



Ecology Action Centre

Keeping the “Know” in Nova Scotia: Wildfires

September 2026

Introduction

Wildfires are becoming more frequent, destructive and intense due to human activities that have destabilized the climate and degraded our forests.

At home and abroad, wildfires are taking a growing toll on ecosystems and human health. But landscape-level planning, more sustainable forestry practices and switching to renewable energy sources could help reduce these risks to keep our province and communities safer.

This explainer will cover:

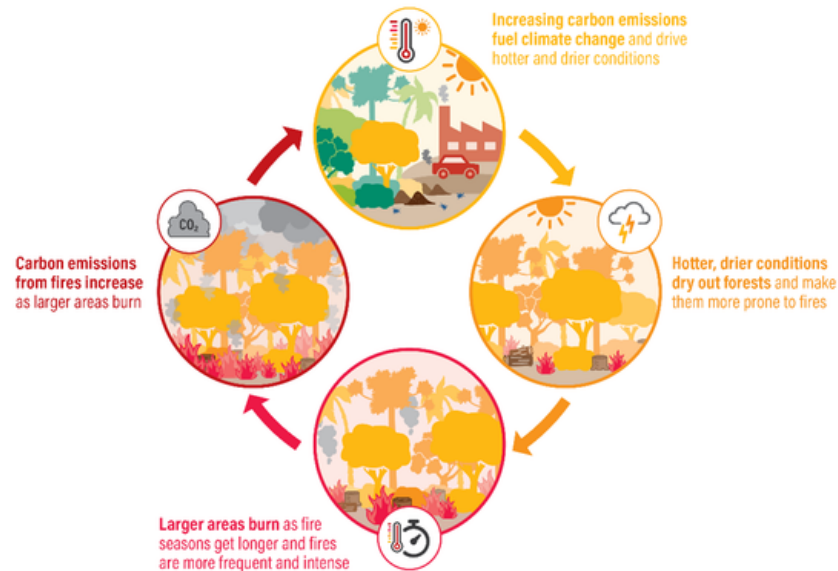
- The climate-fire feedback loop
- Wildfires and the Wabanaki-Acadian forest
- How industrial forestry practices are making wildfires worse
- Wetlands: an unassuming ally
- Recommendations for reducing wildfire risks and impacts in Nova Scotia

Climate-fire feedback loop

Climate change is making wildfires worse, and wildfires are making climate change worse. This is known as the climate-fire feedback loop.

Climate-fire feedback loop (continued)

Fires and the Climate Feedback Loop



Source: Global Forest Watch.



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Wildfires exacerbate climate change by [injecting huge amounts of carbon dioxide](#) into the atmosphere. Researchers write that across Canada, the carbon emissions from the 2023 wildfires were [“comparable to the annual fossil fuel emissions of large nations.”](#)

Wildfire behaviour is impacted by wind speeds, high temperatures, drought and available fuel. Climate change is exacerbating all these factors, causing wildfires to become larger, more intense and more frequent.

Each year in Canada, this results in tens of thousands of people being evacuated, communities being destroyed and millions of hectares being burned.



Wildfires & the Wabanaki-Acadian forest

The Wabanaki-Acadian forest is distinct from other Canadian forest regions, such as the boreal and western montane forests, which are often struck by dry lightning events and have adapted to more frequent fires.

The characteristically long-lived, mixed-species forests in Nova Scotia are not fire driven. This means that fire is not the primary agent of forest disturbance or renewal.

In our normally wet Maritime climate, natural fire ignitions have always been rare, and approximately [97 per cent](#) of wildfires are caused by human activity.

Why the Wabanaki-Acadian forest is less fire prone

Geography and climate

Since Nova Scotia is a peninsula that projects into the Atlantic Ocean, the marine-moderated climate normally provides plenty of precipitation to keep forest fuels (all the burnable materials in the forest) moist and help them break down faster.

The unique geology of Nova Scotia also supports many lakes, watercourses, wetlands and coasts, all of which can limit wildfire spread.

Why the Wabanaki-Acadian forest is less fire prone (continued)

Forest structure

The characteristic forests of N.S. are inherently more resistant to wildfire. As they mature, they form **closed canopies**, deep shade and a **moist, sponge-like forest floor** that limits the fine, dry fuels that fires need to spread. Large old trees such as red spruce, hemlock, pine, maple, beech and yellow birch develop **tall trunks with few lower branches**, making it hard for flames to reach the canopy.

These mixed, uneven-aged forests contain deciduous stands, whose higher moisture levels make them naturally less flammable. These hardwood patches can act as natural firebreaks, slowing or stopping wildfires as they move across the landscape.

How industrial forestry practices are increasing wildfire risks

Decades of industrial forestry practices such as clearcutting and spraying herbicides have replaced much of the naturally fire-resistant Wabanaki-Acadian forests with **young softwood plantations**. Softwood trees are naturally more flammable than hardwood trees, due to their **high resin content**. [Experts warn](#) that the increase in softwood plantations across the landscape, along with more frequent and longer periods of drought, has turned much of the landscape into a potential tinderbox, making wildfires burn more intensely and spread more easily.

How industrial forestry practices are increasing wildfire risks (continued)

The industrial forestry industry often **sprays glyphosate-based herbicides** to kill hardwood trees growing back after clearcutting. This unsustainable and unnecessary practice increases wildfire risk by drying out the forest, leaving behind dead hardwood saplings that create ground-level fuel for wildfires and killing the less fire-prone species in favour of more fire-prone species.

Clear-cutting and other heavy harvests have wiped out most of Nova Scotia's **old forests**, exposing the forest floor to the desiccating effects of the sun and wind. This creates **hotter temperatures** and dramatically reduces moisture in the forests, thus making them more susceptible to wildfires.

In the Long Lake and Lake George wildfires in 2025, plantations and other areas of “managed forests” became highly flammable and generally burned more intensely than intact forests.

Wetlands: an unassuming ally

Healthy wetlands are important landscape features that serve as natural firebreaks. For example, in 2009, [wetlands in the Purcell's Cove Backlands in Halifax](#) acted as a critical natural barrier, preventing wildfire from spreading to nearby homes. Despite this, the [provincial government has significantly reduced protections](#) for wetlands and has even [blocked efforts by others](#) to strengthen regulations and policies to protect wetlands.

Recommendations for reducing wildfire risks and impacts in Nova Scotia

From unsustainable forestry practices to dependence on fossil fuels, we know the risk factors that have been making wildfires more likely and more severe. But that means we also know what we need to do to lower those risks.

To better protect people and communities, all levels of government must take serious, meaningful action. The Nova Scotia Government should take immediate steps in the following areas:

Climate action

Address the root cause of worsening wildfires: climate change.

- Meet Nova Scotia's legislated commitment to transition to 80 per cent clean energy by 2030
- Follow through on Nova Scotia's legislated commitment to reach 20 per cent land and water protection by 2030
- Protect and restore [natural carbon sinks](#) including mixed-species hardwood forests and wetlands
- Follow the science on forest biomass:
 - Stop burning [forest biomass for electricity](#)
 - Change the Renewable Electricity Regulations under the *Electricity Act* to remove forest biomass as a “renewable” electricity source
 - Stop exporting forest biomass to other countries

Recommendations for reducing wildfire risks and impacts in Nova Scotia (continued)

Forestry practices

Stop allowing the forestry industry to convert naturally fire-resistant Wabanaki-Acadian forests into fire-prone softwood plantations.

- Stop permitting the spraying of glyphosate-based herbicides on Nova Scotia's forests
- Reduce clearcutting and maximize canopy cover
- Suspend commercial logging operations during periods of extreme drought to reduce fire ignition potential
- Protect more old forests

Wetland conservation

Prioritize strengthening policies and regulations to better protect healthy, intact wetlands.

- Reverse the weakening of the Nova Scotia Wetland Conservation Policy and reinstate the original protections for Wetlands of Special Significance
- Permit municipalities to include appropriate wetland and watercourse buffers in their regional plans or municipal bylaws

Recommendations for reducing wildfire risks and impacts in Nova Scotia (continued)

Early detection and Emergency Alerts

- Research and invest in early wildfire detection technologies
- Improve systems for promptly notifying Nova Scotians about wildfire emergencies, evacuations and smoke advisories

Better supports for Fire Services

- Strengthen Nova Scotia's largely volunteer fire service
- Support firefighter attraction and retention (particularly in rural areas)
- Find ways to better compensate and support volunteer firefighters
- Invest in our own fixed-wing water bombers and/or participate in a [national aerial firefighting program](#) to increase capacity and efficacy

Safer communities

- Require all new residential developments in or near forested areas to have multiple exits
- Add emergency exits to existing neighborhoods in or near forested areas, where they currently only have one exit point
- Limit urban sprawl development in wooded areas

Recommendations for reducing wildfire risks and impacts in Nova Scotia (continued)

- Incorporate [FireSmart Canada's Residential Development Guide](#) best practices into community planning
- Ensure all new residential construction is fire -resilient and limit new residential development in high-risk wildfire zones
- Continue to expand FireSmart education across Nova Scotia and introduce rebate and retrofit programs to help communities apply FireSmart resilience principles

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