



Outcomes-based forestry

Outcomes-based forestry is a type of forest management that is focused on results, with less emphasis on how that result is achieved.

Using this model, forestry companies are given a set of outcomes that they must achieve. This is in contrast with a prescriptive approach where companies are given a set of rules about how to harvest in order to achieve the same results.

Outcomes-based forestry makes forestry companies more accountable and also gives them more flexibility to manage forests sustainably. It is already used to varying degrees on Crown land in several Canadian provinces (New Brunswick, Ontario, Saskatchewan, British Columbia, Alberta).

Following recommendations in the Independent Review of Forest Practices, Nova Scotia is moving toward outcomes-based forestry on Crown land. It is part of the shift to ecological forestry to protect ecosystems and biodiversity, support economic growth, and keep forests healthy and sustainable.

As outcomes-based forestry is adopted, existing guides for forestry practices will continue to be used, but success and compliance will be measured by the outcomes rather than by the practices used to achieve them. Approvals will still be required, and audits will still be done to make sure required outcomes are met.

The first step is a pilot project in the Cape Breton Highlands. Eventually, the aim is to apply this type of forest management to other Crown lands within the [triad model of ecological forestry](#).

Benefits of outcomes-based forestry

Outcomes-based forestry gives forestry companies rules about what they need to achieve but allows flexibility in how they achieve it. The emphasis is on the result rather than on how that result is achieved.

By working to this set of required outcomes, forestry companies have more flexibility to adapt their plans and techniques to the specific nature of each harvest area, while maintaining overall forest objectives. This flexibility creates opportunity for innovation in practices for sustainable forest management – which is important as the economy and forests change over time.

This less prescriptive approach also makes forestry companies more accountable. They manage forests to a set of sustainable goals, rather than simply following a set of rules without a defined and desired result. They take responsibility for choosing appropriate practices to achieve required outcomes. They will answer public questions about their harvest proposals. They will need to demonstrate to government and to certification bodies that they are achieving the required outcomes.

Through this approach, companies create development plans outlining five years of proposed harvesting. It is a more efficient way to plan and approve forestry operations and allows for adaptation as necessary.

With the outcomes-based forestry model, forestry companies and the department will take greater consideration of how each proposed harvest block fits into the broader forest landscape. This will help make sure ecological integrity and biodiversity are protected and supported across the province.

How outcomes-based forestry works

In Nova Scotia, forestry companies must get licences to harvest on Crown land. These licensees submit their harvest proposals to the Department of Natural Resources and Renewables and need approval to implement them. That will continue with outcomes-based forestry.

Currently, approvals come with harvest prescriptions that spell out how the harvest must be done. For example, the prescription is based on the [Silvicultural Guide to the Ecological Matrix](#) when the proposed harvest is for an area of Acadian forest that is part of the matrix or mixed use zone of the triad model.

With outcomes-based forestry, licensees will submit development plans that outline five years' worth of harvest proposals – instead of submitting one site at a time. Practices described in the [Silvicultural Guide to the Ecological Matrix](#), or other documents, will continue to serve as a guide to achieve the desired outcomes. But the department's approval will no longer require certain practices to be used for the harvest. Instead, it will require certain outcomes to be achieved.

For example, an approval with the current prescriptive approach would include requirements such as the species and volume of trees that must be left in place on a harvest site. An approval with the outcomes-based approach would include requirements such as demonstrating that what is left after a harvest matches what would be left after a natural disturbance such as windstorms, wildfires, or insect attacks.

The approval process currently includes an opportunity for public comment and that will continue with outcomes-based forestry. Proposed harvest areas are posted on the [Harvest Plans Map Viewer](#) and Nova Scotians have 40 days to provide comments to share their local knowledge about the area.

When the approach is no longer prescriptive, the option to request pre-treatment assessment data from the department will no longer be available. However, licensees will still be required to evaluate forest conditions and document the basis for treatment decisions. Any questions or requests for more information about the proposed harvests will be directed to the licensees instead of the department. This ensures licensees are accountable for their development plans. For transparency and accountability, licensees are already required to have ongoing consultation opportunities for the Mi'kmaq and Nova Scotians to provide input and feedback on forest management activities. This will continue with the outcomes-based approach.

Licensees will still have annual sustainable limits for harvests – they cannot harvest the full 5-year plan in one year. They will report annually to the department to make sure they are within these limits. In addition, licensees will need to demonstrate to independent auditors that they are achieving the outcomes in order to maintain their certifications (such as Forest Stewardship Council, Sustainable Forestry Initiative). Licensees will be required to share these audits with the department as part of their annual reporting.

Harvests must still adhere to all applicable legislation and regulations, such as the [Wildlife Habitat and Watercourses Protections Regulations](#), [special management practices](#) and [legislation](#) for endangered species and species at risk.

Outcomes to be achieved

Required outcomes are framed in terms of desired values in relation to our forests, objectives to be achieved that support those values, and clear and measurable indicators and targets to evaluate success.

Values – These are things that are considered important to protect or support in our forests, such as ecosystem services like clean air and water and fertile soil, species diversity, health of the forest, biodiversity, and social and economic values.

Outcomes-based forestry



Objectives – These are goals to achieve that are in line with our values, such as soil and water quality, adaptation to climate change, and recreational opportunities.

Indicators – These are things used to measure whether the values and objectives are being achieved, such as tree species and ages, habitat types, carbon storage, or tree planting.

Targets – These are the numbers associated with each indicator, such as a desired amount of young and old forest or habitat for species at risk. The most appropriate numbers are chosen based on the best available science and ongoing research.

These outcomes have their foundations in ecological forestry and ecosystem management. At a national level, they are outlined in the [Criteria and Indicators of Sustainable Forest Management in Canada](#). Canada's [State of the Forest Report](#) reports on the indicators annually as part of the country's commitment to sustainable forestry.

In Nova Scotia, the department developed indicators through the [Nova Scotia Forest Alliance](#) as part of the [Canadian Model Forest Network](#). The indicators will be reviewed regularly and adapted as necessary using the best available science to make sure all forest values are accounted for in decision making processes.

Pilot project

Port Hawkesbury Paper (a Crown land licensee) is partnering with the Department of Natural Resources and Renewables on a pilot project using the outcomes-based forestry approach. It is taking place in the Cape Breton Highlands (ecodistrict 210) starting in 2024. It will run for 5 years.

The company submitted its development plan to the department in July 2024. The blocks they propose to harvest over five years were posted on the [Harvest Plans Map Viewer](#) on August 1, 2024. Nova Scotians have 40 days to provide comments to share their local knowledge about the area.

Outcomes-based forestry



Some parts of Ecodistrict 210 are in the conservation zone of the triad model of ecological forestry (such as federal and provincial parks and protected areas). Other parts are privately owned. These lands will not be used for the pilot project, but they will be taken into consideration as part of the broader landscape around the harvest blocks.

Once final approval decisions are made, the company will start carrying out operations through its development plan. They will report to the department annually to demonstrate that they are achieving required outcomes. Adaptations will occur as required to improve processes, refine desired outcomes and make sure the project is successful.

Lessons learned during the pilot project will help the department make decisions about eventually expanding outcomes-based forestry to other Crown lands.