

## Snowmaking/Utilities Installation

Another component of this construction plan is the installation of snowmaking water supply pipe, associated power supply infrastructure, snowmaking hydrants/pits/power pedestals, and power system transformers. The snowmaking pipe and power supply lines will be buried together wherever they coincide and will follow previously disturbed ground such as roads and trails wherever possible. The installation of the snowmaking/utilities infrastructure will occur in one (1) phase. The construction of snowmaking infrastructure will result in approximately 32.5 acres of additional snowmaking coverage. Approximately 20.4 acres of snowmaking coverage will occur on private lands with the remaining 12.1 acres occurring on Forest Service land. Please refer to Figure 1.3 for additional information on snowmaking systems.

There is approximately 13,785 feet of snowmaking pipe, which will be buried together with power supply lines. Approximately 4,951 feet of the co-buried snowmaking pipe and power will be installed on Forest Service land. In addition there are 2,125 feet of additional primary power being installed during construction with approximately 1,375 feet of the 2,125 feet being installed on Forest Service land. There will also be 53 snowmaking hydrants/pits being installed, with 21 of the 53 snowmaking hydrants/pits being installed on Forest Service Land. A depiction of the typical installation trench for the water pipe and power supply can be seen in Figure 1.4 and a depiction of the typical installation of the snowmaking hydrant/pit can be seen in Figure 1.5 and 1.6. There are also approximately 5 transformers being installed of which 3 will be located on Forest Service land.

The installation of snowmaking pipe and associated infrastructure will almost entirely occur on previously cleared ground such as existing permanent roads or existing and newly constructed ski trails. As stated previously in the guidelines for trail construction based on the "USFS Best Management Practices" "Whenever possible ski run construction will precede the location of utility pipelines in order to avoid multiple disturbances/entries." The Forest Service will be notified prior to construction so they can monitor the trenching for cultural impacts. Actual line locations will be verified and staked prior to construction.

Please refer to Figure 1.3 for information and location of new snowmaking lines.

## Additional Parking

The final component of this construction plan is the additional parking that has been approved for employees near the existing maintenance shop. This additional parking will assist in alleviating pressures on the other parking facilities located at Brian Head Resort. The approximate area of the parking lot is 1.1 acres and is to be constructed in an area considered previously disturbed. Construction occurs in land that is generally clear of trees and will require only 15 – 25 trees to be removed. This area approved for additional parking lies entirely on Forest Service land.

Please refer to Figure 1.3 for information and location of the additional parking.

**Environmental Assessment:  
Brian Head Resort Master Development Plan  
Amendment**

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# Brian Head 2, 2b

Environmental Assessment: Brian Head Resort Master Development Plan Amendment

Meadow, as noted below. Table 3-1 identifies the elements and the level of disturbance they would generate. Figure 4 shows the location of these elements.

	Acres on Public	Acres on Private	Type of Impact
Lifts	1	0.3	Excavation/grading at terminals and tower bases.
Ski Trails—Clearing	13	49	Tree removal from trail corridors.
Ski Trails—Stumping	43	59	Removal of above-ground stumps, no soil disturbance.
Ski Trails—Grading	0	5	Limited grading on private-land ski trails to reduce hazards and improve circulation.
Access Roads	1.2	3	Road construction.
Buildings/Parking Lots	0.02	3	Excavation/grading associated with construction.

## Water Quantity

Construction of the proposed lifts would require ground disturbance to install the towers and terminals. Disturbance associated with the towers would be small, on the order of 100 square feet per tower. The terminals would require a larger disturbance area, up to 0.2 acres each depending on design requirements. The disturbance for the surface lift would be less. Surface runoff and erosion would increase on the disturbed areas during snowmelt and heavy precipitation events until vegetation becomes established. However, water yields on a larger scale are unlikely to change because live-tree clearing would not be required to install these lifts. The exception to this is the lower part of the Pioneer Cabin lift that would traverse mixed conifer forest, where a corridor approximately 2,400 feet long would be cleared. Implementation of mitigation measures for hydrology detailed in Appendix C of this document would minimize surface runoff and associated problems.

Ski trail construction in the Pioneer Cabin expansion area would require a reduced level of tree clearing since much of the area is already cleared due to the spruce beetle epidemic and salvage logging. Above-ground stumps would be removed from the ski trails using either a stump grinder mounted on a skidder or by flush cutting where the terrain is too steep for the equipment to operate. Either method would not result in ground disturbance. Grading would occur on approximately 5 acres of ski trails on private land to address terrain features that could interfere with the use of the trail by the intended skier ability level. Spruce beetle mortality in this area has already reduced the transpiration in the watershed, resulting in increased water yield. Although runoff could increase in disturbed areas prior to vegetation becoming reestablished, the overall water yield would not be expected to increase as a result of the trail construction since most of the spruce are already dead or removed. The exception to this would be the construction of ski trails below Munos Meadow in the mixed conifer forest. Because these trails would require tree clearing, water yield could increase.

Construction of the Pioneer Cabin parking lot, skier facilities building, and access road would increase the amount of impervious surface by approximately 3 acres. This would increase surface runoff during snowmelt or precipitation events. These facilities would be located above the stream system in Pioneer Cabin Meadow