October 31, 2012

District Ranger Cathy Kahlow
NEPA Coordinator Steve Scheid
Unita-Wasatch-Cache National Forest
6944 South 3000 East
Salt Lake City, UT 84121

To Cathy and Steve;

We respectfully submit the following information on projects, adjustments, and refinements for the Alta Ski Area, to be considered for acceptance as updates to our Master Plan.

Where applicable, the number behind each project corresponds to a location on our Special Use Permit Map.

Sincerely,

Onno Wieringa
Alta Ski Area

Encl: Alta Special Use Permit Location Map as reference for MDP update requests.

October 31, 2012

Alta Ski Area (Alta) Master Plan Update Project Requests

Alta presents the following project descriptions as an overview of the direction we are pursuing over the next several years. Although like any long-term plan this one is subject to revision, we want our skiers, recreationists, agencies and all who have an interest in Alta to better understand our direction.

An area that is not discussed in the following project descriptions is the evolution of summer recreational activities. Recent passage of the Forest Service's Summer Facilities Act, the Town of Alta's Summer Economic Development Summit and the growing number of summer visitors to Alta have all prompted us to continue studying options to address visitor impacts, demand for services and business opportunities.

Renewable Energy

Alta's skiers look to the ski area to be stewards of Forest Service lands. Alta Environmental Center will guide our efforts in energy efficiency and the pursuit of renewable energy generation. The following projects show good possible return.

- **Micro-hydro modification to snowmaking system** - With buried water lines already in place from Cecret Lake to our base areas, current study shows feasibility for generating most of our ski area power for May, June and July. A small addition to our Wildcat snowmaking pump house would be the main visible change. (P1)
- **Solar power installations on all buildings** – Alta's elevations and aspects, along with improving technology and decreasing costs, are making well-designed solar applications feasible for all base buildings, restaurants and ski patrol buildings.
- **Wind turbines at the top of all lifts except Cecret and Albion** - Evolving vertical turbine units are small, becoming increasingly attractive, functional in riming conditions and capable of generating enough power for top

terminals and lift shacks. This would reduce Alta's dependency on the grid and propane fuel.

Parking

- **Albion Base Parking** - Over the years the ski area has lost an estimated 20 parking spaces to accommodate UTA bus turnarounds and travel lanes as well as by creating more skier carpool drop-off areas. Alta would like to replace those spaces in the Albion-Sunnyside parking lot. In addition Alta would like to improve balance in our parking by moving 50 spaces from the Wildcat lot to the Albion-Sunnyside lot. Most days the Albion-Sunnyside lot fills early. Skiers' cars then overflow into the Snowpine lot. Skiers then have a long walk with a hill which also poses safety issues with car travel and it all creates a less than desirable skier experience. (P2)
- **Wildcat Parking Lot** – This request directly relates to the - "Albion Base Parking" – item above. To balance the base-to-base parking, Alta would like to move 50 spots from the Wildcat lot to the Albion-Sunnyside lot. Moving parking places from Wildcat and adding them at a reasonable elevation and distance from the Sunnyside base facilities would improve skier's experience. The loss of parking at Wildcat would be a minor issue on good powder skiing days requiring skiers to access other parking in town or use public transit. As part of this project Alta would enlarge the current skier drop off area, move the UTA bus stop into that drop off area and create a one-way traffic loop. These changes would effectively use up the area from the 50 spaces. (P2)

Avalanche Control Alternatives

Military artillery and avalaunchers have been the cornerstones of our ski area, Town of Alta (TOA) and U.D.O.T. Highway 210 avalanche control, and may be tools of the past as population increases and dispersed user patterns change.

The following are current technology alternatives we are considering as replacements for the protection of Highway 210, our skiers, and TOA buildings.

- **East Hellgate thru Grizzly Gulch slide paths above the TOA** – Avalanches from slide paths above the TOA threaten and impact private businesses, Highway 210, and Alta's facilities, lifts and skiers within our Special Use Permit area. A Highway 210 study designed to address the alternatives for replacement of artillery encouraged continued study of alternatives. All current alternatives are up for consideration at this point. Alternatives include snow fences in all avalanche starting zones, Gazexs or equivalent technologies and ski lifts to the ridgeline to provide safe access for avalanche control personnel. The ski lift options would be best combined with skiers on those slopes to gain skier compaction stability that would reduce the avalanche hazard. (P3)
- **Tram from the top of Collins lift to Mt. Baldy** – This small tram would transport ski patrollers near the top of Mt. Baldy to allow access for conventional avalanche control work. The tram would also be used for skiers when conditions allowed. This alternative would allow us to retire the 105mm Howitzer that is currently used to do control work on Mt. Baldy. (P4)
- **Gazex sites or other equivalent technologies to replace all artillery and avalauncher shot areas** – All of the avalanche paths on Sugarloaf Mountain, Devil's Castle, Wolverine and Patsey Marley are now controlled with avalaunchers or with helicopter deployed explosives. Gazex or other equivalent technologies could allow us to retire four avalaunchers. (P5)

<u>Replacement of Lifts</u>

Issues of parts availability, reliability and skier expectation with some of Alta's lifts will need to be addressed in the next few years. As lifts are replaced, capacities will be designed and recommended relative to modern ski area

design. Detachable lift technology has proven to be a great tool for adjusting skier distribution by varying lift capacity. As we replace lifts we will want to design for a broader range of capacity to accommodate demand and redundancy.

- **Albion lift** – May best be replaced by a detachable cabriolet to accommodate summer users as well as beginner skiers, and would be best designed as a high capacity lift to handle a normal crowd if Sunnyside lift were not operational. (P6)
- **Cecret lift** – Is short enough that it can remain a fixed grip lift that can run at a slower line speed to accommodate lower level skiers. (P6)
- **Wildcat lift** – Would best be replaced with a detachable quad normally running at half capacity. In the event Collins lift was not operational or much of it's terrain was closed for avalanche conditions, Wildcat lift could run at higher capacity because of its shared terrain with Collins lift. (P6)
- **Supreme lift** – This lift services some of Alta's most popular ski terrain. If the current low capacity triple and loading conveyor don't prove to be the right combination, the lift would best be replaced with a detachable quad that could provide a range of lift capacity to match terrain availability and conditions. (P6)
- **Lodge Tow and Big Grizzly Tow** – Alta and Snowpine Lodges would like to partner with Alta to replace the tows that give access to their lodges and are used by Alta skiers for beginner skiing and access to upper parking areas. (P6)

New Lifts within Exisiting Special Use Permit

- **Bottom of Sugarbowl on Sugarloaf lift to the top of Collins lift** - Maintaining the East Baldy Traverse (EBT) from Sugarloaf top to Collins top is a snowcat and avalanche control resource drain. The rapidly

building avalanche hazard from winds often causes us to close the EBT. This creates a poor skier experience and disrupts the skier balance by forcing traffic onto Devil's Elbow that would have gone across the EBT and into Collin's Gulch. The experience for skiers is, more often than not, unpleasant because of the wind and blowing snow. Additionally, when Mt. Baldy is open for skiing, the EBT cuts an expert ski run in half. This lift would allow traffic to consistently flow both ways from Collins Gulch and upper Albion Basin. (P7)

Ski Lift Connections and Possible Use of Alta Private Land

Alta continues to believe in connecting like-minded ski areas and communities with ski lifts and ski terrain. This concept is independent of what governments pursue relative to mountain transportation. Alta will focus on connections that enhance recreation, provide emergency evacuation from Highway 210, and that create options for travel other than by highway. Possible connections lie within an area from the City of Heber through Solitude Ski Resort.

- **Lift bottom terminal and 3-5 towers at the Albion Base for a lift up Grizzly Gulch -** To help us remain competitive and possibly be part of a resort interconnection, Alta continues to study the feasibility of putting a lift into Grizzly Gulch, and building the supporting winter and summer trails. To function well the lift would best originate near the Albion-Sunnyside Base area in Alta's Special Use boundary with a base terminal and 3-5 towers before it continues on to private property to the ridge. (P8)

Town of Alta and Salt Lake City Partnerships

- **Town of Alta and Alta Ski Area Community Center** – The Town of Alta would like to work with Alta to build a Community Center that would be home to Alta's non-profits, post office, interpretive center, school, meeting space, etc. Alta is supportive of this building being within it's Special Use

Permit area near the Albion-Sunnyside base. This building would require some parking that could be included with previously discussed parking plans. There is no private land that we are aware of for a facility like this in Alta. As summer visits and activities continue to increase it appears that the Albion-Sunnyside base should be the focal point of activities. (P9)

- **Lake restoration at the top of Glory Hole** –This recently drained small lake at the top of Glory Hole would work well as a natural reservoir to supplement Alta's snowmaking water. Salt Lake City Public Utilities is supportive of researching the possibility of restoring this lake or for a water reservoir. (P10)
- **Bioreactor or similar metals treatment option for Columbus Rexall mine water discharge** –The water coming out of the Columbus Rexall is high in zinc and other metals that exceed EPA standards. The technology exists to remediate the excess metals. The water runs across a combination of private and Forest Service property before flowing into Little Cottonwood Creek. Location of the system equipment, whether on private or Forest Service land or a combination thereof, is still being studied. (P11)

Lodging

All of our planning efforts identify an imbalance between our portion of skiers staying in Alta and those traveling daily up and down Highway 210. The finite capacity of Highway 210 coupled with the expansion of Snowbird points to a deteriorating experience for skiers on Highway 210 as well as a diminishing market for the day businesses in the Town of Alta. Alta will continue to study the best options of building overnight accommodations on Forest Service land within our Special Use Permit and the Town of Alta Base Facilities Zone for an additional 500-900 skiers.

Adjustments to Existing Infrastructure

As Alta evolves, bottlenecks and inefficiencies are identified, capacities of various kinds get out of balance, and skier preferences and expectations change as new technologies become available. These realities drive the following projects.

- **Trail Work**
    - **Corkscrew/Nina's Curve** – Widening Corkscrew would give the ski area an intermediate run with consistent width and pitch off of Collins and Wildcat lifts. Currently, intermediate trail width off both of these lifts is adequate until a skier reaches the top of Corkscrew where the run narrows to half the width of the run above and the pitch increases from approximately 28% to 38%. The proposed grading effort would improve skier safety and the intermediate skiing experience. This project would also eliminate the need for the Rustler Cat Track as an easier way down, thereby improving skiing on High Rustler for experts. This project would fix the water erosion problem in Nina's Curve and reclaim the mine overburden pile that sits between Nina's and Corkscrew runs. (P12)
    - **Devil's Castle Road** – In keeping with Alta's long-term goal of having at least one summer groomed run off each lift to provide an "easy way down", Alta would like to continue working on Supreme lift terrain. Widening and improving the grade on Devil's Castle Road would blend in with the Rock and Roll grade improvements completed in the mid 80's.The current road is too narrow and has pitches that are either too steep or too flat. (P13)
    - **High Traverse off Collins lift** – The popularity of this ski terrain has continued to increase along with skier's abilities brought on by better equipment. The result is that the High Traverse is often eroded to the rocks - affecting access, safety and skier choice. The short-term

remedies we use now are labor intensive and often short lived. A combination of better functioning snow collection devices and some narrow benching starting on the north side of Sunspot would greatly improve the skier experience, safety and aesthetics. (P14)

- **Ballroom Traverse off Collins lift** – Ballroom is a great area for intermediate skiing, but the traverse leading into it is often an expert skiing experience. Skiers struggle as a few trees limit their trail options and concentrated skier use breaks down the snow in those areas causing nearly unskiable potholes that require heavy shovel maintenance. Removing a few trees, completing a narrow bench for about 75 yards and employing snow collection devices would improve the trail consistency, skier safety and the skiing experience. (P15)

- **Buildings**
  - **Alf's Restaurant** – Currently the Alf's Ski Demo Center is outside the building in a small trailer that is not consistent with Alta's architectural design theme. 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 a few tables from the cafeteria seating. Time has 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 snow quality due to the tight corner. By building an approximately 20'x 40' addition to the building, Alta could add extra cafeteria tables to help meet the demand for seating, move the Ski Demo Center out of a trailer and improve the maintenance and access of the skier entrance. (P16)

- **Watson Shelter** – A small addition on the West side of the building between the lower and upper entrances would balance the retail and storage needs of that facility. The popularity of the ski shop and a need for increased storage leads us to this request. (P17)
- **Supreme Yurt** – A seasonal food and drink yurt on Supreme ski terrain, adjacent to the Challenger run, would add a unique option that would help Alta remain competitive and enhance the mountain experience for our skiers. (P18)
- **Equipment Storage Facility** – Seasonal storage needs have exceeded our current facilities. Much of the ski area equipment and emergency repair parts are now stored in a warehouse in west Salt Lake valley. Because of Highway 210 road conditions, transportation costs and emissions associated with a warehouse an hour away, Alta would like to build a storage facility in front of, or behind our vehicle maintenance building. (P19)

Snowmaking Refinement

Over time Alta has identified snowmaking system improvements. That coupled with a recent energy audit have led to the following proposed changes.

- **Upper Corkscrew on Collins lift** – Most of West Rustler, Racecourse and Sunspot skiers are fed into Upper Corkscrew, which requires sufficient snow cover to handle that skier density. Currently, to maintain coverage we devote an inordinate amount of time and energy pushing and hauling snow into Upper Corkscrew. A 200' electric and water spur would allow snowmaking where it is needed and would improve the skiing experience. (P20)
- **Green Trail to Pitch 1 on Devil's Elbow off Sugarloaf** – The lowest pitch on Devil's Elbow is the only piece of the trail without a snowmaking hydrant. An excessive amount of time and energy pushing and hauling

snow is required to keep the area covered in early season. Burying a 350' electric and water spur to that area would improve snow coverage and consistency. (P21)

- **Devil's Elbow on Sugarloaf lift** –In order to maintain a consistent, reliable and efficient snowmaking system Alta proposes to bury primary power in one 1300' section from Cecret Lake turn to the top of the Widetrack. This Sugarloaf improvement of a direct buried line would also create redundancy in power to Collins and Sugarloaf snowmaking, lifts and buildings by allowing power to be fed in any direction between Collins Gulch and Albion Basin. (P22)
- **Dipsey Doodle on Sunnyside lift** – Alta proposes to install a 400' long water and electric spur in the summer road to address increasing skier demand on Dipsey Doodle. Currently Alta spends an inordinate amount of time and energy pushing and hauling snow to the run in the early season. (P23)
- **Rock Garden on Collins lift** – This improvement requires a 400' spur with power and water to complete the snowmaking corridor between Mambo and Main Street through an area known as Rock Garden. Snowmaking in this area will improve early season skiing and decrease skier hazard through this windswept, rocky area. (P24)