Headwaters
The Ontario Headwaters Institute

Fact Sheet on Wetlands

Making up about 5% of the world's surface area, wetlands provide fundamentally important habitat to more than a third of the world's species, who use them to breed, rear their young, and for food.

Wetlands also contribute what are called ecological goods and services to both ecosystems, people, and communities, including water filtration, water storage that reduces flooding, nutrients and other aspects of water chemistry, and food and fibre such as rice and timber.

While wetlands can also act as carbon sinks to help mitigate climate change, the OHI is more concerned about the loss of carbon if wetlands dry out over the longer term, especially in a changing climate, than short-term calculations for carbon credits.

Canada has about 14% of its surface area in wetlands, constituting about 25% of the world's total wetland area. Unfortunately, past practices have resulted in the loss of over 72% of wetlands in south-central Ontario, impacting biodiversity and the health of downstream receiving waters.

There are five types of wetlands in Ontario:

Peatlands -- Peatlands are areas of peat usually saturated with and covered by water. The have low acidity and are low in biodiversity. Most of Ontario's peatlands are found in the Hudson Bay Lowlands, and most are generally in permafrost or covered by ice, which fortunately keeps their methane locked away from the atmosphere;

Bogs -- Bogs are depressions filled by precipitation and are usually characterized by peat below and sphagnum moss above. Due to the peat, they are highly acidic and low in nutrients and biodiversity;

Swamps -- Dominated by trees, swamps are the most common wetland in southern Ontario;

Marshes -- Marshes may provide the iconic image of wetlands in most people's minds as they have large areas of open water and high biodiversity, with floating plants like water lilies, emergent plants such as cattails, and offer breeding and nursing ground for fish, amphibians, birds, and others; and,

Fens -- Fens usually occur where the water is high in nutrients or minerals and, while they have more biodiversity than bogs or peatlands, are dominated by sedges rather a wealth of plant types.

Changes to legislation, regulation, and permitting since 2018, including to the Endangered Species Act, the Conservation Authorities Act, and in Minister's Zoning Orders, may make it difficult for the Province to deliver on promises to reverse wetland loss in Ontario. In addition, while impressed with recent progress in constructed wetlands, the OHI has concerns about the use of off-setting to allow new wetlands to be built to replace wetlands, including those that are provincially significant, permitted for destruction.