains project design criteria (PDC) that, when implemented in good faith, could avoid, minimize, or mitigate potential impacts to resources in the proposed project area. Where indicated in Appendix C, the PDC are required to make Alternatives 1-4 consistent with Forest Plan standards and guidelines for anticipated alternative effects on NFS lands. To ensure consideration in the impact assessments for each alternative, these PDC have been incorporated into each alternative described in this chapter.

The standards and guidelines in the Forest Plan are incorporated as design criteria common to all action alternatives by reference in Appendix C. Other mitigation measures may be incorporated during the implementation of the project.

2.8 MITIGATION MEASURES AND MONITORING REQUIREMENTS

2.8.1 Mitigation Measures

Mitigation practices and associated effectiveness for the proposed project (Federal action) are described below. Mitigation measures for the private property are largely controlled through a variety of permits (state, Federal and Mineral County) required prior to development.

1. All construction vehicle movement would be restricted to the access road and utility corridors, designated access, contractor-acquired access, or public roads. No widening or upgrading of existing roads would be undertaken in the area of construction and operation other than the selected alternative. This mitigation is needed to avoid increased sediment transfer and non-permitted widening of corridors. Effectiveness for this mitigative measure would be expected to almost always reduce impacts significantly and is commonly applied.

2. Traffic control measures such as signs, flagmen, and construction area markings would be required on the Highway 160 entrance to the selected alternative. In addition, highway intersection designs required by CDOT (including, but not limited to, signage, reduction of height of embankments, removal of tree, acceleration/deceleration lanes) would be required. This mitigation is needed to avoid public and worker safety conflicts. Effectiveness for this mitigative measure would be expected to almost always reduce impacts significantly and is commonly applied.

3. Access road and utility corridor design features would be placed to minimize disturbance to sensitive features such as riparian areas, wetlands, and water courses. Effectiveness for this mitigative measure would be expected to almost always reduce impacts significantly and is commonly applied.

4. Prior to construction, all supervisory construction personnel would be instructed on the protection of ecological resources, including mitigation measures required by Federal, state, and local agencies, and cultural resources, if encountered during subsurface excavations. To assist in this effort, the construction contractor would address (a) Federal and state laws regarding antiquities, plants and wildlife, including collection and removal; and (b) the importance of these resources and the purpose and necessity of protecting them. Effectiveness for this mitigative measure would be expected to almost always reduce impacts significantly and is commonly applied.

5. All construction and maintenance activities for the selected alternative would be conducted in a manner that would minimize disturbance to vegetation, soils, drainage channels, and intermittent or perennial streambanks in accordance with the NFS annual maintenance plan, and all state, county, and local requirements including CWA compliance. Construction activities would follow Best Management Practices (BMPs) for the construction of the entire length of the selected access road/utility corridors. BMPs would be utilized in the proposed project, where applicable to alternatives, to prevent stormwater discharge impacts per NPDES requirements. The following BMPs for NPDES compliance for sediment and erosion control are to be maintained and upgraded as needed to minimize the entrainment of soils from the proposed project area into the stormwater discharges. Effectiveness to these mitigative measures would be expected to almost always reduce impacts and be commonly applied.

    - Maintain vegetative cover to the extent possible in exposed soil areas during construction activities.

- Minimize exposure of bare soil areas to precipitation following any new construction or other ground disturbing activities for selected Alternative. This can be accomplished by slope protection, flow diversions, and/or soil stabilization (mulching, matting, geotextiles, check dams, slope breakers, culvert placement as designed).

- Slow down stormwater runoff flowing across the selected alternative by grading and berms, and provide drainage pathways for runoff.

- Remove sediment from stormwater before it is discharged through implementation of the above-described controls. Use straw wattles and silt fencing.

- Stabilize all slopes.

- Minimize run-on of precipitation to the facility by maintaining berms and surface flow diversions.

- In addition, all construction activities would include dust-control measures. All existing roads would be left in a condition equal to or better than their condition prior to the construction of access road/utility corridors, in accordance with USFS directives.

6. Mitigation (conservation) measures developed during the consultation process under Section 7 of the ESA as specified in the Biological Opinion of the USFWS would be implemented. The effectiveness for these mitigation measures is uncertain and will need to be monitored by the USFWS, CDOW, and the USFS.

7. The access road(s) and utility corridors will be designed to minimize overall impacts, including ground disturbance and visual impacts. Effectiveness for this mitigation measure would be expected to almost always result in a significant reduction in impacts, and has been found to be effective on the adjacent Tranquility Road construction.

8. Access road and utility corridor construction would be required to minimize potential conflicts with winter recreation activities. Effectiveness for this mitigative measure would be expected to almost always reduce impacts significantly and is commonly applied.

9. Road fill, road base material, and all organic material used for rehabilitation would be certified weed-free. Effectiveness for this mitigative measure would be expected to almost always reduce impacts significantly and is commonly applied.

10. Visual mitigation within the Scenic Integrity Objectives (SIO), including, but not limited to, revegetation of grasses, trees, and shrubs in appropriate locations to break up the rock walls and structures of parking areas. Effectiveness for this mitigative measure would be expected to almost always reduce impacts significantly and is commonly applied.

11. If selected, Tranquility Road use under Alternative 2 and Alternative 4 would require mitigation measures for safety including traffic separation of roads/parking lots, signs, traffic control, speed limits, delivery restrictions, and assurance of unimpeded public access across the private property. Effectiveness for these mitigative measures would be expected to almost always reduce impacts significantly and is commonly applied.

2.8.2 Monitoring Requirements

Monitoring requirements for the project include the following:

- Monitoring of traffic levels during peak traffic periods on Highway 160 and during peak ski days at the Ski Area (documented as highest skier days in March and December in 2003-2004 season) during permit administration.

- Monitoring of adherence to the Amended Scenic Easement and scenic mitigation measures. The USFS has a responsibility to insure that the selected access road alternative meets scenic requirements. Monitoring will occur during design and construction.

- Monitoring of winter/summer use of FSR 391 to determine how many vehicles are utilizing the road during permit administration.

- Monitoring of user conflicts on Tranquility Road. Since Tranquility Road will be utilized for parking for Ski Area operations, the USFS will monitor operations on Tranquility Road during peak ski days at the Ski Area (documented as highest skier days in March and December in 2003-2004 season) during permit administration.

- Monitoring the effectiveness of mitigation measures to protect lynx in conjunction with the USFWS and CDOW.

- Monitoring of mitigation measure success. The USFS would evaluate site specific mitigative measures during and after access road/utility corridor construction. The USFS also utilizes annual Monitoring and Evaluation Reports to evaluate if (USFS 2003k), "the management of the Forest is meeting goals, desired conditions, standards and guidelines, and prescriptive allocations (per 36 CFR 219.12)."

2.9 IDENTIFICATION OF THE PREFERRED ALTERNATIVE

The preferred alternative is the alternative which the agency believes would best fulfill its statutory mission, considering environmental, economic, technical, and other factors. The USFS has identified Alternative 4 as the preferred alternative at this time in order to assist the public in their review of this document. However, at this time, all alternatives have equal standing with the responsible official. Alternatives may be modified or a new alternative developed in response to public comments on the Draft EIS.

2.10 POTENTIAL DEVELOPMENT OF THE VILLAGE AT WOLF CREEK

As explained in Section 1.7, regardless of any decisions that result from this Draft EIS, the development of the private property as the Village may or may not occur. Currently, the Applicant has the legal right to develop the Village, and may decide to: (1) build the entire Village as proposed in the Mineral County PUD (Mineral County 2004); (2) build only a portion of the proposed Village; (3) not build the Village at all; or (4) do something completely different with the private property. It is reasonably foreseeable that development of the Applicant's private property will result in the future. As such, this Draft EIS includes a bounding assessment of the potential impacts that may result from a range of Village development scenarios. To assist the decisionmaker in fully understanding the impacts of the Federal actions separate from the potential cumulative impacts of the Village, the direct and indirect impacts of the Federal action alternatives are assessed in detail in Chapter 4. Likewise, the impacts associated with the potential development of the Village are analyzed separately from the Federal action impacts and are presented in Appendix A. To assist the decisionmaker in fully understanding the cumulative impacts of the Federal actions and the potential Village development, a bounding cumulative impacts section is presented in Section 4.19.

This section provides an overview of the private property development as the Village as described in the Mineral County PUD. As shown in Figure 2.10-1, the Village would consist of four distinct parcels within the 287.5-acre area to be built in phases per the Mineral County PUD. These parcels are referred to as Parcels A, B, C, and D (Figure 2.10-1), and are further broken down into Blocks, which include single family housing, multi-family housing, condominiums and commercial areas, as well as infrastructure and utility areas.

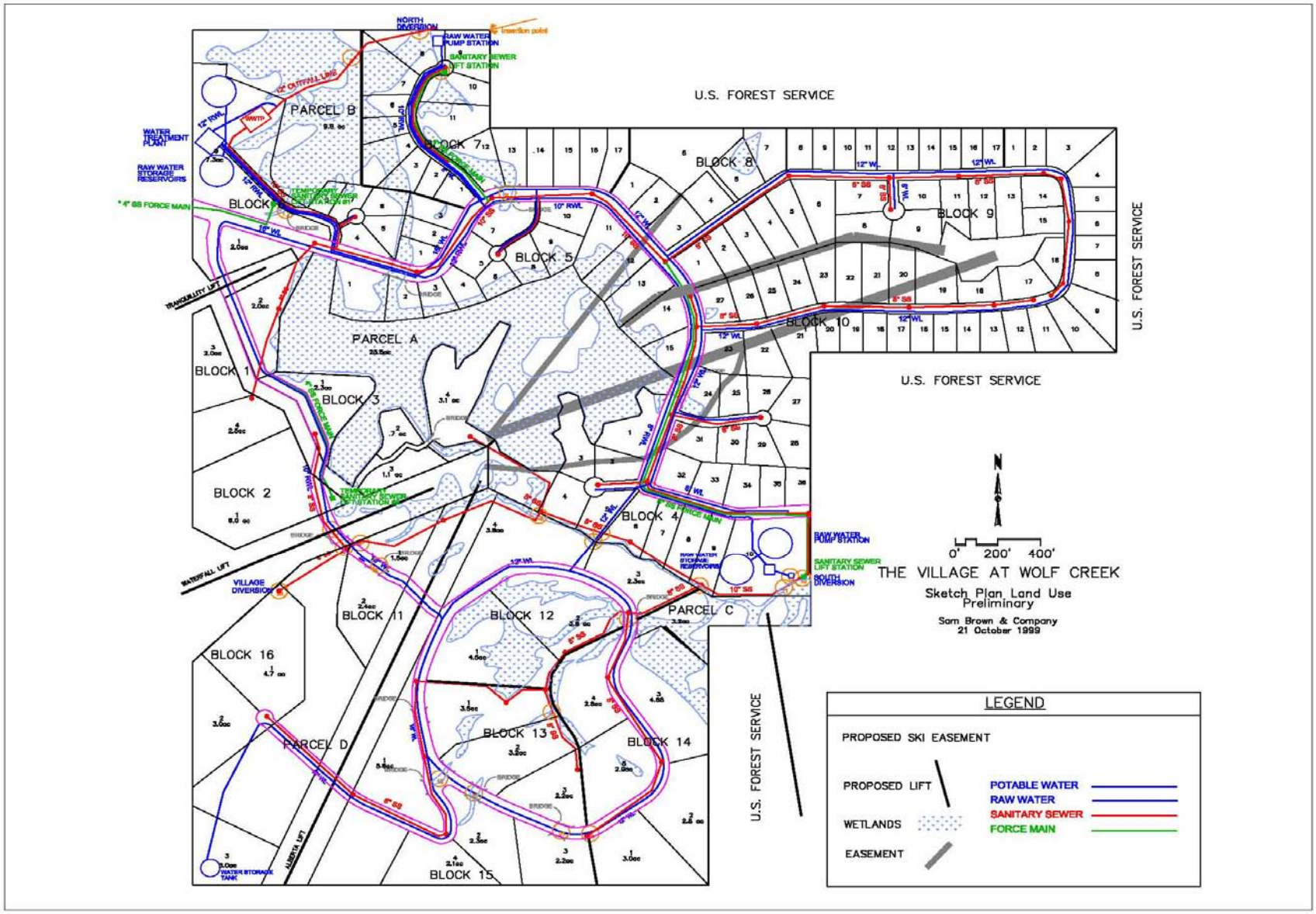

Figure 2.10-1. Sketch Plan for the Village at Wolf Creek.

The Village (construction and operation) includes:

- Buildings for residential and commercial development (2,172 units). Blasting and cut/fill of areas within the 287.5-acre private property on steep slopes (particularly in the southern portion of the 287.5-acre private property near the area known as "the Waterfall" in the Ski Area – Blocks 13, 14, and 15 in Parcel C and in Parcel B for water tanks and parking garages).

- Shuttle system to justify parking variances or to eliminate congestion. Railroad system for inter-Village transportation.

- Parking facilities for approximately 4,542 vehicles: 4,206 covered spaces and 336 open spaces.

- Roadway and pedestrian bridges across delineated wetlands and drainages within the 287.5 acre private property.

- Power Plant for heating and electricity generation requiring liquid natural gas (LNG) trucked to the 287.5-acre private property. The Phase 1 build-out of the Village would require one 2 megawatt (MW) generator. The preferred unit is a Caterpillar 3561B, non-road, carburetor emissions certified 2,000 natural gas fired generator. Fuel would be delivered by truck to the Village once every 2 weeks from a supplier in Cortez, Colorado, for Phase 1. The Phase 1 build-out is estimated to require 750 kilowatts (kW) of generation capacity. This leaves 1,250 kW capacity to spare, which can be sold, or the generator can operate at 40 percent capacity with less emissions and fuel consumption. The other 1,250 kW of capacity would then be used to provide power to a portion of Phase 2. This unit would also provide power for construction of the Village. At full build-out (estimated at 20 years), it is anticipated that ten 2-MW units (total of 20 MW) would be required to fully power the Village, if an outside power source is not available or desirable (Trembath 2004).

- Wastewater Treatment Facility with separate intake (raw water pump stations in two locations known as North Diversion and South Diversion), return flow areas within the 287.5-acre private property with associated piping and pumping infrastructure; raw water storage reservoirs and water tanks for storage. Based on observed wastewater flows and use in the Wolf Creek geographical region, 2,172 connections would result in an estimated wastewater flow at full build-out of 532,140 gallons per day (gpd). The requested wastewater treatment at the Village is for a discharge capacity of 600,000 gpd, with Phase 1 capacity of 50,000 gpd and Phase 2 capacity of 100,000 gpd.

- Sanitary sewer collection and handling lift stations in four locations, two temporary lift stations and two permanent stations (North Diversion and South Diversion areas).

- Secondary roads within the property would be constructed to Mineral County PUD standards that include a 24-foot minimum width. Approximately 3 miles of secondary roads would be constructed within the 287.5-acre private property.

- Solid waste management would be privately contracted during the initial phase of construction and would move to a solid waste transfer facility with compaction capabilities as the parcel becomes fully built out. Solid waste transfer facility sludge from the wastewater treatment plant would have to remain separated from the solid waste stream. Sludge would be handled by a private contractor.

- Water systems for potable water and fire protection would be constructed to serve the parcel, including potential water storage tanks.

- Stormwater collection and discharge system.

- Electrical and communications distribution system.

- Outdoor lighting.

- Guard Station at entrance to the Village.

- School site within the 287.5-acre private property. The Applicant has proposed a 3-acre lot area within the eastern portion of the private property to be conveyed to the Mineral County School District, at the time of final platting, for the sole purpose of a school and educational facilities. This would be triggered by the Village population generating a minimum of 40 students registered in the Creede Consolidated School District. Financial terms of constructing and operating the school would be negotiated between the Applicant and the Creede Consolidated School District (Honts 2000).

- Ski Lifts. As part of the MDP (WCSC 1998), there are eight ski lifts that have been identified for potential construction in conjunction with development of the Village.

- Snow Removal.

2.11 REASONABLY FORESEEABLE PROJECTS THAT MAY CONTRIBUTE TO CUMULATIVE EFFECTS

Several reasonably foreseeable projects are planned on USFS-managed Federal land in the vicinity of the Ski Area and Wolf Creek Pass.

- Development of the Applicant's private property into the Village.

- Ongoing Ski Area Operations.

- Potential expansion of the Ski Area consistent with the MDP (WCSC 1998). The MDP of 1998 states that the "Wolf Creek Ski Area has a general agreement with the Leavell-McCombs joint venture that upon breaking ground for housing/hotels, appropriate additional ski lifts would be constructed," and that development of the Village would require the preparation of "considerable additions or amendment to this plan" (WCSC 1998). The construction of the eight new lifts identified is partially dependent upon Village construction and availability of a major power supply (WCSC 1998).

- An adventure race associated with the Continental Divide Trail is planned for the Ski Area vicinity for late summer 2004. This race is permitted by the USFS and may or may not be permitted in the future.

- The Pass Creek Yurt is located approximately 2 miles east of Alberta Lake, reached via FSR 391. The Pass Creek Yurt is a USFS permitted user fee lodging facility for non-motorized winter recreation. An additional yurt has been proposed by the permit holder approximately 3.5 miles southeast of Alberta Lake. An EA and approval for future development of this proposed yurt has yet to be done. This new yurt would serve the same non-motorized recreation purpose as the Pass Creek Yurt.

- The Million Fire Timber Salvage Project is located in the South Fork area. The project will salvage approximately 550 acres of fire-killed timber.

- The Shaw Lake Vegetation Management Project is located approximately 18 miles southwest of South Fork. The Shaw Lake Vegetation Management Project is a 241-acre sanitation/salvage timber sale project to treat a spruce beetle infestation which has occurred over the past two years. Proposed treatments include salvage harvest of dead trees and the removal of currently infested trees that are still alive but dying. The removal of currently infested trees would be designed to reduce the spruce beetle population in the area and removal of dead trees would reduce the fuel loading. This proposal requires no new road construction; existing roads would be utilized and maintained.

- The Handkerchief Mesa Timber Project in the Fox Mountain Area consists of three separate issues: (1) Vegetative Treatments - implement silvicultural prescriptions on 5,094 acres; (2) Travel Management - decisions concerning road closures and reconstruction of roads; (3) Boundary Change - Amend the Forest Plan to change 1,423 acres to Management Area Prescription-Dispersed Recreation for consistency with the Fox Management Area.

- WCSC has identified reasonably foreseeable development of 8 new ski lifts as part of the MDP.

Other known projects not on USFS land:

- Saddlebrook, a planned residential community on private land, is located approximately 12 miles east of the Ski Area on the south side of Highway 160 in Moon Valley. This residential community is currently being marketed, but no development has taken place.

- Construction activities associated with CDOT improvements to Highway 160 continue on the east and west sides of Wolf Creek Pass, with construction on the east side of Wolf Creek Pass between approximately Mileposts 170 to 178. Blasting is presently occurring in the Fun Valley section of Highway 160 creating delays in both eastbound and westbound travel. These delays are approximately 30 minutes to 1 hour. Current construction activity on Highway 160 results in 4 traffic stoppages (delays). Highway 160 construction activity is expected through 2007. In addition, CDOT has numerous lynx corridor mitigation projects that are scheduled as part of Highway 160 construction.

- CDOT maintains an automated weather station at the top of Wolf Creek Pass (approximately 250 feet north of Highway 160). CDOT has proposed moving this weather station approximately 0.33 mile north of the Ski Area on the east side of the Highway 160 corridor. The USFS requires special use authorization and permitting for the proposed weather station siting.

- CDOT maintains a maintenance facility directly north of the Ski Area on the northern side of Highway 160.

- Historic hazardous material spills are monitored with well locations approximately 0.25 mile northeast of the Ski Area on the south side of Highway 160.

- The Ski Area assists CDOT with explosive work above the Snow Shed. In addition, the Ski Area uses explosives for avalanche control within the 1,581-acre Ski Area boundary.

2.12 COMPARISON OF ALTERNATIVES SUMMARY

To aid the reader in understanding the differences among the various alternatives, two summary comparison tables of the potential impacts associated with the alternatives are presented. Table 2.12-1 provides a comparison of environmental impacts, and Table 2.12-2 provides a comparison of Key issue impacts. Table 2.12-1 concentrates on those resources with the greatest potential to be impacted. The information in Table 2.12-1 is a summary of the environmental impacts based on the information presented in Chapter 4 of this EIS. Table 2.12-2 is based on the analysis of Key issues in Section 4.20 of this EIS.