



Illustration by Libby Walker Davidson

WETLANDS FACT SHEET

Department of Environmental Conservation
Water Quality Division, Wetland Office
103 South Main St., Waterbury, VT 05671-0408
(802) 241-3770

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Topic: Utility Line Crossings

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BACKGROUND

The Wetlands Office reviews many projects that involve underground and above ground utility line crossings. Some examples include water and sewer lines, stormwater pipes, natural gas lines and power lines. Whether above ground or below ground, utility lines can impact wetlands. The placement of a power pole or the installation of a below ground pipe may involve excavation of wetland soils and the use of heavy machinery in a wetland. In addition, these projects commonly involve clearing vegetation and sometimes require maintaining a clear corridor through the wetland which can impact plant communities and wildlife habitat. The disturbance of wetland soils may also cause invasions of non-native, nuisance plant species.

Unless specified as an Allowed Use under Section 6.2 of the Vermont Wetland Rules, any activity in a state-designated significant wetland requires a Conditional Use Determination from the Agency of Natural Resources. The Wetland Rules designate all wetlands identified on Vermont Significant Wetlands Inventory (VSWI) maps and contiguous wetland areas as significant, or Class Two wetlands. Some allowed uses include the emergency repair of utility poles and lines, and the maintenance, reconstruction or routine repair of facilities and structures which do not involve substantial expansion or modification. Consult the Wetlands Office to determine whether a specific project qualifies as an Allowed or Conditional Use.

PROJECT PLANNING AND DESIGN

In order to minimize wetland impacts and expedite any potential project review, the Wetlands Office recommends considering wetlands during the planning and design phase of the project. The following steps can be taken:

1. Obtain the Vermont Significant Wetlands Inventory (VSWI) maps for the general project area.
2. Determine if there are any mapped wetlands in or near the proposed or existing rights-of-way.
3. Walk the line with the wetland map(s) in hand and take note of the specific locations of both mapped and unmapped wetlands.
4. Identify wetlands on the project plans.
5. Evaluate the proposed route and determine whether the project can be redesigned to avoid and minimize impacts to wetlands. The mitigation sequence outlined in the Conditional Use Review Standards [Vermont Wetland Rules, Section 8.5(b)] is a good place to start.
 - a. **Avoid**
 - Can the proposed project be located in a suitable upland area?
 - Have all practicable measures been taken to avoid adverse impacts to protected wetland functions?

b. Minimize

- Has the project been planned to minimize wetland impacts (e.g., crossing wetlands at narrow points, spanning wetlands, minimizing the widths of maintained rights-of-way, or limiting construction to the margins rather than through the center of wetlands)?

CONSTRUCTION CONDITIONS

Where wetland crossings cannot be avoided, the following construction conditions are recommended:

1. Minimize the use of heavy machinery in wetlands by installing construction barriers at the edge of disturbance. A combination silt fence/snow fence works can be effective.
2. Construction mats or timber mats should be used for heavy machinery in wetlands which have well developed organic horizons (8" or more of organic material in the upper part of the soil), or in wetlands which have standing water. All mats should be removed upon completion of construction.
3. Restrict construction through wetlands to the drier portion of the year, preferably between July 1 and September 30.
4. The removal of vegetation should be minimized as much as possible. In areas where excavation is not proposed, but where vegetation removal is necessary, vegetation should be cut at ground level, leaving root systems intact.
5. Care should be taken during construction to stockpile excavated topsoil and subsoil separately. When backfilling, soils should be replaced in the order in which they were removed. Topsoil should remain as the surface layer. The Wetlands Office should be consulted for construction work that involves organic soils. In these cases, a more careful stockpiling and replacement plan may be necessary.
6. Disturbed areas should be restored to their previous elevation using indigenous material. Excess material should be removed to a suitable non-wetland site for disposal.
7. Exposed soils should be mulched immediately after construction to allow for the re-establishment of native vegetation.
8. An on-site supervisor from the company's engineering or environmental staff should be provided to supervise construction in wetlands.
9. The time of exposure of wetland soils should be minimized.
10. Erosion control structures should be installed down gradient of construction in sloped areas adjacent to wetlands and water bodies. These structures should be regularly maintained and should be removed once the vegetation has been re-established.
11. Any areas where wetland soils are disturbed should be monitored for nuisance plant species for five years following construction. Two such species are purple loosestrife (*Lythrum salicaria*) and common reed (*Phragmites australis*). These non-native plants are very aggressive and tend to choke out native vegetation that is valuable to wildlife. If either of the two plants become evident, they should be pulled and destroyed in an upland location before they spread throughout the wetland.