

MISSION RIDGE SKI AREA

SNOWMAKING OPERATIONS

BACKGROUND

Mission Ridge Ski Area is centrally located on the eastern slopes of the Cascade Range and is known throughout the Northwest for abundant sunshine and cold dry snow. Mission Ridge receives less snowfall than resorts located on the Cascade crest or west of the crest. While total snowfall is lower and more inconsistent than competitors, Mission Ridge does have favorable climatic and weather conditions for snowmaking production.

Snowmaking operations have occurred at Mission Ridge Ski Area since 1978 when an air / water system was installed following the drought year of 1976 – 1977. There are approximately 35 acres of trails that have snowmaking coverage. The present system covers the lower mountain trails from the 5,200 ft. elevation to the base area at 4,500 ft.


In order to stabilize the business early season (prior to the 1st of December), Mission Ridge has planned an expanded snowmaking system that will increase the acres of trail coverage and guarantee opening for skiing by late November. Although an expensive capital investment, an expanded system is required to assure that the ski area remains viable in the future. Without such a system and the flexibility to maximize production periods, Mission Ridge will cease to exist long-term.

SNOWMAKING SYSTEM UPGRADE

Mission Ridge plans to install and operate a state of the art snowmaking system that maximizes the weather conditions and provides a reliable opening date for ski operations. The plan calls for two snowmaking ski trails off each of the existing lifts covering approximately 140 acres. This system would consist of three phases that would be implemented over time as dictated by business levels.

Phase I

Phase I would be implemented immediately. Included in the phase would be the construction of a water storage reservoir, the infrastructure to fill the reservoir and the production of snow on a top to bottom ski trail. The use of state-of-the-art technology would be used on this and additional phases. Approximately 38 additional acres of snowmaking trail would be added to the system in this phase. Phase I trail would tie into the existing trail system at Midway. More efficient air/water tower guns would be added to the existing air / water system on the lower slopes. Approximately 60 Acres



Phase II

Phase II is an extension to Phase I with the addition of two ski trails; Bomber Bowl off Chair #2 and Skookum off Chair #3. Phase II would use the same water storage reservoir and would become the secondary trails to cover after a top of the mountain to the base area trail. Fan guns are planned for this phase. Approximately 53 Acres

Phase III

Phase III would complete the two trail system off each lift with the addition of Tillikum trail off Chair #3, Top of extended Chair #3 and the road to Middle Tumwater. Phase III will also connect Chair #4 to the rest of the mountain with coverage on the Road to Chair #4, Upper Sitkum and Elip. This Phase will also tie into the existing system on Chair #4. Phase III would use the same water storage reservoir and would become the third priority trails to cover after Phase II & I are complete. Fan guns are planned for this phase. Approximately 25 Acres

TECHNOLOGY

The planned system and equipment is used throughout the ski industry in the United States and Canada as well as worldwide. While snowmaking technology will evolve over time with improved efficiencies, production capacity and operational costs, the same principles will apply to making natural snow. Until such time that the laws of physics are challenged, snowmaking will continue to be a process of taking water and freezing it in a form that creates snow crystals, that are groomed into a snow surface.

Of the known technologies today, one requires specific weather conditions in order to convert water into snow. Other technology is one of creating a controlled environment in which water can be converted to snow. Both technologies require the same infrastructure to support the process. Underground infrastructure is installed using existing ski trails and clearings as a path.

Snowmaking technology may reach efficiency and expanded temperature and weather conditions in which production can take place. Even with advances in technology, man and equipment cannot keep the snow from melting above freezing. Water and energy will remain the required resources to any production process.

Snowmaking operations will remain a balance of maximizing the system's infrastructure and water capacity during sustainable cold temperatures. These limits will have the greatest influence on October and November start-up of snowmaking operations. The responsible operator will refrain from starting production too early and risk losing product and capacity along with the increased operational costs associated with lost production. To justify the capital investment it is necessary to maximize production when the weather opportunity presents itself.



File Code: 1900

Date: April 15, 2005

Dear Planning Participant:

The Wenatchee River Ranger District is beginning the environmental analysis process to examine the proposed construction of a 5 acre reservoir that would supply water to an integrated snowmaking system at the Mission Ridge Ski Area. A prior Decision Memo signed on July 6, 1994 approved a reservoir and snowmaking system at the ski area. Based on that earlier Decision, the reservoir site in 1996 was logged, cleared, grubbed and slash burned in preparation to the final grading of the reservoir and installation of piping. Final construction, though, of the reservoir was not completed.

The location of this proposed snowmaking reservoir is within the basin east of Mission Peak and south west of the Bomber Cliffs in the Mission Ridge Ski Area. This basin area is equally divided between Washington Department of Fish and Wildlife lands and National Forest lands in T21N, R19E, Sections 26 and 27. A location map of the project area is enclosed with this letter.

Project Purpose and Need:

The Mission Ridge Ski Area is currently proposing to re-configure the original design of this reservoir and would like to finish construction of it later this year. The new design has reduced the size of the reservoir while keeping it within the original containment area identified in the 1994 Decision Memo. The reservoir volume has been reduced from the 300 acre-feet of the original design to approximately 55 acre-feet in the new design. The surface acres have been reduced from 11 acres to approximately 5 acres.

Another change from the original reservoir proposal is that approximately eighty percent of the impounded water would now be on National Forest land in the new design versus fifty percent in the original design. Also, the redesigned earthen dam would now be located entirely on Washington Department of Fish and Wildlife lands and not on National Forest lands as in the original design.

It is because of this change in the reservoir design that we are re-examining the potential environmental effects of this project. No additional tree removal is required at the site and the redesigned reservoir would lie entirely within the originally identified project area.

The reservoir would provide the volume of water needed to ensure snowmaking capabilities by season opening of the Mission Ridge Ski Area. The reservoir would be topped-off beginning in October in preparation for snowmaking operations. The reservoir would be recharged over the course of the winter as water is used for snowmaking. The reservoir would withdraw water when needed from both Squilchuck Creek and Lake Creek. The reservoir would be to full capacity at the end of the April and would remain full over the course of the summer and early fall.

