DESCRIPTION OF THE PROPOSED ACTION:
ALTA MDP IMPROVEMENT PROJECTS

PROPOSED ACTION:

The proposed action includes 12 projects which Alta would like to implement within the next 5 years. Three of the projects (Albion and Sunnyside lift replacement, Cecret and Supreme lift replacement, and Supreme lift summer-groomed run) reflect fairly minor changes from the MDP update. All 12 projects are listed below and then described in greater detail in the subsequent text. A map showing the project locations is provided on the last page of this document.

- Albion/Wildcat base parking.
- Tram from Germania Pass to the top of Mt. Baldy.
- GazEx or other equivalent technologies to replace artillery and avalauncher.
- Replacement of Albion and Sunnyside lifts.
- Replacement of Cecret and Supreme lifts.
- Replacement of Wildcat lift.
- Flora lift from bottom of Sugarbowl to the top of Collins lift.
- Supreme terrain work.
- Alf's restaurant building addition.
- Watson Shelter building addition.
- Equipment storage facility.
- Lake restoration at the top of Glory Hole.

Parking

Albion/Wildcat Base Parking

Project Description: Modify the Wildcat lot to better accommodate UTA buses, carpooling, and skier drop-off. The 50 spaces that would be lost to the effort would be moved to the Albion lot. The Snowpine lot would be incorporated into an enlarged Albion lot (Figure 1). Additionally, the 48 spaces lost over the years to mass transit would be replaced in the Albion lot. The proposal, then, consists of the following elements:

- Shift 50 spaces from the Wildcat lot to the Albion lot. Take the area from these 50 spaces in the wildcat lot and use it to enlarge the turnaround/skier drop-off area, creating a travel lane wide enough for the UTA skier bus to get to and travel through the enlarged turnaround area.
- Incorporate the Snowpine lot into the enlarged Albion lot.
- Replace the 48 spaces Alta has lost to mass transit improvements over the years to the Albion lot.

Since these modifications are only replacing parking spaces that have been, or will be, lost to accommodate mass transit, there would be no net increase in parking capacity. These parking improvements would disturb and occupy approximately 2 acres of National Forest System (NFS) land.

Project Rationale: An imbalance between the capacities of the Albion and Wildcat parking areas has developed. The Albion parking lot has become the lot of choice for intermediate skiers and for

summer visitors. Most days the Albion lot fills and skiers' cars then overflow in to the Snowpine parking area, resulting in a long walk with a hill. This poses safety issues by mixing pedestrian and vehicle traffic and creates an undesirable skier experience. The project addresses this imbalance by consolidating parking into the Albion lot.

The entry to the Albion parking lot from the Snowpine lot is steep and narrow, and can be slick and difficult for kids or those with equipment. Eliminating the Snowpine lot and merging the spaces with the Albion lot would eliminate the hill and provide safer parking along the entryway.

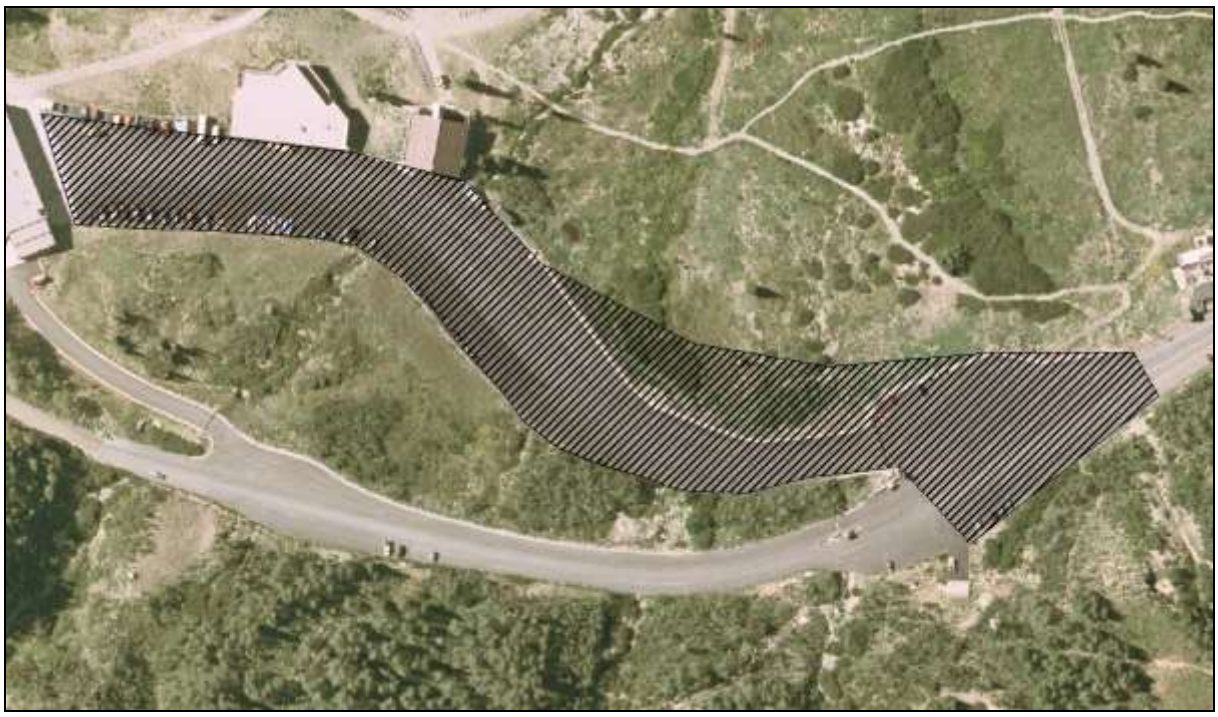


Figure 1. Proposed redesign plan area for Sunnyside/Albion base parking lot.

Avalanche Control

Alta has traditionally used conventional avalanche control methods in areas accessible via ski patrol routes and military artillery or Avalaunchers in inaccessible areas. Consistent with the ski industry's efforts to reduce use of military weapons where feasible, and to prepare for unanticipated loss of either military weapons or Avalaunchers, the Forest Service proposes to authorize the following alternative approaches to avalanche control.

Tram from Germania Pass to the top of Mt. Baldy

Project Description: Install a small (roughly 150 p/h) tram from Germania Pass to just below the top of Mt. Baldy above the Perla's area (Figure 2). The lift would be approximately 1,900 feet long and require top and bottom terminals. No intermediate lift towers would be needed. The bottom terminal and two thirds of the tram line would be on NFS land, with the remainder on Alta's private land.

The Baldy tram would be bottom driven, and power would not likely be needed at the upper tram terminal. An access road approximately 50 feet long and 20 feet wide would be constructed from the existing summer road to the location of the lower tram terminal. Power for the Baldy tram would be provided from a trenched line running from the top terminal of Collin's lift to the lower tram terminal.

The trench would be excavated in the running surface or shoulder of the existing Collin's lift access road, westward down the summer road, and then up the new Baldy tram access road.

Project Rationale: This lift would transport ski patrollers to near the top of the mountain to allow conventional explosive avalanche control work. The lift could also be used for skier access below the tram or in the east and west Mt. Baldy areas when conditions allowed. Skier compaction is also an effective tool in avalanche control. This would allow Alta to retire the 105mm Howitzer and two Avalaunchers that are currently used to do control work on Mt. Baldy.

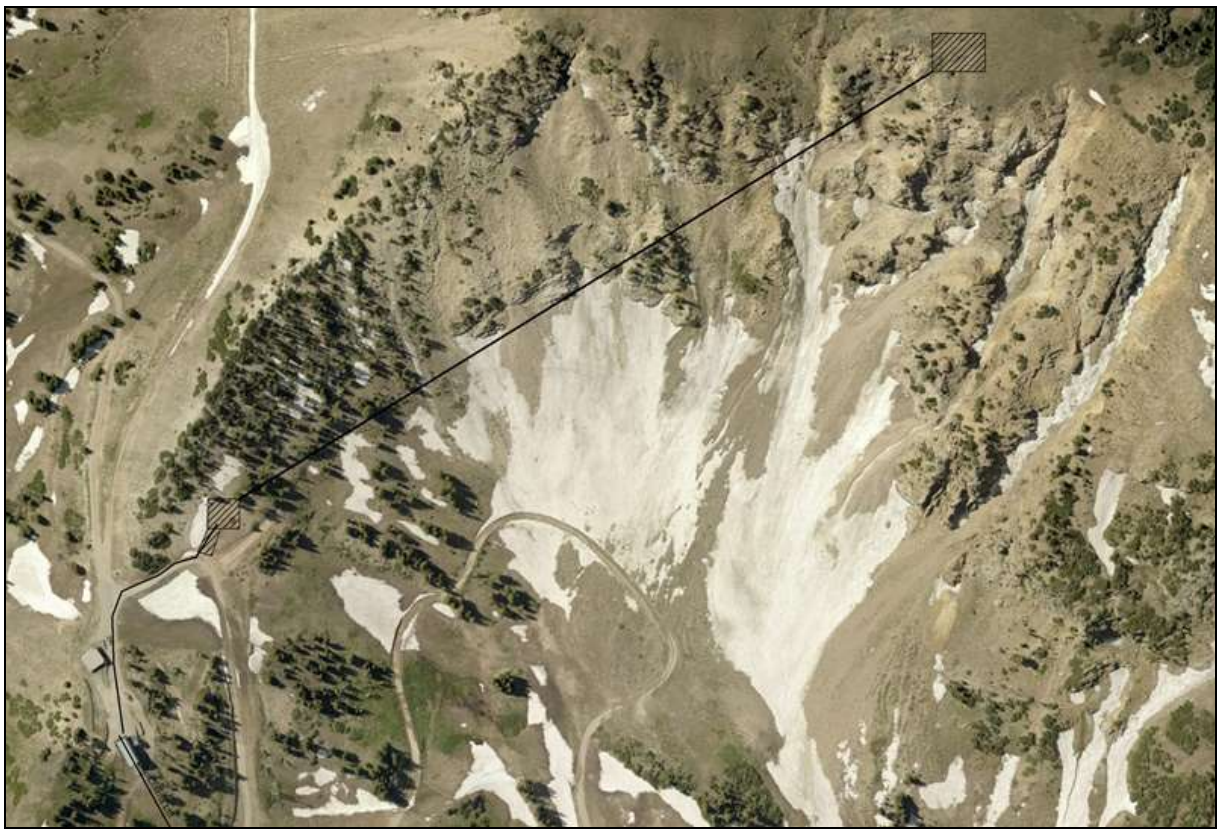


Figure 2. Proposed new tram from Germania Pass to the top of Mt. Baldy.

GazEx or Other Equivalent Technologies to Replace Artillery and Avalauncher

Project Description: Replace Avalaunchers and helicopter bombing with GazEx or other equivalent avalanche control technologies on Sugarloaf Mountain, East Devil's Castle (Figure 3), and Patsey Marley (Figure 4). If current technology GazEx exploders were used, all three locations would have four to eight exploders. An 8-foot-by-8-foot gas storage building would be needed for every four exploders. All installations would be on NFS land within Alta's current permit boundary.

Project Rationale: Avalanche paths on Sugarloaf Mountain, East Devil's Castle, and Patsey Marley/Wolverine are now controlled with Avalaunchers or with helicopter-deployed explosives. Changing to GazEx or other equivalent technologies could allow for safer, unmanned, avalanche control. These technologies would allow Alta to retire three Avalaunchers, hopefully minimizing dependence on explosives and rental helicopter services.

Figure 3. East Devil's Castle and Sugarloaf Mountain with proposed GazEx locations.


Figure 4. Patsey Marley with Proposed GazEx locations.

Replacement of Lifts Within the Existing Special Use Permit

Alta is an original ski area in the Central Wasatch, and as its lift systems age it can affect the level of service they provide, their reliability, and their repair costs. The Forest Service proposes to authorize the replacement of existing lifts as described below.

Detachable lift technology has proven to be an effective tool for adjusting skier distribution by varying lift capacity to match conditions and thus providing a desirable skier experience. For example, lift speeds can be slowed when skier density is too high, thus alleviating crowding in the terrain served by a given lift. As Alta replaces lifts or builds new lifts, they design and operate lift systems with a range of capacities to accommodate demand and provide redundancy. Reflecting these considerations, the figures provided below represent design capacity for replacement lifts and generally overestimate the capacities at which they would normally be operated.

Replacement of Albion and Sunnyside Lifts

Project Description: Remove the existing Albion lift and replace the existing Sunnyside lift with a chondola (i.e., a mix of chairs and gondola or cabriolet cabins), using the current Sunnyside lift alignment and upper and lower terminal locations (Figure 5). Some of the existing towers and tower foundations would be used for the new chondola, though some new ones may be required. New towers and cement for the foundations would be flown on site by helicopter, and any new foundations would be excavated by hand crews or spider hoe. As a result no new tower access roads would be constructed. Old towers would be removed by helicopter, and foundations that are not used with the chondola would be covered with soil and revegetated. The determination of which towers would be reused would be made when the lift was designed. The alignment is entirely on NFS land.

Project Rationale: The Albion lift is a 37-year-old fixed double grip lift. The Sunnyside lift is a detachable triple chair lift that often cannot meet the demand on busy days. A replacement of both lifts with one having 2,400 people per hour (pph) capacity would meet the expectations of today's skier market. The new lift would accommodate summer users, beginning skiers, and skiers accessing all upper-mountain lifts. Additionally, removing the Albion lift would reduce visual and land impacts.

Figure 5. Existing Albion and Sunnyside lifts with proposed removal of Albion and replacement of Sunnyside.

Replacement of Cecret and Supreme Lifts

Project Description: Combine the Cecret and Supreme lifts into one detachable chairlift with up to 2,400 pph capacity. The new lift would start near the existing bottom terminal of the Cecret lift, follow the approximate Cecret lift alignment upslope to a bending station at about tower 6, and then follow the existing Supreme alignment to the top terminal of the Supreme lift (Figure 6). Construction would require clearing tall shrubs and trees from a 30-foot wide, 600-foot long corridor. Approximately a quarter of the existing towers and tower foundations would be reused in constructing the new lift, and the remaining three-quarters of the towers and foundations would be new. New towers and cement for foundations would be flown on site by helicopter, and the foundations would be excavated by hand crews or spider hoe. No new access roads would be constructed. Old towers would be removed by helicopter, and the foundations would be buried and revegetated. Six towers and the top terminal of the existing Cecret lift would be removed.

Project Rationale: The Cecret and Supreme lifts are both 34-year-old double chairs with limited availability of replacement parts. Replacing these lifts with a single lift would alleviate the challenge of finding parts. Combining the two lifts into one would also diminish the visual and land impact. Starting the combined lift near Alf's Restaurant would greatly improve skier access to the terrain serviced by the Supreme lift. With a bend in the lift line at the existing Cecret Tower 6, the existing Supreme and Cecret lift lines could be used.

Figure 6. Cecret and Supreme proposed lift combination.

Replacement of Wildcat Lift

Project Description: Replace the Wildcat lift, a 33-year-old fixed-grip double (1,200 pph), with a detachable lift (estimated design capacity of 2,400 pph), using the same top and bottom terminal sites

and lift alignment (Figure 7). The new lift would be able to reuse some of the existing towers and tower foundations, though new towers and foundations would also be needed. No access roads would be constructed; rather new towers and cement for the foundations would be flown on site, and foundations would be excavated by hand crews or spider hoe. Old towers would also be flown off site by helicopter, and the foundations would be covered and revegetated. The alignment lies entirely on NFS land.

Project Rationale: Wildcat lift is a 33-year-old lift with diminishing parts availability. While reliability and comfort are more important issues than capacity, replacing Wildcat with a 2,400 pph high-speed detachable lift would provide lift redundancy, allowing Alta to increase Wildcat lift's operating speed if Collins lift were non-operational or if much of Collins terrain were closed due to avalanche conditions. The two lift pods overlap considerably, so a higher-capacity Wildcat lift could serve as a back-up to Collins as well as making the Wildcat area more attractive to skiers.

Figure 7. Existing Wildcat lift with proposed lift replacement.

New Lift Within Existing Special Use Permit

In addition to replacing aged, existing lifts, The Forest Service proposes to authorize the following new lift to make more efficient use of ski terrain within the current ski area boundary.

Flora Lift from the Bottom of Sugarbowl to the Top of Collins Lift

Project Description: Install a new, roughly 1,200 pph, fixed-grip, top-driven, double chairlift from the flats north of the bottom of Sugarbowl to a point approximately 100 yards north of the ski patrol dispatch building at the top of Collins lift (Figure 8). The lift would be approximately 985 feet long and require about four towers in addition to the top and bottom terminals. As discussed above for the replacement lifts, the four towers and the cement needed for the foundations would be flown on site by helicopter. The foundations would be excavated by hand crews or spider hoe, and no new access roads would be constructed for the towers. However, an access road approximately 250 feet long and 20 feet wide would be constructed from near the top of the Mamba Trail to the upper lift terminal. Power would be provided from the top terminal of the Collins lift, and would be installed in a trench along the new access road. The new lift would lie entirely on NFS land.

Project Rationale: Maintaining the East Baldy Traverse between the top of Sugarloaf lift and the top of Collins lift is a drain on snowcat and avalanche control resources. Rapidly building avalanche hazard due to wind often causes Alta to close the East Baldy Traverse. The closure creates a poor skier experience and disrupts the skier balance by forcing traffic from Sugarloaf onto Devil's Elbow that would have gone across the East Baldy Traverse and into Collin's Gulch, which increases skier density on Devil's Elbow. Even when the East Baldy Traverse is open the experience for skiers is, more often than not, unpleasant because of wind and blowing snow. Additionally, when Mt. Baldy is open for skiing, the East Baldy Traverse cuts an expert ski run in half. This lift would allow traffic to consistently flow both ways between Collins Gulch and upper Albion Basin without using the traverse.

Figure 8. Proposed new Flora Lift from the bottom of Sugarbowl on Sugarloaf to the top of Collins lift.

Trail Work

As lift systems evolve and patterns of skier use change, a ski area's trail system must be modified to avoid congestion and provide for smooth skier circulation. The Forest Service is proposing to authorize the following trail improvement projects.

Supreme Terrain Work

Project Description: Two options exist to create a groomed run from the top of the proposed Cecret/Supreme combined lift. The first is to widen and improve the grade on the existing Devil's Castle Road and tie that in with the Lower Rock and Roll (Figure 9). This involves cutting trees and excavating the inside bank of the road to improve the width and pitch to become a dual purpose road/ski trail. The second option is to begin at the top of Challenger Run and proceed to the skiers left

to the erosion gullies, then connecting to the Big Dipper run. Some vegetation would be cleared and two of the four gullies would be re-contoured using fill material imported from the Big Dipper run. Minor vegetation clearing and slope re-contouring would also be needed on the lower segment of Big Dipper to complete the run.

Project Rationale: Both options would create a summer groomed run (a long-term alternative to snowmaking) that would easily open on a normal snow year and provide an intermediate ski option. The second option would provide more of a buffer away from the Devil's Castle area, and keep skiers further from avalanche run-out zones. It would also repair two of the four erosion gullies. These gullies are steep, deeply rutted relics from early mining, timber removal, and sheep grazing activities.

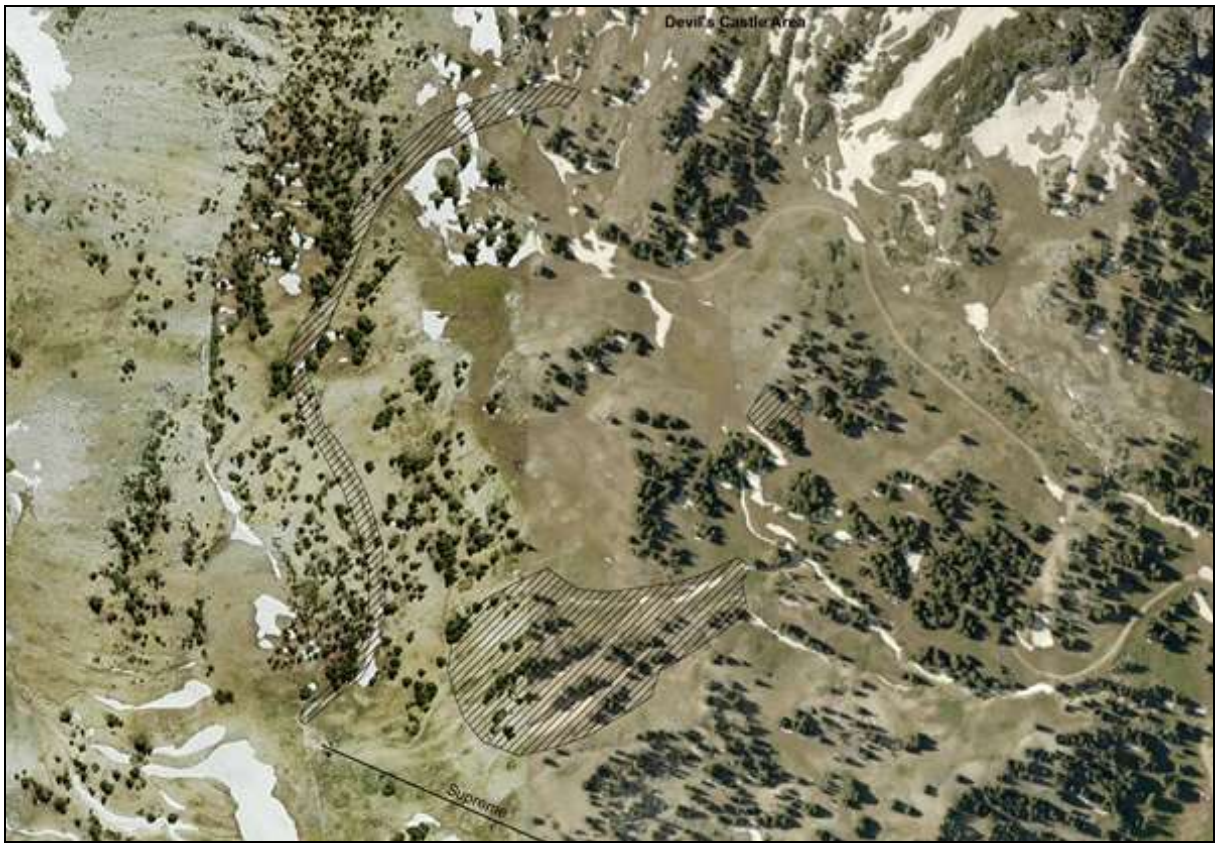


Figure 9. Proposed Devil's Castle road widening area.

Buildings

Provision of skier services at dispersed locations continues to be an important aspect of meeting the demands of today's skier market. The Forest Service proposes to authorize the following upgrades of existing on-mountain facilities and two additional new facilities.

Alf's Restaurant Building Addition

Project Description: Construct an approximately 2,000-square-foot building addition with a 550-square-foot deck on the south end of the Alf's Restaurant, providing space for additional food-service seating and relocation of the standalone Ski Demo Center into the main building (Figure 10). The small container building currently housing the demo center would be removed. The building addition would lie entirely on NFS land.

Project Rationale: Alf's restaurant is Alta's oldest mid-mountain restaurant and was not designed to have a ski shop and demo center. Currently, circulation around the south end of Alf's functions poorly, in part because of the temporary building housing the ski demo center, a crowded entrance, and a building footprint that makes snow plowing and grading difficult. The small ski shop inside Alf's has proven very popular in providing basic skier needs for Sugarloaf, Sunnyside, and Supreme skiers. That shop has displaced six tables from the cafeteria seating that could be regained with the additional space.

Time has also proven that the facility should have a straighter building line on the southeast facing entrance. Nightly snowcat grooming of the area has proven difficult in maintaining a good ingress/egress height and ski rack area.

The proposed improvements would allow for the addition of extra cafeteria tables to help meet the demand for food-service seating and ski shop space. Removal of the container building would improve access, maintenance of the skier entrance, and the aesthetics of the area.

Figure 10. Existing Alf's Restaurant building with proposed addition.

Watson Shelter Building Addition

Project Description: Construct a small 550-square-foot addition under the existing structure's deck and a 700-square-foot expansion on the west side of the building between the lower and upper entrances (Figure 11). The building addition would lie entirely on NFS land.

Project Rationale: Overall storage needs at Watson Shelter have increased. Skier demand for retail and drinks on the lower level has grown to a point that the addition is needed. Half of the space would provide storage and half would be used for skier seating in the coffee shop and skier flow area in the retail shop. Additionally, the top of the addition could provide additional deck space for the cafeteria.

Figure 11. Existing Watson Shelter building with proposed addition area.

Equipment Storage Facility

Project Description: Construct a two-story 50-by-60-foot storage facility in either one of two locations. The preferred location is east of Alta's vehicle maintenance building at a site accessible from the summer road (Figure 12). The alternative location is northwest of the vehicle maintenance building. Both locations are on NFS land. The alternative location would decrease the area available for storing snow removed from the adjacent roads and Sunnyside/Albion parking lot.

Project Rationale: Seasonal storage needs have exceeded Alta's current on-mountain and off-site facilities. Much of the ski area equipment and emergency repair parts are currently stored in a warehouse in west Salt Lake Valley. SR 210 road conditions, transportation costs, and vehicle emissions associated with maintaining a warehouse an hour away make an on-site storage facility the most feasible way to increase storage capacity.

Figure 12. Proposed equipment storage facility building, showing the preferred and alternative locations.

Snowmaking Improvement

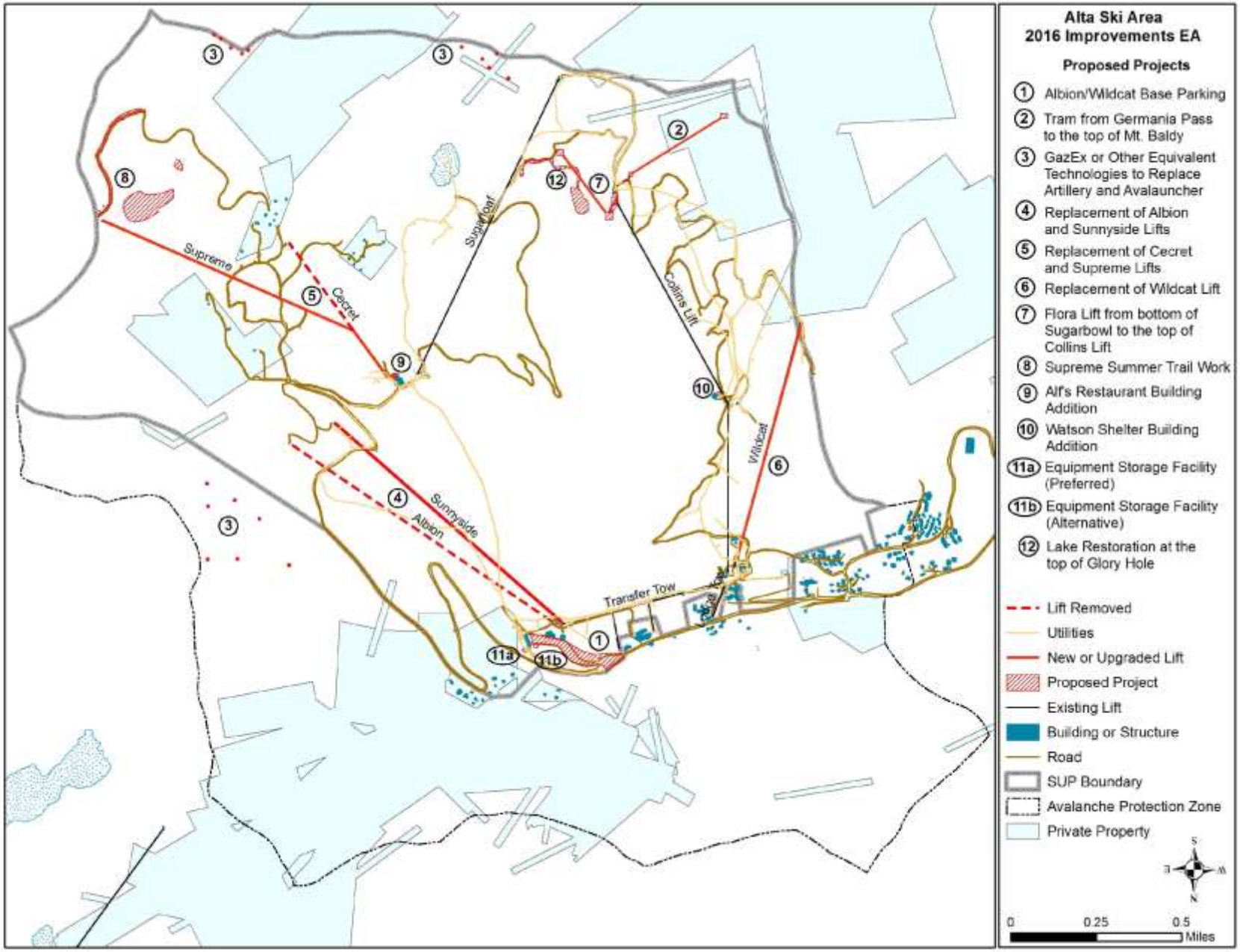
Refinement of the snowmaking system is an ongoing issue at any major ski area as technology, skier-use patterns, and water availability change. The current priorities for upgrading Alta's snowmaking system are to increase water storage capacity to roughly 10 million gallons and maximize the amount of snow that could be made in a short period of time when conditions for making snow exist.

Lake Flora Restoration at the Top of Glory Hole

Project Description: Restore the historic, small lake, Lake Flora, at the top of Glory Hole (Figure 13). This lake is a natural reservoir that would store water to supplement Alta's water storage capacity and increase the efficiency of the snowmaking system. The restored lake would be approximately 300 feet by 250 feet with a depth of 20 feet. Restoration of the lake could include excavation, lining the bottom of the lake, and/or building up the perimeter. A 10-inch diameter water line and utility conduits would be installed connecting the lake to the existing snowmaking system at the top of Widetrack on Devil's Elbow. The trench would be approximately 1,600 feet long, 12 feet wide, and 5 feet deep, with a temporary disturbance width of 30 feet. Approximately 750 feet of the trench would be excavated in the prism of an existing service road. Once the water and utility trench is filled in, the disturbed area would be re-vegetated, except where the trench is located in the service road. The project would take place entirely on NFS land.

Project Rationale: Lake Flora was present into the 1940s. Today the lake drains in early summer. Sealing the drain area, increasing the depth, and tying the reservoir water into the resort's existing snowmaking system would accomplish two things: re-creating an alpine lake and storing 8 million gallons of Salt Lake City Public Utilities water that could be used for snowmaking, as well as recreation use and fire protection. The added capacity would also allow Alta to increase the efficiency of their operations by creating the desired snow coverage over a shorter period of time, when weather conditions are conducive to snowmaking.

Figure 13. Existing lake restoration area at the top of Glory Hole.


Alta Ski Area
2016 Improvements EA
Proposed Projects
1 Albion/Wildcat Base Parking
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3 GazEx or Other Equivalent Technologies to Replace Artillery and Avalauncher
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8 Supreme Summer Trail Work
9 Alf's Restaurant Building Addition
10 Watson Shelter Building Addition
11a Equipment Storage Facility (Preferred)
11b Equipment Storage Facility (Alternative)
12 Lake Restoration at the top of Glory Hole
Lift Removed
Utilities
New or Upgraded Lift
Proposed Project
Existing Lift
Building or Structure
Road
SUP Boundary
Avalanche Protection Zone
Private Property
S
W
E
N
0
0.25
0.5
Miles
Supreme
Cecret
Sugarloaf
Collins Lift
Wildcat
Sunnyside
Albion
Transfer Tow
Flora Lift