

# **SNOWBASIN MASTER DEVELOPMENT PLAN IMPROVEMENT PROJECTS ENVIRONMENTAL ASSESSMENT**

## **INTRODUCTION**

On February 17, 2015, the Ogden Ranger District of the Uinta-Wasatch-Cache National Forest (UWCNF) received a proposal from Snowbasin Resort to implement seven projects that would resolve existing infrastructure issues and augment recreation opportunities at the resort. Five of these projects were from Snowbasin's accepted 2009 Master Development Plan (MDP). The remaining two address needs identified since 2009.

On March 19, 2015, the UWCNF accepted the two new projects as amendments to Snowbasin's MDP and agreed to consider authorization of all seven projects. Because the proposed projects could impact National Forest System (NFS) resources, the UWCNF is analyzing and disclosing these impacts in accordance with the National Environmental Policy Act (NEPA) prior to deciding whether or not to approve this action. An environmental assessment (EA) will be prepared to document that analysis.

Snowbasin Resort straddles the Weber and Morgan county boundary on the east side of Mt. Ogden in Utah's Wasatch Mountains, approximately five miles east of Ogden. The resort has operated under a special use permit (SUP) issued by the Forest Service since 1939. The current SUP was issued in 2001 and is administered by the UWCNF. It has a term of 40 years.

The EA will be tiered (40 CFR 1502.2) to the 1990 *Final Environmental Impact Statement for the Proposed Snowbasin Destination Resort*, which is available at the Ogden Ranger District, 507 25<sup>th</sup> Street, Suite 103, Ogden, UT, 84401.

The UWCNF will prepare the EA in compliance with NEPA and Forest Service regulations (36 CFR 220). The EA will disclose the direct, indirect, and cumulative environmental impacts that would result from implementing the proposed action and alternatives, in support of an agency decision regarding Snowbasin's requested authorization.

## **PROPOSED ACTION SUMMARY**

The proposed action includes the following elements (see detailed description below):

1. Strawberry Quad lift installation.
2. Wildcat lift replacement.
3. Wildcat snowmaking.
4. Mt. Ogden Bowl ski run improvements.
5. Summer trails.
6. Upper Porky Face access road rehabilitation.
7. Lower Penny Lane ski run improvements.

## **PURPOSE AND NEED**

Along with the 2003 Revised Forest Plan for the Wasatch-Cache National Forest, two emerging developments in the mountain resort industry underlie the purpose and need for the proposed action. First, mountain resort visitors are increasingly seeking a more diverse range of recreational activities, particularly for families, that includes year-round opportunities and more adventurous activities. The

Forest Service response to this trend includes our 2012 introduction of the *Framework for Sustainable Recreation*, which sets goals for providing a diverse array of recreational opportunities aimed at connecting people with the outdoors and promoting healthy lifestyles, in partnership with other public and private recreation providers.

Second, passage of the *Ski Area Recreational Opportunity Enhancement Act of 2011* provides long-awaited direction on the types of summer activities the Forest Service should consider authorizing to round out the range of opportunities provided to the public at permitted mountain resorts.

Reflecting the three guiding documents, the purposes to be achieved through the proposed action are:

1. To replace aging infrastructure with newer, modern infrastructure to facilitate a safe and beneficial recreation experience.
2. To provide new and innovative forms of year-round outdoor recreation on National Forest System (NFS) lands for residents and visitors to Snowbasin.
3. To utilize existing resort infrastructure as the hub for new services and recreational activities.
4. To capitalize on the established relationship between the UWCNF and Snowbasin that connects visitors with the natural environment and supports the quality of life and the economy of the local community.

The needs that must be resolved in order to achieve these purposes include:

1. Design, construct, and operate recreation facilities, trails and concentrated use areas to provide a beneficial recreation experience, reducing social conflicts and minimizing or avoiding adverse effects on watershed integrity, soil productivity, aquatic/riparian systems, terrestrial species and their habitats, and cultural resources
2. Ensure that recreation facility maintenance meets established national standards and contributes to healthy, safe recreation experiences.
3. Providing safe and reliable lift access to underutilized portions of the SUP area.
4. Replacing outdated lifts.
5. Alleviating constraints to skier circulation in the network of ski runs, especially those affecting beginning and intermediate skiers.
6. Increasing snowmaking coverage to allow more reliable and earlier opening of the ski area and to maintain snow quality in high-use areas.
5. Meeting expressed demand for more hiking and mountain biking trails, particularly lift-served trails.

The detailed descriptions below show how each element of the proposed action helps resolve these needs.

## **DECISION TO BE MADE**

In consideration of the stated purpose and need and this analysis of environmental effects, the responsible official, the UWCNF forest supervisor, will review the proposed action and alternatives to make the following decisions:

- Whether to authorize the proposed action or an alternative to it, all or in part;
- What design criteria and mitigation measures to require for the actions authorized; and

- What evaluation methods and documentation to require for monitoring project implementation and mitigation effectiveness.

## **PLANNING GUIDANCE**

### **Forest Plan**

The 2003 Revised Forest Plan for the Wasatch-Cache National Forest (Forest Plan), provides primary guidance for management of the land and resources on the UWCNF, including the portion of Snowbasin on NFS land. The Forest Plan indicates that Snowbasin's SUP boundary falls within the North Wasatch Ogden Valley Management Area and is subject to both forest-wide and management area-specific standards and guidelines pertinent to this type of proposal.

The Forest Plan provides management prescriptions that define the primary land use allocation for a given land area. Management prescription categories provide a general sense of the management or treatment of the land intended to result in a particular condition being achieved or set of values being maintained or restored. Each management prescription includes a set of standards and guidelines identifying activities that are not allowed and parameters within which activities that are allowed should be conducted. Management prescriptions for each category identify management emphasis and focus, highlighting considerations for harmonious and coordinated multiple-use management, maintenance of productivity, and the relative values of various resources.

Snowbasin Resort is primarily located within management prescription 4.5 (Developed Recreation Areas), though small portions are also in 3.1w (Watershed). These management prescriptions are as follows:

Developed Recreation Areas: These areas include developed facilities such as campgrounds, railheads, boat docks, and resorts under special use permit as well as adjacent areas associated with these sites. High levels of visitor interaction can be expected where sights and sounds of others are noticeable and there are moderate to high opportunities for social interaction. Access to these areas is primarily by motorized roads with some trails. Visitors can expect higher levels of regulation. Signs and visitor information are noticeable throughout the area. Site development tends toward the Roaded Natural to Rural end of the Recreation Opportunity Spectrum (ROS). Facilities vary from rustic using native materials to facilities designed primarily for visitor comfort or convenience and built using synthetic materials. Visitor impacts can be noticeable. Impacts to natural resources are dealt with through various management techniques and regulations. Management visibility is high with managers focusing on public safety, service, education, user ethics, and enforcement. Americans with Disabilities Act (ADA) level development is encouraged. Because of the large capital investments in these areas, site protection is paramount (Forest Plan, pp. 4-73 to 4-74).

Watershed: Emphasis is on maintaining or improving the quality of watershed conditions and aquatic habitats. Watershed function and aquatic habitat values are recognized as important and may require restoration to reach desired conditions. Areas of municipal watershed and public drinking water sources will be managed to maintain or improve soil processes and watershed conditions. Where improvement is needed, it is achieved by implementing watershed improvement projects, and by applying soil and water conservation practices to land-disturbing activities (Forest Plan, pg. 4-69).

### **Snowbasin Master Development Plan**

The 2009 Snowbasin MDP (pg. 2) states that:

The overall purpose of the projects is to meet the operational goals established for Snowbasin and to provide for winter and summer recreation under terms of the special use permit granted by the Forest Service. The strategy for the individual projects and the combination of projects is as follows:

- Continue to provide high-quality skiing and riding conditions, emphasizing well-placed and efficient lift systems, minimal site disturbance and the ability of guests to experience the unique Snowbasin mountain characteristics. Snowbasin will continue to rank very high by national media for lift systems, snow conditions, and guest services, including food service.
- The strategy is designed to provide for continuation of the uncrowded skiing conditions, add access to additional skiable terrain and provide alternatives for guests moving around the mountain for a variety of experiences.

Most projects comprised by the proposed action are basically MDP elements that have been updated to meet current market and operational expectations and provide high-quality services to guests. They would allow the resort to improve skier distribution, better respond to weather conditions, reduce lift lines, and provide better access between Strawberry area terrain and the base area.

#### **Development Agreement for the Snowbasin Resort, Morgan County, Utah**

Snowbasin has a development agreement in place with Morgan County Council, signed in 2013 (Ordinance CO-13-16). The focus of this agreement is development of private land adjacent to the ski area, and it specifies provisions and requirements regarding such development. Relevant to land within the ski area boundary, the agreement states that Snowbasin is also to comply with all local, state, and federal laws regarding wildlife and wildlife habitat, and water quality.

### **SCOPING AND IDENTIFICATION OF ISSUES**

The purpose of our first solicitation was to get public input on the “scope” of the EA—the issues and concerns it addresses and the means it identifies to avoid or minimize adverse impacts (i.e., alternatives, design criteria, and mitigation measures). On March 28, 2016, the UWCNF issued a public scoping notice summarizing the proposed action and inviting comments. The notice was mailed to the agencies, organizations, and individuals on the UWCNF mailing list. It was also posted on the UWCNF website and made available to anyone requesting it.

The 30-day scoping period closed on April 27, 2016. Comments were received from one organization and one individual. A scoping report was prepared that identified commenters, listed the comments that were received, and noted the disposition of those comments in this NEPA process. The scoping notice, comments, and scoping report are included in the project record.

The proposed action and scoping results were reviewed by a UWCNF interdisciplinary team (ID Team) to determine what environmental issues the EA will address (40 CFR 1508.25). Issue statements were formulated, organized by resource discipline, then reviewed and approved by the responsible official. They include issues to be analyzed in depth and those dropped from in-depth analysis for various reasons (e.g., because they were beyond the scope of this environmental analysis, expressed opinions rather than raising issues, involved matters covered by other laws or regulations, or were too speculative to effectively analyze). The two categories of issues are discussed in the following sections.

#### **Issues Analyzed in Depth**

##### ***Soil, Water, and Watershed Resources***

- *How would the proposed infrastructure affect erosion, sedimentation, and water quality?*

The project area is characterized by steep slopes, erosive soils and, in many areas, sparse ground cover. Some areas, including the Penny Lane ski run area, are subject to landslides. Construction-related disturbance and subsequent use could result in decreased soil quality, increased soil erosion, sediment transport, water quality impacts, and instability.

- *How would the proposed infrastructure affect wetlands and riparian areas?*

While water resources in the SUP area are limited, the project area includes several types of wetlands, riparian areas, and intermittent and perennial streams. Construction and subsequent use could decrease the functioning and the extent of these valuable, aquatic habitats.

### **Vegetation**

- *How would the proposed infrastructure affect special-status plant species?*

No federally listed plant species are known to occur at the Snowbasin Resort, but 10 Forest Service Region 4 sensitive species and three UWCNF watch-list species may occur in potentially disturbed areas. Glading, clearing, grading, excavation, or subsequent use could adversely affect plants of these species.

### **Wildlife**

- *How would the proposed infrastructure affect special-status wildlife species and other species of interest or concern?*

There is no potential habitat for any federally listed wildlife species in the Snowbasin SUP area, but potential habitat for four Forest Service Region 4 sensitive species— some in more than one category — does occur. Other species of concern to the public or agencies are also present, such as migratory birds and big game species. These species could be affected through habitat alteration resulting from clearing, grading, excavation, or changed patterns of human activity.

### **Fish**

- *How would the proposed infrastructure affect fish species and habitat?*

While there are no fish-bearing water bodies at Snowbasin, Wheeler Creek's headwaters are within the SUP area, and lower reaches located downstream of the ski area support fish including Bonneville cutthroat trout. Construction-related disturbance could result in increased soil erosion, sediment transport, and water quality impacts that could indirectly impact downstream fish populations.

### **Heritage Resources**

- *How would the proposed infrastructure affect historic and pre-historic resources?*

The clearing, grading, and excavation associated with construction of the proposed facilities could affect historic and pre-historic cultural resources.

Indicators: Compliance with Section 106 of the National Historic Preservation Act, based on a records search, pedestrian survey of disturbed areas, submittal of a report of findings to the State Historic Preservation Office (SHPO), and concurrence by the SHPO on the UWCNF determinations of significance and effect.

### **Scenic Resources**

- *How would the proposed infrastructure affect the scenic quality of the SUP area?*

The SUP area viewscape has been affected by 76 years of ski-area development but generally retains its natural character. Additional clearing and infrastructural development could alter that character and detract from the area's scenic integrity.

## **Recreation**

- *How would the proposed Circle of Cirques trail affect hikers and other recreationists outside the SUP boundary?*

The proposed Circle of Cirques hiking trail would traverse the ridgeline from Middle Bowl north to No Name Peak. User-created trails already exist along this route, but formalizing and improving could increase use of the trail and potentially impact other users' enjoyment of the area on the other side of the ridge, outside the permit area.

## **Issues Considered but Not Analyzed in Depth**

### **Vegetation**

- *How would the proposed infrastructure affect forest vegetation at the resort?*

Discussion: Forest communities are among the most productive and structurally diverse vegetation types occurring at the resort, but no trees would be removed on NFS land. Most of the proposed infrastructure is sited in previously cleared areas or above timberline. As a result, clearing and fragmentation of forest habitat is not an issue warranting more in-depth analysis in the EA.

### **Heritage Resources**

- *How would the proposed infrastructure affect the historic integrity of the resort and any historic properties in the SUP area?*

Discussion: Snowbasin is one of the oldest continuously operating ski areas in the nation, with the first tow installed in 1939. However, over the ensuing years, the ski area expanded and older facilities were replaced. Development completed in preparation for the 2002 Winter Olympics changed Snowbasin's character dramatically. At this point, there are no building, lifts, or other infrastructure dating back over 50 years. Although Snowbasin's current infrastructure is less than 50 years old, the potential for any ground disturbing activity to affect *Historic Properties* (any cultural resource deemed eligible to the National Register of Historic Places, both prehistoric and historic) will be assessed through compliance with Section 106 of the National Historic Preservation Act.

- *How would the proposed infrastructure affect Cultural Concerns, Traditional Cultural Places (TCPs), or Native American Sacred Sites?*

Discussion: The UWCNF will consult on a govt. to govt. basis with Native American Tribes of concern regarding this proposed action, and provide tribal entities with the results of the NHPA Section 106 compliance. The USDA Forest Service will take concerns identified by the tribes into account in analyzing the potential of the undertaking to affect cultural concerns, TCPs, or Native American Sacred Sites

### **Growth-Related Effects**

In terms of addressing potential growth-related effects of the proposed action and alternatives, Snowbasin's 2006 SUP establishes a limit of 9,600 skiers at one time. Peak days in recent years have been about 6,400 skiers, well below that figure, with no capacity issues. As a result, the focus of this EA will be the resource impacts of infrastructure development under the proposed action and alternatives, and not the impact of more visitors to Snowbasin. Accordingly, impacts in the following areas will not be addressed further in the EA:

1. Air Quality
2. Transportation and Parking
3. Utilities
4. Socio-economics

## **ALTERNATIVE FORMULATION**

Analysis of the no-action alternative provides a baseline for assessing the impacts of the proposed action and any action alternatives. In this case, no action would mean that the proposed improvements were not approved. Snowbasin would continue current operations and previously approved projects. Any previously approved projects planned for completion within the same five-year timeframe as the proposed action, coupled with on-going operations, comprise the no-action alternative in this analysis.

As indicated above, Snowbasin's proposed improvements projects are the proposed action addressed in the EA. They are described in detail below. The type and extent of surface disturbance associated with each project included in the no-action alternative and proposed action will be described in the EA.

Action alternatives are different courses of action by which the purpose and need addressed by a proposed action could reasonably be achieved. For this analysis, no alternative-driving issues were identified. One scoping comment suggested an alternative which was determined not to warrant in-depth analysis. This determination is addressed below in the section on alternatives considered but not carried into in-depth analysis.

Based on these considerations, the EA will provide in-depth analysis of two alternatives, no action and the proposed action.

## **ALTERNATIVE 1 – NO ACTION**

Under the no-action alternative, the proposed action would not be authorized. Ongoing resort operations would continue. Snowbasin has no back log of approved but uncompleted projects. While the Strawberry Quad lift and the associated skiway and utilities were approved in a 2008 decision memo, enough time has elapsed that that project is being re-assessed as part of the proposed action in this analysis.

## **ALTERNATIVE 2 – PROPOSED ACTION**

The attached figure shows the projects comprised by the proposed action. They are described below.

### **Strawberry Quad Lift Installation**

The proposed Strawberry Quad lift would provide an alternative to the Strawberry Express gondola. Currently, the gondola is the only lift in the Strawberry area. Although the gondola has the capacity to carry 2,400 people per hour, certain conditions justify the construction of a second lift. First, the top terminal of the gondola is located in a saddle between Strawberry Peak and DeMoisy Peak and is frequently exposed to inclement weather, including high winds and poor visibility, and to avalanche hazard. These conditions can create unfavorable skiing conditions off the top of the lift and, if severe enough, require shutting down the gondola. When the gondola closes, there is no other lift-assisted option for skiers in the Strawberry area to ski at lower elevations where conditions are more favorable or to return to the main base area. In addition, the ski runs initiating on the ridgeline require a long traverse that can be too difficult for intermediate-level skiers during inclement weather.

In the past, snowcat shuttles have been necessary to evacuate stranded skiers from Strawberry pod when the gondola has closed unexpectedly. To avoid this situation, the entire pod is closed when weather conditions are threatening, eliminating 35 percent of the terrain capacity of the resort. The top terminal of the proposed Strawberry Quad lift would be below the ridge, and thus not as exposed to weather as the gondola, and it would be better situated to provide access to the true intermediate-level terrain lying below the ridge. As a result, the new lift would allow the resort to safely utilize the Strawberry pod under a much wider range of conditions, as well as providing redundant uphill capacity and egress from the Strawberry area.

The Strawberry Quad lift would be aligned north of the existing Strawberry Express gondola. The lower terminal would be at an approximate elevation of 6,605 feet, slightly down gradient from the lower gondola building to prevent congestion while still allowing gondola building users to ski to the lower terminal. The upper terminal would be located at an approximate elevation of 8,575 feet, which is 675 feet below the ridgeline. Only the upper terminal and one or two towers would be on NFS land, the remainder on Snowbasin's private land.

In the proposed alignment, the lift would provide access to over 80 percent of the Strawberry terrain. The gondola would continue to provide access to the remaining 20 percent of the terrain, including expert, advanced, and intermediate runs, in the Strawberry area. A redundant lift in this area would allow resort visitors to continue to utilize the terrain or return to the main base area when the gondola was closed.

The Strawberry Quad lift would be approximately 8,500 feet long, with a vertical rise of 1,970 feet and a design capacity of 2,400 people per hour. It would be a high-speed, detachable, top-drive lift. Constructing the lift would disturb approximately 1.4 acres of ground surface, including 0.5 acre of NFS land. Trees and brush would be removed from approximately 7.8 acres, including 0.4 acre on NFS land, in order to clear the lift alignment. Lift towers would be installed by helicopter; no permanent access roads would be constructed for lift tower installations. The footings for new lift towers would likely be excavated using a tracked excavator, which would access tower sites in a single pass by crawling out from existing roads.

As noted above, the Strawberry Quad and four smaller projects were authorized in a 2008 Decision Memo but will be addressed in the EA to update that analysis. Two of the smaller projects involved installing snowmaking infrastructure on Dan's Run and have been completed. The remaining two projects are associated with the Strawberry Quad lift. As such, they are incorporated into the proposed action as part of the Strawberry Quad lift installation.

The first is construction of a 30-foot-wide skiway extending from the upper terminal of the proposed lift for a distance of approximately 850 feet, connecting to Main Street ski run. This new skiway would be used as a summer access road to the upper terminal, and vehicle traffic would be limited to Snowbasin operations and administrative purposes. A snowmaking line would be installed in the ski run to provide safe and reliable egress from Strawberry Bowl.

The second project is installation of a buried electric line to provide power to the upper terminal. The electric line would connect to the existing power source at the snowmaking building. These two small projects would disturb approximately 0.75 acres of NFS land. All disturbed areas would be subject to standard rehabilitation and revegetation efforts after construction was complete.

### **Wildcat Lift Replacement**

The Wildcat lift was initially constructed in 1973 to provide access to the Middle Bowl and Porcupine lifts. It is a fixed-grip triple chair with a capacity of 1,200 people per hour. The lift is now operated primarily to provide redundancy to the Needles Express and Becker lifts, and to provide additional out-of-base capacity during busy periods when skiers are waiting to access the upper mountain. Replacing the existing Wildcat lift with a high-speed, detachable-quad lift is proposed. The proposed lift would improve skier-traffic flow in the Wildcat area, facilitate circulation to other areas of the mountain, and support racing and race training in Wildcat Bowl.

The upgraded Wildcat lift would be constructed largely on the same alignment as the existing lift, though the lower terminal may be shifted slightly to the north to decrease interference with the ski runs exiting the Wildcat area. The lift would remain approximately 4,800 feet long, with a vertical rise of 1,360 feet, but capacity would double to 2,400 people per hour. The lower terminal and first couple of towers would be located on private land, and the remainder of the lift would be on NFS land. The existing lift and

towers would be removed, though the lift tower footings would be left in place and buried to minimize ground disturbance. The footings for new lift towers would likely be excavated using a tracked excavator, which would access tower sites in a single pass by crawling out from existing roads. As appropriate, excavators may also use access roads which still remain from the original Wildcat lift construction. Lift replacement would result in ground disturbance on 1.25 acres, including 0.7 acre of NFS land.

### **Wildcat Snowmaking**

Three main return routes carry the majority of the base area return traffic and repeat skiing from the Needles Express gondola. The Blue Grouse/City Hill route is located furthest west, the Bear Hollow/School Hill route is furthest east, and the Wildcat route is located between the two. All three are typically congested during busy periods. The Wildcat area is popular for races and can be isolated from other pods. Inadequate snow cover is one of the factors which limit the full, efficient use of the Wildcat area. Low snow cover can limit grooming, especially at the lower end of the pod where the Wildcat run crosses the summer road.

The proposed snowmaking would improve snow cover in Wildcat Bowl and on Eas-A-Long, Herbert's, Stewart's, Stein's, and Upper Blue Grouse ski runs. Snowmaking would improve snow cover early in the season to better match the amount of snow accumulated on upper portions of the mountain. Conversely, when snow cover on the upper portions of the mountain was inadequate, snowmaking in the Wildcat area would allow the resort to open the lower portion of the mountain alone. In combination with the proposed Wildcat lift replacement, snowmaking would make the Wildcat pod a more important and integrated part of the resort and a key component of early season operations.

The proposed Wildcat snowmaking system would include approximately 14,900 feet of buried water line and would provide snowmaking capability to approximately 39.4 acres of the Wildcat pod. The snowmaking system would be designed to maximize snow distribution without hindering skier use of the runs. The new snowmaking lines would be constructed primarily in previously disturbed areas such as roads and skiways. Construction of the Wildcat snowmaking system would disturb approximately 7 acres of NFS land.

### **Mt. Ogden Bowl Ski Run Improvements**

The Mt. Ogden road doubles as a summer access road to the top terminal area of the John Paul lift and as the only intermediate-level route down from the upper terminal and restaurant, known as Mt. Ogden Bowl ski run. The run is narrow, adjacent to rough, rocky terrain, and has sharp corners. Because of the roughness, snow coverage is often a problem during the early season and may delay opening the run. With adequate snow cover, the ski run is only 20 feet wide. Grooming can increase the width of the run by another 5 to 10 feet when conditions are right.

These circumstances make the ski run challenging for intermediate-level skiers, especially if weather conditions limit visibility. Under favorable weather conditions, the run can still be congested as advanced skiers overtake slower skiers. The proposed improvements would widen the Mt. Ogden Bowl ski run and provide snowmaking capability, thus removing constraints imposed by terrain and poor snow coverage. Improvements would also be made to a lower segment of the ski run located on private land. Those improvements would total about 5 acres and would overlap the area disturbed by snowmaking installation.

The proposed Mt. Ogden Bowl improvements include ground surface grading and rock removal along a 1,500-foot segment of the existing run that would increase the run width to between 100 and 150 feet. The radius of sharp corners would be increased to match the overall fall line. The project would be completed using on-site cut and fill material. Water lines from the Porky Face area would be extended to support snowmaking operations. Trail grading and snowmaking line installation would disturb approximately 5 acres of NFS land.

## **Summer Trails**

Snowbasin has an extensive summer recreation trail network that is used by hikers and mountain bike riders. A number of user-created trails parallel the ridgeline that forms the western boundary of Snowbasin, some extending beyond the ski area's SUP boundary. Collectively, these trails are known as the Circle of Cirques. They are a source of surface disturbance and erosion, and they pose a potential safety issue since they are not constructed or maintained to a set standard. It is proposed that existing Circle of Cirques trail be improved to Forest Service standards to reduce erosion and increase safety. Access routes to the trail from the Needles Lodge and from an access road on Mt. Allen would also be improved.

The finished trail, including the Needles access route, would be approximately 3.4 miles in length and create a temporary disturbance approximately 4.5 feet wide. The trail would be constructed using hand tools or small excavators, and would result in ground disturbance on 1.9 acres, including 1.5 acres of NFS land. However, since parts of the trail already exist as user-created trails, the actual new disturbance would be less than 1.5 acres on NFS land.

The existing, user-created Circle of Cirques trail extends beyond the SUP boundary in some locations. To facilitate efficient administration of the trail, the portion of the trail outside of the permit boundary will be managed by the Ogden Ranger District of the UWCNF.

Another summer trail system would be created in the Wildcat area, providing the opportunity for lift-served mountain biking – a “flow trail system.” It would include three segments. The first segment, a “green” or easier trail, would begin at the top of the Wildcat lift and switchback down the Eas-A-Long ski trail to the point where the trail ends and traverses to the skier's right. At that point the bike trail would proceed downslope between the Wildcat Bowl and Bear Hollow ski runs, where it would tie into the existing Needles bike trail at the intersection with the mountain service road.

The second segment, a “blue” or intermediate trail, would switchback down Wildcat Ridge, mostly in the trees, to just above Showboat ski run, then down through the forested patch between Showboat and Orson's runs to merge with the existing Needles trail.

The third segment, a “black” or advance trail, would split from the blue trail just above Showboat ski run, cross Blue Grouse run, then and descend through the trees south of City Hill, between the men's and women's downhill finishes, to merge with the existing Maples trail.

This trail system would take advantage of the Wildcat lift replacement. The new lift would be operated in the summer, providing uphill access to the central portion of the lower mountain, which is underutilized in summer as well as winter. Mountain bike trails on the upper mountain are difficult to build, maintain, and use due to the rocky terrain. These new trails would shift the focus of the bike trail system to lower on the mountain, where conditions for building and using trails are more favorable.

The three segments would have a combined length of 5 miles, and would create a temporary disturbance approximately 7.5 feet wide. Construction would disturb 4.5 acres, including 3.7 acres of NFS land.

Many Forest Service trails in the vicinity of Snowbasin have proven difficult to maintain due to steep slopes and erosive soils. Snowbasin would engage professional design and construction personnel to ensure that final alignments, trail design, construction practices, and rehabilitation practices minimize these issues. Subsequent trail management would include measures to reduce user impacts (e.g., inspections, prompt repair of damaged areas, and closure when a trail is excessively wet).

### **Upper Porky Face Access Road Rehabilitation**

The upper Porky Face access road rehabilitation project is intended to close a switchback road segment that is no longer needed. Initially constructed to provide access to the Porcupine and John Paul lifts, the Porky Face access road crosses multiple fall-line ski runs and interferes with grooming operations. The access road was constructed by excavating into the hillslope and sidecasting excavated material to create the running surface. The resulting cut and fill slopes delay opening the area for skiing early in the season or when snow cover is otherwise inadequate.

The rehabilitation project would include recontouring approximately 2,130 feet of the existing access road to match the adjacent hillslope contour and ski run fall line. The road's running surface would be decompacted, and material above and below the road would be used to re-establish the hillslope contour. The rehabilitation would involve nearly all privately owned land. If necessary, clean, weed-free fill material would be imported to augment the material recovered from above and below the road.

As part of this project, a new 1,030-foot-long road segment would be constructed along the existing sewer line corridor, connecting the Needles Restaurant access road to the Porky Face access road above the rehabilitated segment (shown on attached figure as Project 6b). The road segment would have a 12-to-16-foot width and would be constructed with necessary drainage features. This new segment would provide vehicle access to the Porcupine and John Paul lifts, replacing the rehabilitated road. Material cut for the construction of the new road segment could also be used as fill in the rehabilitated portion of the Porky Face access road.

The Upper Porky Face access road rehabilitation project would affect 4 acres, only 0.1 acres of which is NFS land. Construction of the new access road segment would affect approximately 1 acre of NFS land that was previously disturbed when the sewer line was installed. The construction and rehabilitation would result in a 1,100-foot net reduction of roads at Snowbasin.

### **Lower Penny Lane Ski Run Improvements**

The lower Penny Lane ski run improvement project is proposed to improve visibility and reduce a steep and narrow section of the Penny Lane ski run. This run is the main return path from the Strawberry area to the base area. In addition, it is one of two beginner-level ski runs that are accessed from the top of the Becker lift. In the current alignment, Penny Lane intersects the Snowshoe ski run near a sharp corner with poor visibility. Immediately downslope of the intersection, the Penny Lane ski run is narrow and steep, following the alignment of an existing service road. These features, together with the potential for high skier density when Strawberry Bowl is closed, are challenging for beginner-level skiers.

The lower Penny Lane ski run improvement project consists of reshaping Penny Lane and Snowshoe runs and the area between them for about 600 feet above their intersection to improve visibility, and recontouring the steep and narrow segment of Penny Lane below the intersection. This project would disturb approximately 3 acres, including 1 acre of NFS land.

## **ALTERNATIVES CONSIDERED BUT NOT CARRIED INTO IN-DEPTH ANALYSIS**

A scoping commenter suggested shortening the existing Strawberry Express gondola as an alternative to building the proposed Strawberry Quad lift, noting that this would resolve the weather-related issues of the ridgeline terminal and avoid the impact of a second lift.

This alternative was not carried into in-depth analysis because it would not address key needs noted in the project description above. The Strawberry Quad was proposed for multiple reasons. One reason is to provide lift service when inclement weather conditions result in closing the Strawberry Express gondola, and shortening the gondola would resolve that need. However, shortening the gondola to the elevation of the proposed quad lift would also eliminate lift access to more than 150 acres of prime high-elevation ski

terrain. The second reason for constructing the Strawberry Quad is to provide redundant uphill capacity in the Strawberry area and eliminate the need for snowcat shuttles to evacuate stranded skiers when the gondola is forced to close. That requires a second lift. In short, lowering the upper terminal of the existing gondola would not resolve the need for the Strawberry Quad.