



**USDA Forest Service
Pacific Southwest Region
Lake Tahoe Basin Management Unit**



**Decision Memo for Implementation of
Heavenly's 2011 Capital Improvement Projects
Douglas County, Nevada
El Dorado County, California**

BACKGROUND:

Heavenly's 2011 Capital Improvement projects represent the continued implementation of the Heavenly Master Plan and 2007 Master Plan Amendment (2007 MPA). The Master Plan and 2007 Master Plan Amendment provide the general framework for the development of Heavenly Mountain Resort. The 2011 Capital Improvement projects are site-specific improvements which further the goals for this resort that are in the Master Plan and 2007 MPA.

EXISTING CONDITION:

Heavenly's 2011 Capital Improvements are contained in two project areas within the Special Use Permit (SUP) boundary: (1) Top of the Gondola; and (2) Sky Express Pod.

Top of Gondola

Currently, ski school services are housed in temporary shelters (one yurt and one sprung structure). The children's ski school facility and services are in high demand at the top of the gondola. There is also a demand for children's activities at the top of the Gondola. In addition, the top station of the tubing lift is inaccessible by vehicle making maintenance difficult.

Sky Express Pod

Several locations along runs serviced by the Sky Express ski lift are not currently at the widths identified in the 2007 MPA. The quality of the skiing experience is less because of these 'pinch points'.

DESIRED CONDITION:

Top of Gondola

Given that ski school activities are in high demand at the top of the gondola, but are presently housed in two temporary structures, the desired condition is to consolidate this activity into one permanent structure in a centralized location at the top of the gondola and remove the temporary structures. The new permanent structure should be sited in a centralized location with respect to visitor use patterns associated with the beginner and lower-level ski school lifts including the relocated Magic Carpet, handle tow lift, beginner snowboard teaching lift (shared with tubing lift) and the Big Easy chairlift.

Children's activities located near the new ski school structure would also be desirable, as well as vehicle access to the top of the tubing lift for maintenance.

Sky Express Pod

The desired condition for the Sky Express Pod is to enhance the skiing experience by widening ski trails to the widths identified in the 2007 MPA.

PURPOSE AND NEED:

Heavenly's 2011 Capital Improvements are linked, both directly and indirectly, to the 2007 MPA - the purpose of which is:

“to improve the overall quality of the visitor experience at the resort, creating an improved, multi-seasonal visitor and skier/snowboarder experience that is competitive with the experience offered by other destination resorts and that reflects current market trends and preferences.”

The Purpose and Need section of the 2007 Final EIS states that: “All of the overall MPA 07 projects and those projects which are ready for immediate implementation are linked to the same purpose and need for action...”¹

Therefore, because the purpose and need of Heavenly's 2011 Capital Improvements is tied to the 2007 Final EIS (which analyzed the entire MPA 07 programmatically) this document incorporates Section 1.3 of the 2007 Final EIS by reference. A summary of the 2007 Final EIS Purpose and Need Statement is provided herewith a correlation to Heavenly's 2011 Capital Improvements.

Sky Express Pod

In implementing the 96 MP, trail capacity improvements lagged behind the improvements of lift capacity improvements thereby creating an imbalance within certain lift and trail pods, especially in the higher-volume and more popular lift and trail pods. The 2007 MPA recognized this situation. One of the solutions is to selectively widen existing trail locations where 'pinch points' exist. Selective trail widening is an effective method to increase trail capacity without constructing new trails. Trails served by the popular Sky Express and Canyon Express pods on the Upper California side of the resort were developed in the 1960s and 1970s at a time when trail design standards were much narrower than they are today. Ski industry trail design standards have grown wider over the years in response to changes in skier/ride preferences and equipment.

Improvements, in the form of selective 'pinch point elimination', will result in more desirable runs within this pod and increase return-cycle skiing and riding. This will further ease congestion elsewhere on the mountain, and improve the overall skiing experience for resort visitors.

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2011 Capital Improvement Projects Responding to These Needs

- Selective trail widening on the Upper California side trails served by Sky Express and Canyon Express lifts.

Top of the Gondola

Facilities

The 2007 MPA identified the Gondola as the predominant resort access for destination visitors. It further identified the lack of adequate skier services and activities to allow these guests to utilize the resort without using their automobiles or other means to drive from one access point to another. This is particularly the case with respect to the children's ski school facilities.

Children's ski school facility and services are in high demand at the top of the gondola. These facilities are presently housed in temporary shelters (one yurt and one sprung structure). They are undersized, have no infrastructure and do not offer the high-quality recreational experience that is the focus of the 2007 MPA. It will be sited in an area that is centrally-located with respect to visitor use patterns associated with the beginner and lower-level ski school lifts including the relocated Magic Carpet, handle tow lift, beginner snowboard teaching lift (shared with tubing lift) and the Big Easy chairlift. The existing temporary tent structures do not provide adequate shelter during periods of cold and/or inclement weather for children who are normally enrolled in all-day or half-day lesson programs.

There is a need to provide an access road to the top of the existing tubing lift in order for vehicles to access that location for maintenance of the lift.

2011 Capital Improvement Projects Responding to These Needs

- Ski School Facility Building
- Tubing Lift Access Road

Recreation Opportunities

There is currently a lack of capacity and diversity of multi-season recreation opportunities at the top of the Gondola to respond to visitors' needs and changes in the market. During 2009, the Heavenly Flyer Zipline was fully reserved or "sold out" 4-5 days in advance. The unmet demand for outdoor environment-based recreation opportunities in this setting far exceeds the current supply. Because the gondola is the predominant destination resort access point in winter and summer, a significant opportunity exists to provide a wider range of multi-season, resource-based activities for guests in addition to skiing and snowboarding.

The 2007 MPA identified the Gondola as the predominant resort access for destination visitors. It further identified the lack of a full array of services and activities to allow these guests to utilize the resort without using their automobiles or other means to drive from one access point to another.

The proposed activities at the top of the gondola including the Kids Adventure Zone will add diversity, capacity and help meet existing and future demand for resource-based skiing and non-skiing activities. The proposed facilities will provide skiing and non-skiing visitors alike with opportunities for resource-based, high-quality public outdoor recreation activities on National Forest System lands. Providing environmental education and resource interpretation in combination with the proposed activities will create a unique outdoor recreation opportunity in the Lake Tahoe Basin.

These recreational activities will encourage guests unfamiliar with the National Forest to experience the natural environment and are designed to encourage further exploration of less developed areas of the National Forest.

2011 Capital Improvement Projects Responding to These Needs

- Kid's Adventure Zone

PROPOSED ACTION:

Construction of all proposed projects will be conducted in accordance with the revised Construction Erosion Reduction Program (CERP), as outlined in the 2007 Master Plan Amendment and the 2007 Environmental Impact Statement ("EIS").

The following section describes the proposal in detail. See Appendix A for detailed maps of the project locations.

Sky Express Pod

Trail Widening

Heavenly proposes to widen the following trails in selective areas on the Upper California side in order to ease skier and rider congestion and improve the quality of the recreation experience in these popular areas. The trails will be widened to achieve an average width identified in the 2007 MPA as follows:

- Ellie's Trail (Trail I3): 120 feet
- Liz's Trail (Trail I1): 90 feet
- Upper Ridge Trail (Trail 2): 60 feet
- Canyon Trail (Trail H9): 110 feet
- Jackpot Trail (Trail H10): 100 feet
- High Roller Trail (Trail H11): 100 feet

Trail widening will consist of tree removal; over-the-snow using snowcats on a minimum of 12" of compacted snow. Once these trees have been removed, then the issue of the rocks that were pushed to the edges of the trail (during original construction in the 1970's) needs to be addressed. The most effective means of relocating the boulders is the use of an excavator with a 'thumb'. An experienced operator can walk the excavator down the edge of a trail and pluck rocks that would be an obstruction for skiers and

grooming equipment, and place them in the numerous depressions on the trail's edge. By using the excavator, the rocks can be carefully removed and placed in areas that would allow safe skiing/riding, minimizing the use of explosives to reduce the rock to smaller size.

Use of the excavator for trail widening projects will be specific to reducing hazards and eliminating 'pinch points' to make the trails more effective and to allow greater utilization – not to change or re-configure the trail network. As such, a corridor of operation will be defined and the operator will not be allowed to traverse across the trail unless tree removal took place in that area. Ground treatment will be completed on the area of travel by the excavator and will include the normal cover treatment.

One trail project will require the realignment of above ground snowmaking piping. The piping (which currently runs between Canyon and Jackpot Trails) is approximately 450' long and will be shifted to the skier's right-hand edge of the Jackpot Run. The only ground disturbance will be a 30' crossing of the existing summer road in a shallow trench to allow vehicle traffic to pass over.

In certain sections of the trails where rocks have been simply pushed to one or both sides of the trail during their original construction in order to make a narrow, ski-able surface, the rocks will be moved or capped to produce a lower profile height. No other utilities are needed.

The total cleared area will be approximately 4.16 acres. The actual area of tree removal has been flagged in the field and then surveyed by a licensed surveyor. The additional cleared area for each trail is shown below.

- Ellie's Trail (Trail I3) 1.44 acres
- Liz's Trail (Trail I1): 0.47 acres
- Upper Ridge Trail (Trail 2): 0.29 acres
- Canyon/High Roller (Trails H9 and H10): 1.98 acres

Specific construction-related CERP design features include:

- Avoidance of sensitive plants, including Tahoe Draba
- Installation of temporary water quality Best Management Practices (BMPs) at yarding area
- Limit tree removal to minimum amount necessary, including white bark pine where present
- Over-the-snow tree removal and yarding, over a minimum 12" compacted snow
- Leave low-lying vegetation undisturbed
- Relocate or cap boulders, do not remove
- Re-establishment of vegetation and soil function capacities at staging area following project completion
- Dust control measures

- Require the use of US EPA Tier2/Tier 3 level engines and power units to minimize emissions

Botanical surveys have been conducted consistent with Forest Service protocols in order to identify the presence/absence of Tahoe Draba and other sensitive plants. No Tahoe Draba or other sensitive plants were detected. All tree removal is planned to be conducted over the snow in the early spring following the close of operations. The removed trees will be skidded over a minimum of 12" of compacted snow behind a snow cat to a staging area near the base of Sky Express chair lift in order to prevent soil disturbance. Removed trees will be limbed and chipped at the staging area for use for erosion control and soil amendments.

Refer to Table 3-3 in the 2007 MPA which includes the trail widening for the trails listed above. Adjustments to tree removal were made in the field to better suit the actual topography, and other small-scale variations. The trails are all located within the Tahoe Region and subject to permitting through the TRPA. No land coverage or other permanent disturbance is required to implement the trail widening projects.

Top of the Gondola

Kids Adventure Zone at Adventure Peak

Based on its forested characteristics and location near the top of the Gondola, the Discovery Forest area is an ideal location for a Kids Adventure Zone during the winter season. The Kids Adventure Zone is a resource-based experience for children of all ages to explore the natural landscape while on skis and snowboards. It will offer opportunities to learn about the forest and its inhabitants.

It will be located at Adventure Peak on an under-utilized gladed trail between the existing Big Easy trail and the relocated Adventure Peak Ski School Magic Carpet (approximately 20 feet wide by 515 feet long). It will incorporate natural features such as big trees, log ramps, groomed whoop-de-doo's, and wood carvings of local forest animals. It will use themed interpretive signage to teach kids about our forest. The Kids Adventure Zone is intended to be a self-guided experience; however, ski school coaches will be able to act as guides in order to enhance their students' experience by drawing on their knowledge of the Tahoe Basin.

Entry and exit gates would be placed as permanent features made primarily from natural materials. The entry and exit gates will be designed and constructed using forms, colors and materials that are similar to the existing on-mountain way-finding signage. Logs and lean-to's to ski over and around, wood carvings of the forest wildlife and signage would be used over the snow, but would not be placed permanently in this area.

Temporary groomed snow features that add an element of fun will be incorporated into the activity. An estimated 40-50 small-diameter trees (≤ 12 " dbh) will be removed in order to provide for optimal flow of routes through the area and allow sufficient width for snow cats to groom the routes on a regular basis. The total disturbed area for the Kid's Adventure Zone is approximately .25 acres.

Replace Existing Yurt and Sprung Structure at the Top of the Gondola with a Permanent Facility

The existing ski school facilities at the top of the gondola are located in temporary structures with limited amenities and services. They do not provide the level of services or quality of recreational experience that is needed at this location. In order to improve this situation, Heavenly proposes to build a permanent ski school facility near the site of the existing temporary structures and remove the temporary structures. The facility will be a smaller-scaled version of the new Tamarack Lodge and incorporate the same architectural form, colors and materials. It will be 2,500 – 3,000 square feet in area and have a maximum height of approximately 25-30 feet. It will be consistent with the applicable sections of the Forest Service Built Environment Image Guide and the TRPA design standards and guidelines. It will use the same utility connections that are already in place for the temporary structures and add natural gas service for building heating.

The will include a large, multi-purpose room for ski school functions including, check-in, class orientations, restrooms, and a lunch room. Food service will be provided from a kitchen located separately from the ski school structure but in close proximity. There is a need for a facility that is separate from the Tamarack Lodge due to the specific nature of children's ski school functions and procedures. Tamarack Lodge is used solely as a food and beverage facility and is not sized in order to handle peak lunchtime demand and also accommodate children's ski school program needs.

The activity is located within the Tahoe Region and subject to permitting through the TRPA. Land coverage for the facility will be utilized from banked land coverage that TRPA has previously verified as legally removed. The total disturbed area for the Kid's Ski School is approximately 0.20 acres.

Tubing Lift Access Road

An access road to the top of the tubing lift would be constructed from the mid station access road. The road would be approximately 475 feet in length by 10 feet wide and would include appropriate drainage structures. The total disturbed area is approximately 0.11 acres.

Specific construction-related CERP design features include:

- Avoidance of sensitive plants
- Installation of temporary water quality Best Management Practices (BMPs)
- Avoid placing fill in or disturbing ephemeral and intermittent water courses
- Limited disturbance and construction staging areas
- Limit tree removal to minimum amount necessary, including white bark pine where present
- Over-the-snow tree removal and yarding, minimum 12" compacted snow

- Leave low-lying vegetation undisturbed
- Proper backfilling and compaction of all excavations
- Implementation of site-specific revegetation, soil erosion and sedimentation plans and specifications prepared by Michael Hogan
- Incorporation of organic material into soil amendments to promote soil infiltration and plant establishment
- Specific pre-construction and post-construction monitoring evaluations of disturbed areas and success of revegetation
- Implementation of permanent water quality BMPs following project construction
- Multi-year, post-construction monitoring and reporting as required by the Forest Service BMP Effectiveness Protocol Program
- Re-establishment of vegetation and soil function capacities at staging areas following project completion
- Dust control measures
- Require the use of US EPA Tier2/Tier 3 level engines and power units to minimize emissions

PROJECT DESIGN FEATURES:

Project design features are elements of the project that are applied to the project area as part of the Proposed Action. These features are developed based on Forest Plan direction and site specific evaluations in order to reduce or avoid negative environmental impacts of the proposed action. Project design features associated with this project are listed in Appendix B.

REASONS FOR CATEGORICALLY EXCLUDING THE PROPOSED ACTION:

CEQ regulations allow federal agencies to exclude from documentation in an environmental assessment (EA) or environmental impact statement (EIS) categories of actions that do not individually or cumulatively have a significant effect on the human environment, based on the agency's experience and knowledge. The proposed action fits under 36 CFR 220.6 (e)(3), "Approval, modification, or continuation of minor special uses of NFS lands that require less than five contiguous acres of land."

These activities fit within this category because the activities are located within the special use permit area for Heavenly Mountain Resort and are under 5 acres in total.

EXTRAORDINARY CIRCUMSTANCES:

The mere presence of one or more of these resource conditions does not preclude use of a categorical exclusion (CE). It is the existence of a cause-effect relationship between a proposed action and the potential effect on these resource conditions and if such a relationship exists, the degree of the potential effect of a proposed action on these resource conditions that determine whether extraordinary circumstances exist. (36 CFR 220.6(b))

1. Federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species –

The potential effects of this decision on listed wildlife, fish, and plant species have been analyzed and documented in a Biological Assessment (BA) and Biological Evaluation (BE), Project Record Documents A1 and A2.

Wildlife and Fish

No effects to threatened or endangered species, designated critical habitat, species proposed for Federal listing or proposed critical habitat will occur as these species and their suitable habitats do not occur in or adjacent to the project area. Forest Service sensitive wildlife species (e.g., bald eagle, California spotted owl, northern goshawk and American marten.) occur, or may occur, in the project area as described in the BA/BE (Project Record Document A1). Project Design Features, described in this memo, are intended to minimize potential effects to sensitive species.

Botany

This project may affect individuals, but is not likely to result in a trend toward Federal listing or loss of viability for *Arabis rigidissima* var. *demota* (Galena Creek rock cress), *Draba asterophora* var. *asterophora* (Tahoe draba); *Erigeron miser* (starved daisy), *Eriogonum umbellatum* var. *torreyanum* (Torrey's buckwheat), or *Hulsea brevifolia* (short-leaved Hulsea); because of the presence of suitable habitat for the above mentioned species, it is possible that isolated species may occur within the project and undiscovered individuals may be inadvertently affected. There will be no effect to any other threatened or endangered species, designated critical habitat, species proposed for Federal listing, proposed critical habitat, or sensitive plant species because there is no suitable habitat for these species in the project area (Project Record Document A2).

2. Flood plains, wetlands, or municipal watersheds – There are no floodplains, wetlands or municipal watersheds located within the project area.
3. Congressionally designated areas, such as wilderness, wilderness study areas, or national recreation areas – There are no congressionally designated areas, such as wilderness, wilderness study areas or national recreation areas located within the project area.
4. Inventoried roadless areas or potential wilderness areas – There are no inventoried roadless areas or potential wilderness areas located within the project area.
5. Research Natural Areas – There are no research natural areas located within the project area.
6. American Indians and Alaska Native religious or cultural sites – There will be no effect to American Indian religious or cultural sites. (R2011051900047). Alaskan sites do not apply to the California region.
7. Archaeological sites, or historic properties or areas – There will be no effect to archaeological sites or historic properties or areas. (R2011051900047).

FINDINGS REQUIRED BY OTHER LAWS:

The proposed action is consistent with direction provided by the Lake Tahoe Basin Management Unit Forest Plan (Project Record Document A4), as required by the National Forest Management Act of 1976. The project is located in the Heavenly Valley Management Area and is within the area guided by Management Prescription #2 – Alpine Skiing. The project's potential effect on Management Indicator Species (MIS) has been analyzed; this project will not affect MIS (Project Record Document A5).

The activity is consistent with existing uses and complies with the Endangered Species Act, Migratory Bird Treaty Act, Clean Water Act, and the Historical Preservation Act of 1966.

PUBLIC INVOLVEMENT:

Scoping for these projects included:

1. Listing the projects on the LTBMU SOPA on April 1, 2011.
2. A press release was sent out to local news outlets on April 15, 2011 and posted to the LTBMU website.
3. An article in the Tahoe Daily Tribune was published on April 18, 2011.
4. The proposed action document and maps were posted on the LTBMU website at: <http://www.fs.usda.gov/goto/ltbmu/Heavenly2011>

From scoping, comments were received from 9 individuals and organizations. The following paragraphs summarize these comments and the Forest Service (FS) responses:

Comment: Tree removal between Lower Jackpot and Canyon Runs is being proposed not to reduce congestion but to facilitate the expansion of the High Roller Park. This will lead to more congestion and fewer options for the general users of the mountain as only a small percentage use the parks.

FS Response: Congestion will be eased in this pod due to the elimination of 'pinch points' on Lower Jackpot and other runs accessed by the Sky Express chairlift. With widened runs, there is more of an opportunity for a ski through option should the High Roller Park remain in its current location.

Comment: Congestion will not be eased as skier/boarder speeds will increase and result in more collisions and injuries.

FS Response: By eliminating 'pinch points', skiers and snowboarders are provided greater separation. This provides better opportunity for skiers and snowboarders of varying abilities to safely maneuver.

Comment: What is the evidence indicating the need to widen these trails?

FS Response: The need to widen trails is based on both Heavenly and Forest Service observations. These observations were included in the 2007 MPA FEIS and identified as a potential 2007 MPA Phase II project. From the FEIS:

“High-speed detachable ski lift equipment delivers skiers and snowboards on to slopes at a higher hourly rate than fixed grip ski lift equipment, resulting in higher user densities on some ski trails. This is noticeable on many ski trails with narrow or steep sections and those with uneven widths that create a funnel effect. This primarily occurs on the upper California and upper Nevada sides of the resort. Skier and snowboarder congestion occurs in these narrow areas. (2007 MPA, FEIS P. 1-6).

REGULATORY AGENCY INVOLVEMENT/PERMITS:

Tahoe Regional Planning Agency – Permits are required through the TRPA for project activities. At this time a TRPA permit has been issued for tree removal for trail widening and snowmaking pipe realignment (File Number ERSP2011-0579). Any additional terms and conditions required by this permit will be followed. A TRPA permit for the remaining activities is required and has been applied for by Heavenly Mountain Resort. Lahontan Regional Water Quality Control Board – Lahontan staff has confirmed that no additional permits are required because the projects in California total less than an acre of ground disturbance and Lahontan recognizes that TRPA is issuing permits.

IMPLEMENTATION DATE:

Implementation of this project will begin immediately.

ADMINISTRATIVE REVIEW OR APPEAL OPPORTUNITIES:

This decision is not subject to appeal pursuant to 36 CFR 215.12(f) as it is a decision which has been categorically excluded from documentation in an EA or EIS.

Heavenly Mountain Resort is hereby notified of their right to appeal this decision in accordance with 36 CFR 251, Subpart C. Appellants must meet the requirements described under 36 CFR 251.86.

CONTACT PERSON:

Jonathan Cook-Fisher, Special Uses Program Manager
Lake Tahoe Basin Management Unit
35 College Drive
South Lake Tahoe, CA 96150
(530) 543-2741

SIGNATURE AND DATE:

I have decided to implement the proposed action. I have concluded that this decision may be categorically excluded from documentation in an environmental impact statement or environmental assessment as it is within one of the categories identified by the U.S. Department of Agriculture in 7 CFR part 1b.3 or one of the categories listed in sections 220.6 (d) and (e) of 36 CFR 220.6. My decision concludes that no extraordinary circumstances exist related to the proposed action that may result in a significant individual or cumulative effect on the human environment, and that the decision is not subject to appeal.

My conclusion is based on information presented in this document, my familiarity with the project areas and the entirety of the project file. I also based by conclusion on a review of the project record that shows a thorough review of relevant scientific information.



NANCY GIBSON

Forest Supervisor, Lake Tahoe Basin Management Unit



Date

APPENDIX A – Maps

APPENDIX B – Project Design Features

SG. 5-13-11

Appendix B – Project Design Features and Best Management Practices – Heavenly Mountain Resort 2011 Projects

Cultural Resources
Any previously unidentified archaeological remains discovered or exposed during project implementation will be afforded full protection, including stopping work and roping off the area. Upon discovery of previously unidentified archaeological remains, the Forest Service will be immediately notified. Work will not proceed until authorized to proceed by the authorized officer.
The protection areas will be clearly marked as generic “sensitive zones” on all project maps, which will be approved by the LTBMU Heritage Resource Program Manager. Heritage resource locations will remain confidential.
Scenic Resources
Any site grading related to the Ski School Building and summer access roads will blend disturbance into the existing topography to achieve a natural appearance and minimize cuts and fills at the transition with grading and existing terrain.
The Ski School Building will minimize reflectivity by using materials and colors that meet reflectivity standards. Any exterior galvanized metal or other reflective surfaces on the building will be treated or painted dark non-reflective colors that blend with the forest background to meet an average neutral value of 4.5 or less as measured on the Munsell neutral scale.
The Ski School Building will meet color guidelines. Bright colors are inappropriate for the forest setting. The colors will be muted, subdued colors because they blend well with the natural color scheme.
Wildlife
Prior to any projects, implement Mitigation Measure (HMPA FEIS 2007) BIO-2 Active Raptor and Migratory Bird Nest Site Protection Program. BIO-2 states: Pre-implementation/construction surveys, conducted during the nesting season immediately prior to project implementation, shall be conducted to identify any active raptor or migratory bird nest sites within the project. The biological monitor will have the authority to stop implementation near occupied trees if it appears to be having a negative impact on nesting raptors or migratory birds or their young observed within the construction setbacks of the project area. If construction is stopped in areas surrounding occupied nest trees, the monitor must consult with, Forest Service staff within 24 hours to determine appropriate actions to continue construction while reducing impacts to identified raptors or migratory birds.
Refuse containers near the Ski School Building shall be designed to be wildlife proof to prevent access by wildlife species. Refuse containers will be emptied on a regular basis when being used by the workers or visitors.
At this time none of the proposed actions are located inside or within 0.25 mile of a Protected Activity Center (PAC). Annual California spotted owl and northern goshawk surveys will continue to be performed throughout the Heavenly SUP area in accordance with the accepted protocol and the Sierra Nevada Forest Plan Amendment Record of Decision (SNFPA ROD, January 2004). If either species are detected within the project area and determined to be nesting, a Protected Activity Center (PAC) will be delineated in accordance with the SNFPA ROD. If a PAC is delineated with 0.25 mile of a project area prior to construction, a Limited Operating Period would be implemented which would limit construction activities and vegetation treatments during the breeding season (March 1 through August 31 for California spotted owl) and (February 15 through September 15 for northern goshawk). The LOP may be waived if surveys confirm nesting is not occurring or if the activity is of such scale and duration that impacts to breeding California spotted owls or northern goshawks will not occur.

Appendix B – Project Design Features and Best Management Practices – Heavenly Mountain Resort 2011 Projects

Vegetation Resources
Prior to construction of the Ski School Building, the disturbance limits of the project site will be identified. Pop fencing, flagging, or a staked rope line will be established to denote the limits of construction proximate to sensitive resource boundaries.
Tree removal related to run widening in the Sky Express Pod will be conducted over-the-snow. Stumps will be flush-cut once snow has melted.
If removal of cut trees is required after snow has melted, known populations of Tahoe draba along Skyline Trail and Upper-Ridge Trail will be flagged prior to removal of cut trees. A Forest Service Botanist/Ecologist will either 1) flag the population's extent or 2) will approve flagged extent and will verify the flagged extent during and after removal of cut trees. Construction activities (i.e. log decking, staging or storage) shall be at least 100 feet away from the identified extent of Tahoe draba located along Skyline Trail and Upper-Ridge Trail.
Fences and blasting operations near existing Tahoe draba populations in the Sky Express pod shall be monitored for the duration of the construction season by a consulting resource specialist,, Heavenly staff, and/or botanists to ensure blasting operations are not resulting in material entering the 100 foot buffer.
Areas disturbed during project construction or implementation, excluding the Ski School Building site or new road surfaces, will be revegetated after the site has been satisfactorily prepared. Areas that would be revegetated include: Disturbed areas adjacent the Ski School structure and access road; Access road to the top of the tubing lift; and Areas that experience ground disturbance during tree removal for ski trail widening that occur outside of Tahoe draba habitat. Seeding will be repeated until satisfactory revegetation is accomplished according to Forest Service Specialists. Revegetation will be accomplished with Forest Service approved plants and seed mixtures.
Upon completion of ground disturbing activities a minimum of 2 inches of mulch will be applied (2007 EIR/EIS/EIS Appendix 2-B, pg. 24). This applies to the following locations: Disturbed areas adjacent the Ski School structure and access road; Access road to the top of the tubing lift; and Within widened ski trails (ground disturbed areas only) in the Sky Express pod (with the exception of Tahoe draba habitat as noted above).
Trail widening proposed in Tahoe draba habitat shall not include the scattering of chipped woody debris material. Wood debris and other vegetative material shall be scattered and not chipped in order to protect the existing suitable Tahoe draba (<i>Draba asterophera</i> var. <i>asterophera</i>) habitat.
All gravel, fill, mulches or other materials used for implementation will be weed free. Use onsite sand, gravel, rock or organic matter where possible. Otherwise, obtain materials from gravel pits and fill sources that have been determined to be weed-free by the Forest Service Botanist or Ecologist.
All runs widened will be constructed by "flush cutting" removed trees to a height of approximately 6 inches or less from the ground surface. This trail preparation method avoids the need to disturb the remaining stumps and/or surrounding soils, thereby minimizing overall ground disturbance and existing vegetation.
Understory vegetation will be retained during ski trail widening to the extent possible by removing felled trees and minimizing construction traffic in all areas designated for flush cutting and/or overstory vegetation removal.
Prior to removal of trees from the Sky Express pod, decking areas and removal routes will be identified in the field and approved by the Forest Service.

Appendix B – Project Design Features and Best Management Practices – Heavenly Mountain Resort 2011 Projects

<p>Topsoil replacement, seeding, and weed-free mulching (as necessary) will be used to stabilize disturbed soils in: Disturbed areas adjacent the Ski School structure and access road; Access road to the top of the tubing lift; and Within widened ski trails in the Sky Express pod, only where grading and soil disturbance occur to promote native plant re-establishment.</p>
<p>Equipment will be washed prior to entering NFS lands, or coming from an area known to contain non-native invasive species. This includes construction personnel vehicles in addition to trucks and other heavy equipment, excluding snow cats.</p>
<p>Monitor construction areas and areas disturbed by this project for noxious weeds and treat any noxious weeds found.</p>
<p>Flowering stems of the tall whitetop occurrence (0519169) that is approximately 220' from the project area will be removed during those field seasons that include project implementation (see project noxious weed risk assessment, page 11 for map of this occurrence).</p>
<p>Soils & Watershed</p>
<p>All project activities will be conducted in accordance with Heavenly's Revised Construction Erosion Reduction Program (MPA 07 Appendix 2B).</p>
<p>Tree-removal for ski trail widening will occur entirely over snow. A 24 inch minimum snow depth is required.</p>
<p>Staging areas for construction materials and equipment, and decking areas, shall be restricted to paved surfaces, areas adjacent to the building site and previously disturbed areas and shall be fitted with temporary BMPs, including construction limit fencing, sediment fencing, corelogs, woodchips, as needed to prevent erosion or sediment transportation . Temporary staging and storage areas not located on paved surfaces shall be identified on the site through use of vegetation protection fencing and erosion control fencing where appropriate.</p>
<p>Existing, native ground cover located within the widened ski trails will be retained to minimize erosion.</p>
<p>Existing roads will be used for construction and routine maintenance of any approved project components.</p>
<p>Surface netting or similar technique would be used in conjunction with mulching will be used to reduce the erosion hazard in areas where slope or other characteristic makes the location highly susceptible to erosion during the revegetation process.</p>
<p>In all areas where approved grading or soil disturbance will occur, topsoil (when present) will be separated, stockpiled and re-spread following slope grading and prior to re-seeding.</p>
<p>Initiating new soil-disturbing activities will not take place during periods of forecasted heavy rain greater than or equal to 1 inch in 24 hours rain event, or prolonged periods or rain over a 48 hour period exceeding a total of 2.5 inches) as well as implementation monitoring of temporary BMPs to ensure they have been maintained.</p>
<p>Areas determined by the Forest Service hydrologist or soil scientist to have been compacted by construction activities may require mechanical sub-soiling, scarification, or similar technique to the compacted depth to reduce bulk density and restore porosity.</p>
<p>Air Quality</p>
<p>Areas approved for ground disturbance and construction access roads will be watered as necessary and practical to prevent excessive amounts of dust.</p>

Appendix B – Project Design Features and Best Management Practices – Heavenly Mountain Resort 2011 Projects

Recreation
During hazardous activities such as blasting and during construction, areas will be closed to visitors. Appropriate signage and staff would be provided, to direct visitors during the closures.
Prior to construction “Construction Zone” signage would be posted so that they are visible to visitors using the area for recreation.
During construction near the top terminal of the Gondola (the Ski School Building and access road, and access road to the top of the tubing lift), staff would be provided to direct visitor use away from construction.
If over snow tree removal occurs during the ski season, the Sky Express pod and adjacent ski trails will be closed to public entry until tree removal activities have been suspended or are completed.