

dogwood, Pacific willow, western crabapple, and Pacific ninebark. The shrubs will be installed in small clumps with individual plants installed 5 feet apart. No trees are proposed for this mitigation because the impacted areas are mostly scrub/shrub and because the Shorewood residents have requested that the mitigation not be planted with trees so that the view from the community center is not blocked.

Grading Specifications

The wetland creation areas are on level to very gradually sloping terrain that appears to have been filled historically and these areas will be graded so that the wetlands slope up to the remaining upland but the base of each wetland area will be level. Each wetland area will be graded so that it lies at the same elevation as the existing wetland after spread of topsoil. It is difficult to create wetlands on slopes so we are proposing to maintain level topography across the wetland base. A portion of the western wetland mitigation area lies within the red alder forest and will involve clearing and grubbing of this area prior to soil removal. The remainder of the mitigation site will involve excavation of existing mowed grass that will not require clearing prior to grading activities. There is no specific topographic information available for the blackberry dominated wetland associated with the ditch and during construction it may be determined that grading the blackberry area is required so that this area remains wetland.

The wetland areas will be graded per the cross section on the attached mitigation plan drawing so that the base elevation of each creation will be at the same elevation as the existing forested wetland. The base elevation of the upper eastern wetland mitigation area will be 9.3 feet and the base elevation of the lower western wetland mitigation area will be 8 feet. The wetland areas will be over-excavated by about 6 inches so that topsoil can be spread to a depth of about 6 inches to achieve the final elevations. The slopes of the created wetland will be constructed at a 5:1 grade so that there is a gradual transition between the wetland and the surrounding upland. Rough woody mulch as ground from trees and shrubs cleared as part of the road and mitigation construction should be spread at least 3 inches thick over the topsoil to retain moisture and reduce the chances of non-native plant establishment. The mulch will be set higher than the final elevation but will not affect the development of wetland conditions. After topsoil and mulch have been spread across the created wetland areas, one 5-10 foot diameter root wad and one minimum 10 foot long log with root ball attached shall be placed randomly into each wetland creation area to improve habitat diversity. The entire wetland creation process will be supervised by the project biologist to ensure that the wetlands are created per the approved design. The biologist will also be on site to make decisions about the final grade based on conditions not readily evident during preparation of the design particularly with regard to the blackberry wetland and its associated ditch.

The soils within the created wetland areas appear to be historic fill in the upper eastern mitigation site judging by the compact nature and grayish color of the horizon as observed at Test Holes 6-8 conducted during the field delineation. There is a thin layer of fine