



The analysis of existing ski terrain highlighted a surplus of novice terrain with a commensurate deficiency in beginner and low intermediate ski terrain. The shortage of beginner/teaching terrain has been addressed in the upgrading plan by proposing to re-grade the teaching terrain at the base of the mountain. Additionally, it is proposed to develop a new teaching pod with its own lift that will improve the experience for entry-level skiers. This is recognized as the need for appropriately sized facilities to deal with the growing new skier/rider market.

In the *Final Environmental Impact Statement (FEIS)*, Steamboat Ski Area Expansion, March 1996, the United States Forest Service approved the addition of two lifts and associated trails within the Pioneer Ridge expansion area. Phase I of that expansion was implemented. Phase II of that approval is being carried forward in this Master Plan Amendment.

This Master Plan Amendment proposes that Steamboat's snowmaking system provide coverage for approximately 528 acres of alpine terrain, including 438 acres of existing coverage, 41 acres out of the 71 acres of coverage that was anticipated in the 1996 expansion approval for Pioneer Ridge, and 49 acres of new coverage. This qualitative expansion of Steamboat's snowmaking system is expected improve snow conditions on high traffic areas, critical early season connections and areas with adverse wind or sun exposure.

The philosophy which will guide expansion of on-mountain food and beverage facilities is that the guest now prefers the more intimate Four Points type experience to the large mountain lodge. Therefore, the plan proposes a modest expansion to Four Points Hut and one new Four Points Hut-type restaurant at the top of Sunshine bowl. The Four Points Hut would be expanded by 30 seats. The Cyclone Flats facility would be a scaled down version of the facility accepted in the 1993 Steamboat Master Plan. The proposed facility at the top of the Sunshine Lift would be similar to the Four Points Hut with 60 seats. In addition, a 100 seat Sprung or temporary structure is proposed for the bottom of the Bashor Terrain Park until a permanent Pavillion/restaurant can be constructed. This would be utilized for peak period relocation of the second floor Thunderhead ski school lunch kids, freeing up that space for 3rd floor overflow, as well as to service the terrain park and the new ski school pod in Giggle Gulch.

Day skier parking is provided by SSRC in the remote Meadows Lot with shuttle service to the Gondola Transit Center. Additional skier parking is provided within walking distance in Lot 2, the Knoll Lot on the southwest side of the Gondola Square, and the two close-in parking



Snowmaking Coverage Discussion

The major emphasis of the snowmaking upgrading program is to guarantee a quality snow surface for the guest at the Steamboat Ski Resort. The proposed upgraded system is intended to ensure quality early season snow conditions and coverage of connector ski trails. It is also intended to provide acceptable snow conditions on areas of the trail network that receive high skier use and areas of high snow pack erosion due to sun or wind exposure or abnormal subsurface trail conditions. Additionally, snowmaking would allow SSRC to provide their guests with a consistent surface on days without new snow.

Lower Rainbow, Upper High Noon, and Upper Tomahawk are all included in the upgrade plan because they experience high traffic and are difficult to open in the early season with natural snow. Due to sub surface conditions, Upper Tomahawk is the last part of the entire Sunshine Bowl ready to open. It is important to note that until Upper Tomahawk is ready, the rest of the pod cannot open.

Tomahawk Cutoff is included in the snowmaking upgrade plan for the same reason as Upper Tomahawk: it is the early season access to the Sunshine pod. Additionally, it would become the main lower intermediate, beginner access route into the Sunshine pod.

As previously discussed, the Pioneer Ridge Trails are underutilized on most days that do not have new snow. The snow levels are inconsistent and the trails are unable to be groomed. The Pioneer Ridge Trails proposed for snowmaking, Longhorn and Middle Rib, are the trails with the most potential to allow for regular grooming. The Crux is an extremely constrained area that is a collector for many of the Pioneer Ridge Trails. The ground surface of the Crux is very irregular. If the snow conditions on the Crux make it un-skiable than much of Pioneer Ridge must remained closed. Chaps and WJW complete the connections with the adjoining trail systems and the base of Pioneer Ridge.

Snowmaking at Steamboat covers approximately 373 acres of terrain directly with an additional 65 acres covered by stretching hoses and pushing snow with cats for a total of 438 acres. Trails previously approved for snowmaking within this upgraded plan would add coverage to 41 acres of the 71 approved for Pioneer Ridge. Further coverage of 49 acres is proposed as part of this Updated Master Plan for an increase of 90 acres, making the total coverage of 528 acres.



In recent past, Steamboat has used approximately 100 million gallons of water (306 acre-feet) or less per season over the last 5 seasons to cover its snowmaking terrain. This amount has actually diminished from historical usage due to improved equipment which uses less water and techniques such as using the snowmaking system to add a small amount of moisture to the natural snow pack. *The Final Report on the Colorado Ski Country USA Water Management Research Project* (February 1986) by Wright Water Engineers indicates that 22 percent of this figure (67.3 acre feet) is considered consumptive use, while 78 percent (238.7 acre feet) ultimately returns to the Yampa River Basin.

Snowmaking water is withdrawn from the Yampa River in the vicinity of Casey's Pond. SSRC holds water rights on the Yampa River that allow for a maximum instantaneous withdrawal rate of 16 cubic feet per second; there is not a maximum acre foot limitation on these rights. In addition, SSRC holds a 30 year lease on 125 acre feet at the Yamcola Reservoir.

The proposed 90 acre snowmaking upgrade would result in a need for approximately 20.5 million additional gallons of water (63 acre feet) for snowmaking per season. Per the above discussion, Steamboat currently has adequate water rights and water delivery systems in place for the proposed upgrades without the need of increasing the approved instantaneous withdrawal rate from the Yampa River.

The proposed upgrades may lengthen the snowmaking season marginally, but could be offset by an anticipated decrease in the amount of snow required to prepare the beginner terrain at the base. By implementing the proposed re-grade of the base area beginner terrain, SSRC should save up to 1.5-2.5 million gallons of snowmaking water. While the base area beginner area is critical to the resort's opening in the early season, it is the most difficult area to make snow. This is due to elevation related higher temperatures in that area. With the re-grade, much of that effort and time can be redirected to the higher elevations, where temperatures are colder.

With the anticipated savings of up to 2.5 million gallons (7.7 acre feet) of water at the base, and that needed for the upgrade, Steamboat would utilize approximately 120.5 million gallons of water (370 acre feet). As discussed earlier, approximately 78 percent of this water, 288.6 acre feet, would ultimately return to the Yampa River Basin and 22 percent, 81.4 acre feet, would be considered consumptive use.