Powderhorn 4a

Replacement of existing snowmaking pipe would result in 0.1 acres of temporary impacts to jurisdictional waters. These wetlands were previously disturbed when snowmaking facilities were originally installed at Powderhorn. Careful installation of snowmaking pipeline through wetlands would minimize long-term impacts to the resource. Wetland topsoil would be carefully stockpiled to preserve the seed stock and ensure quick revegetation of the disturbance corridor. Additional wetland plants would be planted to stabilize soils and prevent the invasion of none native or wetland species.

A total of 0.1 acres of ski-over wetlands would not require any modification to vegetation. In ski-over areas, snow would be compacted and some mechanical pruning of shrub vegetation may occur. However, no vegetative treatment or ground disturbance would occur; therefore, no significant effects to wetland functions are anticipated.

Indirect impacts to jurisdictional waters will most likely include increased water yield and elevated rates of sediment deposition due to vegetation removal and earth disturbance in adjacent upland areas. BMPs such as silt fencing will be utilized to reduce the rates of erosion and sedimentation. With BMPs in place, no deposition of sediment in jurisdictional waters is anticipated. As noted above, vegetation clearing could increase water yield to wetlands, theoretically affecting a change in the composition of wetland vegetation and/or an increase in wetland size.

Mitigation will be proposed as part of the 404 permitting process and would ensure that no net loss of wetlands results from project implementation. Wetland functions will take several years to return to pre-construction levels as vegetation reestablishes itself; however, as long as wetland hydrology is preserved, there is no reason not to expect full wetland recovery.

ALTERNATIVE D

Alternative D increases snowmaking at Powderhorn, but reduces coverage slightly when compared to Alternative B by avoiding snowmaking installation on steeper slopes. Alternative D would permanently impact 0.10 acres of jurisdictional wetlands. None of the proposed permanent disturbance would involve the elimination of an entire wetland community. Permanent impacts would be limited to small pieces along the margin of several wetlands throughout the project area including forested, shrub, and meadow communities as a result of trail and road construction.

Flush cutting of trees in forested wetlands would result in 1.7 acres of non-jurisdictional impacts (wetland type conversion). Even though wetlands would not be lost, their functions would change. One function that would change is the value of the wetland to wildlife. For example, flush cut wetlands would favor a different community of small mammals that prefer meadows to forests. Tree species that would be flush cut include aspen, Engelmann spruce, and subalpine fir. Overstory species have a large affect on rates of evapo-transpiration, which can alter hydrologic conditions and wetland plant community composition. Effects of vegetation manipulation would be as discussed under Alternative B.