

# Wooded Wetlands



## DEFINITION

Wooded wetlands can be wooded peatlands or treed swamps with trees taller than 4 m covering more than 25% of the area.

## ROLE

Wooded wetlands form ecosystems that maintain ecological functions and provide important ecological services. The special dynamics of these environments promote biodiversity by providing a variety of habitats for fauna and flora.



## LOCATION

Most wooded wetlands occupy depressions, lower slopes, flat terrain or are close to streams and lakes. However, wetlands may also occur on slopes where the water table is close to ground level. These are sites with oblique drainage (see page).

## DESCRIPTION

### Treed swamps

Treed swamps are subject to seasonal flooding or are characterized by permanently or temporarily water-saturated soils and by woody, shrubby, or arborescent vegetation growing on mineral soil.

There are two types of treed swamps:

#### Treed swamps not prone to overflow

A treed swamp whose water supply is not related to the overflow of a river or a lake.

Soil that is periodically saturated with water that rises above the soil surface in depressions, when snow melts, or when the water table rises after heavy rains.

High water table.



Jean Gaudet

#### Treed swamps prone to overflow

Treed swamp whose water supply is associated with an adjacent lake or river during periods of flooding.

Floods are of sufficient duration (from a few hours to a few weeks) or frequency (several times a year or a few times a decade) to influence the soil and the diversity of vegetation.

Relatively low-lying land compared to the level of the overflowing river or lake.



Martine Lapointe

### Wooded peatlands

Wooded wetland with sphagnum moss on the surface, under which at least 30 cm of peat (partially decomposed organic matter) has accumulated.

The water table is very close to the soil surface in wet periods and not very deep in dry summer periods.



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### Temporary ponds

Shallow depressions (not more than 1 m deep) of small size (generally less than 0.1 ha, rarely more than 0.4 ha).

Water generally present until June, or later if rainfall is abundant.

Not connected to the hydrographic network.

Often containing numerous woody debris.



Sébastien Nadeau - ARMVFPBSL

*Temporary ponds are not only wetlands. They can be found in many forest environments and play an essential hydric role for the survival of several species.*

THE DETAILED CHARACTERISTICS OF WOODED WETLANDS ARE AVAILABLE (IN FRENCH) AT: [WWW.AFBF.QC.CA/MILIEUX-HUMIDES-BOISES](http://WWW.AFBF.QC.CA/MILIEUX-HUMIDES-BOISES)



## HERE ARE RECOMMENDATIONS FOR SOUND MANAGEMENT PRACTICES ADAPTED TO FORESTRY INTERVENTIONS IN WOODED WETLANDS.

### Road construction / culvert installation



- Locate and avoid certain wet forest environments (ex.: springs, streambanks, temporary ponds).
- Plan the shortest possible roads.
- Install stream crossings (temporary or permanent culverts or bridges) during periods of low water flow, outside fish run periods and where the distance between banks is shortest.
- Plan roads following the natural drainage.
- Choose the time of year when the water table is at its lowest.
- Increase load-bearing capacity by compacting snow on winter roads.
- Identify and avoid: the habitats of at-risk species of flora and fauna, rare natural communities, forest refuges and exceptional forest ecosystems.
- Minimize the width of forest roads.

### Felling and processing of wood



- Verify that the machinery to be used is adequate for work in wet environments (ex.: wide tires, light weight, long boom).
- When invasive exotic plants are present, clean machinery far from watercourses.
- Maintain a protective band of forest cover near wet environments.
- Favour the delimiting of harvested trees in forest roads.
- Stack wood away from wet areas.
- Avoid sharp turns to prevent damage to roots and soil.
- Avoid felling trees towards watercourses.
- Prevent winter temporary bridges from sinking.
- Equipment operators should always keep an oil spill control kit nearby.
- Maintain wooded corridors between more heavily cut areas.
- Plan cuts that follow the natural contours of the landscape.

### Wood extraction (skidding, forwarding)



- Avoid rut creation by anticipating early thaws and heavy rains to stop or move machinery.
- Minimize sedimentation of waterways by diverting surface flows (ex.: installing water bars).
- Keep machinery out of riparian protection strips.
- Reduce the footprint by using appropriate machinery (ex.: wide tires, light weight).
- Restrict the movement of heavy equipment to designated trails.
- Plan skid trails parallel to the natural surface drainage.
- Create a mat of branches or tree tops to improve soil weight-bearing capacity.

### Forest regeneration



- Aim to protect natural regeneration of all sizes.
- Check for the presence of invasive exotic plants and adjust intervention if necessary.
- Delineate riparian protection strips along watercourses or lakes.
- Position windrows of forest residues so as not to impede wildlife movement.
- Favor the planting of seedlings on natural mounds (hummocks).
- During regeneration maintenance work, preserve low vegetation and fruit-bearing shrubs.
- Avoid intervening during the nesting period.
- Preserve temporary ponds and riparian protection strips.

### Monitoring forestry activities



- Remove all winter bridges before snowmelt.
- Do not use winter roads in other seasons.
- Visit your property frequently to monitor changes.
- Correct rutting of forest roads if necessary.
- Ensure that channels and ditches drain water away from watercourses.
- Monitor the presence of beavers.
- Check that installed culverts allow water to flow freely.
- Prevent erosion and stabilise bare soil.
- Check for new colonies of invasive exotic species.

INFORMATION ABOUT FORESTRY BEST PRACTICES IS AVAILABLE (IN FRENCH) AT:  
[WWW.AFBF.QC.CA/MILIEUX-HUMIDES-BOISES/#SAINES-PRATIQUES](http://WWW.AFBF.QC.CA/MILIEUX-HUMIDES-BOISES/#SAINES-PRATIQUES)



This fact sheet is the result of a major collaboration between several local and provincial organisations. The Agence forestière des Bois-Francs would like to thank all those who have contributed to this joint effort.