

Section 9 Guidelines for Wetland Replacement by Substitution or Enhancement

PART 1. INTRODUCTION1
PART 2. WAC 222-24-015, CONSTRUCTION IN WETLANDS1

The following section is designed to assist landowners to comply with the provisions of **Chapter 222-24 WAC, Road Construction and Maintenance**. Further assistance may be sought from the Department of Natural Resources, the Department of Fish and Wildlife or Department of Ecology. Individuals with wetland expertise from affected tribes should also be considered for consultation.

PART 1. INTRODUCTION

One of the goals of the road maintenance section is to construct and maintain a road system that has minimal impacts on the public resource and no net loss of wetland function across the landscape.

Forest Practice Application for road or landing construction that will cause more than 0.5 acres to be filled of any individual wetland must be classified a Class IV Special. Replacement of the lost wetland function is required by either creation of new wetlands or the enhancement of existing wetlands. Replacement is on a two for one basis of the same type of wetland in the same general location. Providing an equivalent amount of function to replace what has been impacted or lost.

Accurate delineation is required if the proposed road or landing will fill or drain more than 0.1-acre of a Type A, B, or forested wetland. A tenth acre (0.1) is equal to 4,356 square feet or approximately an area 20 feet by 218 feet or 30 feet by 145 feet.

If the planned activity impacts a Type A, B or forested wetland the wetland mitigation sequence in WAC 222-24-015 is followed. A mitigation plan needs to be attached to the application that indicates:

- How the proposal is the least environmentally damaging location
- How the proposal minimizes impacts
- Describes planned restoration
- How the proposal reduces or eliminates impacts over time
- Planned wetland replacement, include documentation of review by the Department of Ecology
- How does the proposal meet the goal of no net loss of wetland function

PART 2. WAC 222-24-015, CONSTRUCTION IN WETLANDS states that “all road and landing construction near or within wetlands must be conducted so that selection of choices are made in the following order with avoidance being the most preferred and replacement being the least preferred alternative.”

1. Avoid impacts by selecting the least environmentally damaging landing location, road location and road length. Landowners must attempt to minimize road length concurrently with the attempt to avoid wetlands.
 - Make approximate determination of wetland boundaries of Type A, B and forested wetlands in the vicinity of the proposed road or landing location.
 - Consider the environmental consequences of road length and construction of alternate locations (i.e. stream crossings, stream adjacent parallel roads, unstable slopes).
 - Seek cooperation with adjacent landowners for alternate access.
 - Consider alternate harvest methods to reduce road length and impacts from landings.
 - Consider using temporary roads.
2. Minimize impacts by reducing the subgrade width, fill acreage and spoil areas
 - Reduce running surface width to one lane where practical with a minimum number of turnouts.
 - Minimize length of road crossing wetlands.
 - Landing size should be reduced in wetlands by minimizing log storage on site.
 - All efforts should be made to find non-wetland sites for spoil disposal. If disposal in wetlands is necessary, acreage should be minimized by increase in pile height.
 - Appropriate means should be used to minimize sediment generation and entry to wetlands (i.e. sediment traps, use clean fill and surfacing material, slope road approaches away, merchandise logs away from wetland, limit road use to the driest time of the year).
 - Use construction matting (geo-textile fabrics) along with puncheon, or other method to reduce the impacts of fill.
3. Restore affected areas by removing temporary fills or road sections upon the completion of the project.
 - Road approaches to wetland areas should be stabilized and re-vegetated with native plant species early enough in the season so that vegetation can be established on the site prior to the wet season.
 - Remove the road fill or sections of road fill to at or below the original wetland grade.
4. Reduce or eliminate impacts over time by preserving or maintaining areas
 - Restrict road use in wetlands or abandon roads following harvest.
 - Preserve undisturbed forested wetland areas that would otherwise be harvested under current regulations.
 - Retain additional wildlife trees, beyond the reserve tree requirements, in or adjacent to RMZ's or WMZ's.
 - Evaluate the road network for existing roads that are not critical for future management that are located within wetlands that can be abandoned.
5. Replace affected areas by creating new wetlands or enhancing existing wetlands.
 - Wetland creation is costly, complex and uncertain. All enhancement options should be pursued prior to attempting wetland creation.
 - Enhancement options include importing beavers, raising culverts, creating off-channel fish habitat, providing duck boxes, improving plant diversity or habitat complexity by leaving undisturbed forested wetland areas, or some combination of available options.

- Where enhancement is not feasible, contact the Departments of Ecology or Fish and Wildlife, or a wetlands consultant for creation possibilities. If the area is within the boundary of an Indian reservation contact the tribe.
- Site specific plans for creating wetlands generally will require creation of more acres of wetlands than those filled or drained to ensure establishment of adequate function. Monitoring will be required to ensure success of the creation project.