

Canadian Forestry Regulations and Standards

Canadian forestry operations are governed by a complex and continuously evolving regulatory framework based on multi-stakeholder consultation that varies with location and forest type. A set of federal legislation governs issues that span the nation, while most planning, harvesting, silviculture, water, species at risk, and conservation issues are regulated by the provincial governments. The company-specific management plans that are built to meet these regulatory requirements are supplemented with voluntary third-party certification of sustainable forest management practices.

FOUR DIFFERENT LAYERS OF REGULATION AND STANDARDS



FEDERAL LEGISLATION & REGULATION

The Canadian forest sector must comply with a set of legislation and regulations at the federal level.



FORESTRY





MIGRATORY BIRDS





ASSESSMENT



ENVIRONMENT PROTECTION



ACT AND REGULATIONS



FISHERIES

ACT

FERTILIZERS REGULATIONS

PROVINCIAL LEGISLATION & REGULATION

Each province has a set of legislation, regulations, guidelines, and standards associated with forest management, which must be complied with.

PROVINCE*	ВС	AB	SK	МВ	ON
# ACTS [†]	17	11	12	12	13
# REGULATIONS [†]	17	17	8	25	17
PROVINCE*	QC	NB	NS	NL	
# ACTS [†]	10	14	11	8	
# REGULATIONS [†]	21	15	19	17	

SUSTAINABLE FOREST MANAGEMENT CERTIFICATION

There are three third-party-audited SFM certification systems in Canada, all of which are applied to lands across the country.

13,349,358[‡]

CANADIAN STANDARDS ASSOCIATION (CSA)

48,425,579[‡]

FOREST STEWARDSHIP COUNCIL (FSC)

121,950,670[‡]

SUSTAINABLE FORESTRY INITIATIVE (SFI)

COMPANY-SPECIFIC FOREST MANAGEMENT PLANNING

Forest management companies in Canada must develop annual operating plans, along with longer-term management plans and all of these are approved by the provincial government.









*BC (British Columbia), AB (Alberta), SK (Saskatchewan), MB (Manitoba), ON (Ontario), QC (Quebec), NB (New Brunswick), NS (Nova Scotia), NL (Newfoundland and Labrador) ‡as of February 2021 †including standards, guidelines, and codes of practice

INFORMATION TAKEN FROM:



FEDERAL FORESTRY REGULATORY LANDSCAPE





The Canadian forestry regulatory landscape is defined by the designation of authority over lands and natural resources in the Canadian Constitution. Under the Constitution Act (1867 and 1982), the provinces have jurisdiction over natural resources including forestry-related operations. The exception is on federal lands such as First Nation reserve lands and national parks. Forestry operations on federal lands are governed by the Forestry Act (1985) and accompanying Timber Regulations. However, all forestry operations are bound by overarching federal legislation, which includes:

 $\mathbb{N}^{(0)}$ FORESTRY SPECIES AT MIGRATORY BIRDS FISHERIES CONVENTION ACT **RISK ACT** ACT **FERTILIZERS IMPACT** CANADIAN **PEST CONTROL** ASSESSMENT **ENVIRONMENT** PRODUCTS ACT AND ACT **PROTECTION** ACT AND REGULATIONS **ACT REGULATIONS**

The Forestry Act, 1985 is concerned with forestry development and research in forests under federal jurisdiction (First Nations lands and national parks).

The Species at Risk Act, 2002 (SARA) was created to protect Canada's wildlife species that are at risk of extirpation or extinction² and to preserve Canada's natural heritage. In addition, SARA was created to meet Canada's commitment under the United Nations Convention on the Conservation of Biodiversity as ratified in 1992 and is a fundamental part of Canada's strategy to preserve biodiversity.

The Migratory Birds Convention Act, 1994 was created to implement a treaty between Canada and the US. The purpose of this Act and associated regulations is to protect and conserve migratory birds (as a population and individually) and their nests.

- Extirpation is defined as "wildlife species that no longer exist in the wild of Canada, but exist elsewhere" (s2).
- Extinction is defined as wildlife species that are no longer present anywhere.

The Fisheries Act, 1985 is the primary piece of legislation in Canada concerning fisheries management. This statute concerns the managing of fish that are part of a commercial, recreational, or Aboriginal fishery, or fish that support such a fishery. The Fisheries Act influences forestry management of riparian streamside areas, particularly in the context of potential pollution and/or direct effects on fish habitat.

The Impact Assessment Act, 2019 (IAA) governs the assessment of the effects a designated project may have on environment, health, social and economic conditions. The purpose of the IAA is to protect these aspects from adverse effects resulting from human activities, including applicable activities related to forest management.

The Canadian Environmental Protection Act, 1999 (CEPA) is concerned with protecting the environment and human health from the risk posed by pollutants. CEPA ensures that chemical substances are assessed to determine whether they meet the legislated criteria of a toxic substance, which therefore affects the chemicals that can be used in forest management as designated under the Pesticide Control Products Act of 2002.

The Pest Control Products Act. 2002 is meant to avoid unacceptable risks to people and the environment by regulating pest control products. Pests have the potential to damage valuable agricultural and forestry products; therefore, pest control products are commonly used to prevent this damage.

The Fertilizers Act, 1985 is designed to control the type of fertilizers available for agricultural operations. It is prohibited under this Act to sell or import a fertilizer or supplement unless it has been registered and conforms to Canadian standards.

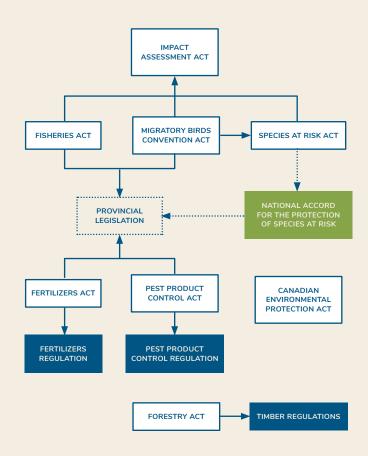


FIGURE 1 | The Federal Forestry Regulatory Framework



命 **PROVINCIAL LEGISLATION & REGULATION** ВС AB NB NS SK MB ON QC NL

British Columbia Forestry Regulatory Landscape



British Columbia (BC) has the largest forest industry in Canada (NRCan 2020); therefore, it is not surprising that the regulatory environment for forestry in BC is extensive and complex. The primary law governing forestry in BC is the Forest Act, 1996 and its associated regulations. The Acts that most significantly influence environmental aspects associated with forestry in BC

The Forest Act, 1996 is the key piece of legislation governing forestry operations in BC. Under this Act, the government can designate land as a timber supply area and determine the "allowable annual cut" (AAC) (permitted harvest level), which is reviewed every 10 years.

The Environment and Land Use Act, 1996 enables the government to increase public awareness of the environment, and to

ensure that environmental concerns are fully considered in land and resource development.

The Forest and Range Practices Act, 2002 outlines how all forest and range practices and resource-based activities are to be conducted on Crown land in BC, i.e., management plans, forest practices (e.g., roads, forest health, silviculture), resource protection, compliance, and enforcement.

The Wildfire Act, 2004 describes the government's authority for fire protection and control.

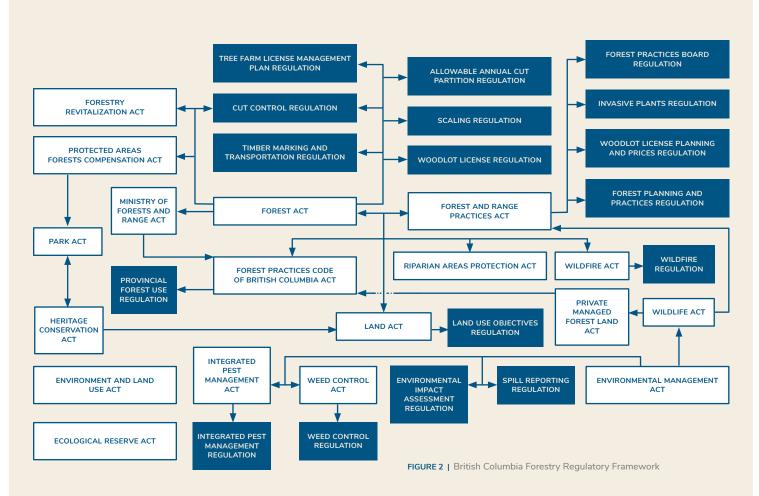
The Integrated Pest Management Act, 2003 regulates pesticide use in BC, including the use, handling, and sale of pesticides, which may not be done in a manner that causes or is likely to cause an adverse effect to the environment.

The Environmental Management Act, 2003 is focused on the management, protection, and enhancement of the environment. The Act covers matters relating to waste disposal, contaminated sites, releases to air, environmental impact assessments, and environmental emergencies.

The Ecological Reserve Act, 1996 is to set aside Crown land for the purpose of preserving natural ecosystems, habitat for endangered species, or unique natural phenomena in BC.

The Wildlife Act, 1996 is BC's primary wildlife protection and management legislation. It is against this Act to hunt, trap, take, wound, or harm wildlife that is listed as threatened or endangered on both public and private land in BC.

The Riparian Areas Protection Act, 1997 focuses on protection for fish in BC. The Act designates fish-bearing streams as "sensitive" streams for which long-term sustainability is at risk, and requires recovery plans for these streams.





PROVINCIAL LEGISLATION & REGULATION 命 BC SK MB NB NS ON QC NL

Alberta Foresty Regulatory Landscape



The primary law regulating forest management in Alberta is the Forests Act. This Act provides the basis for Crown forest tenure in Alberta. The regulation of forest practices occurs predominantly through guidance documents such as the Alberta Forest Management Planning Standard and the Alberta Timber Harvest Planning and Operating Ground Rules Framework for Renewal. The Acts that most significantly influence environmental aspects associated with forestry in Alberta include:

The Forests Act, 2000, amended in 2020, provides the legal framework for forest management in Alberta. It gives the government the power to make policies and regulations governing logging methods, wood utilization standards, and other broader issues concerning the use of forest land, including timber quotas and forest management agreements.

The Regulated Forest Management Profession Act, 2000 provides the basis for governing regulated forestry professionals

(RFPs) and registered professional forestry technicians (RPFTs) in Alberta.

The Natural Resources Conservation Board Act, 2000 was created to provide an impartial review process for activities that may affect natural resources in Alberta, including social, economic, and environmental effects of an activity and whether the project is in the public's best interest.

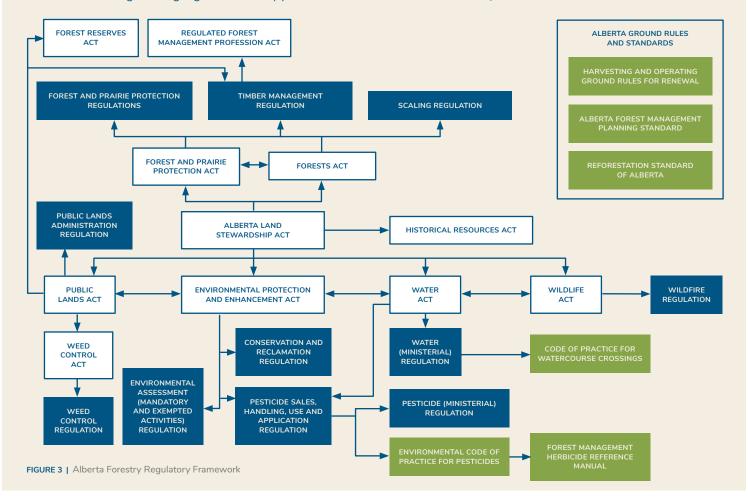
The Forest Reserves Act, 2000 defines the process for the acquisition of land for a forest reserve. Forest reserves are set aside for the purpose of forest conservation and for the maintenance of optimum water supply conditions in forest

The Forest and Prairie Protection Act, 2000 is concerned with fire protection on public lands and gives government the authority to enact regulations regarding fire control or prevention measures.

The Water Act, 2000 promotes and supports water conservation and management within Alberta, including the protection of water resources for the purpose of water use, water allocation, and penalties for violating the Act.

The Environmental Protection and Enhancement Act, 2000 (EPEA) is the primary environmental protection legislation in Alberta with the purpose of promoting and supporting the wise use, protection, and enhancement of the environment. It incorporates regulatory requirements for air, water, land, and biodiversity.

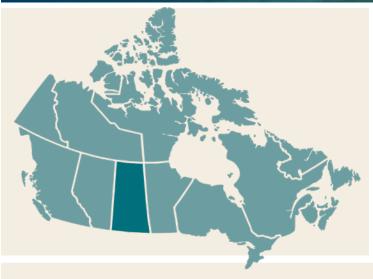
The Wildlife Act, 2000 provides protection and conservation for wild animals on public and private lands in Alberta. It provides legislation relating to wildlife management as a whole addressing hunting and trapping of wildlife as well as the conservation of species at risk.





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Saskatchewan Forestry Regulatory Landscape



Forestry in Saskatchewan is required to obtain environmental assessment approval under the Environmental Assessment Act, which is satisfied when a Forest Management Plan is prepared according to the Forest Management Planning standard. There are two primary laws that govern forestry in Saskatchewan: the Forest Resource Management Act, 1996 and the Environmental Assessment Act. The Acts that most significantly influence environmental aspects associated with forestry in Saskatchewan include:

The Forest Resources Management Act, 1996 implements a framework for sustainable use of forest land in Saskatchewan while simultaneously addressing the need for economic, social, and cultural opportunities, and maintaining and enhancing the health of Saskatchewan forests.

The Forestry Professions Act, 2006 governs registered professional foresters and forest technologists and establishes the Association of Saskatchewan Forestry Professionals.

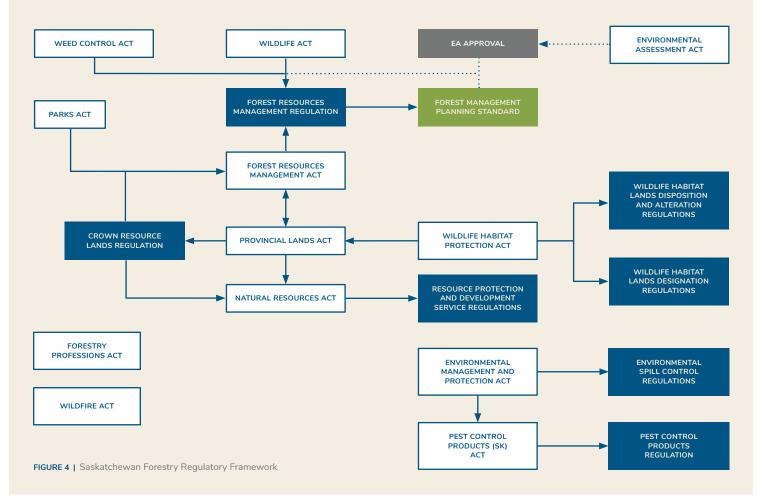
The Wildlife Act, 1998 regulates general wildlife management as well as species at risk protection. Under this Act, the government may classify wildlife as extirpated, endangered, threatened, or vulnerable. Classified species at risk are protected from harm, harvest, disturbance, and interference unless the person holds a license or the action is approved and in agreement with a recovery plan.

The Wildlife Habitat Protection Act, 1983-84 governs the protection and management of Crown lands for agricultural and wildlife purposes, and a list of designated wildlife habitat lands is found within the Act. All wildlife habitat lands are to be managed and used, including for forestry purposes, as prescribed in regulation.

The Natural Resources Act, 1993 applies to all renewable resources in Saskatchewan, including forest resources. The Act obliges the government to conserve, develop, manage, and utilize parks and natural resources in a sustainable manner.

The Environmental Management and Protection Act, 2010 is concerned with protecting the environment from pollution and enhancing the quality of the environment. The Act contains provisions for the prevention of the discharge of pollutants into watercourses, the prevention of site contamination, and the management of drinking water and wastewater systems.

The Saskatchewan Environmental Assessment Act, 1979-80 applies to forest management activities, which are considered a "development" project and warrant an environmental assessment.





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Manitoba Forestry Regulatory Landscape



Forestry operations in Manitoba are guided by a number of forestry guidelines, standards, and manuals. The primary laws governing forestry in Manitoba are The Forest Act, 2011 and The Environment Act, 2012. Some forestry activities in Manitoba also require additional approval through the environmental assessment process under The Environment Act. The Acts that most significantly influence environmental aspects associated with forestry in Manitoba include:

The Forest Act, 2011 is the primary regulatory tool governing forest management in Manitoba. It includes provisions governing forest tenure and administration, timber cutting rights, management of provincial forests, and prohibitions relating to Crown forests.

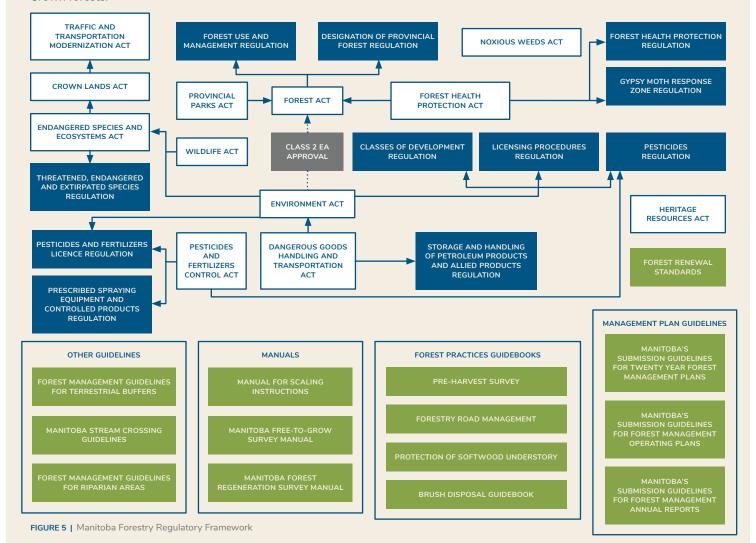
The Forest Health Protection Act, 2009 is designed to protect the health of all trees and forests in Manitoba through preventing forest diseases and pests from entering the province, detecting and controlling forest diseases and pests within the province, and developing programs to protect and promote forest health in Manitoba.

The Wildlife Act, 2010 provides general wildlife management provisions (i.e., hunting, trapping) for Manitoba. The Act gives the government the power to designate areas (e.g., wildlife refuges, wildlife management areas, special trapping areas) for wildlife management and conservation.

The Endangered Species and Ecosystems Act, 2013 is designed to protect and recover species or ecosystems at risk in Manitoba. The Act applies to both private and public land. Species listed as endangered, threatened, or extirpated are protected from harm or harassment, as are their habitats and any natural resources on which they depend.

The Environment Act, 2012 was created to develop and maintain an environmental protection and management system in Manitoba. The Act provides provisions for environmental assessments of projects likely to have significant effects on the environment.

The Pesticides and Fertilizers Control Act, 2012 defines the licensing requirements for distribution and application of pesticides and fertilizers in Manitoba. Commercial application of pesticides, including forestry-related applications, requires a license.





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Ontario Forestry Regulatory Landscape



Ontario has an extensive list of legislation that influences forest management. In addition, the Crown Forest Sustainability Act mandates the creation of four manuals, and these manuals lead to a series of guidelines. These documents provide the basis for regulating and guiding forest management operations in the province. The Acts that most significantly influence environmental aspects associated with forestry in Ontario include:

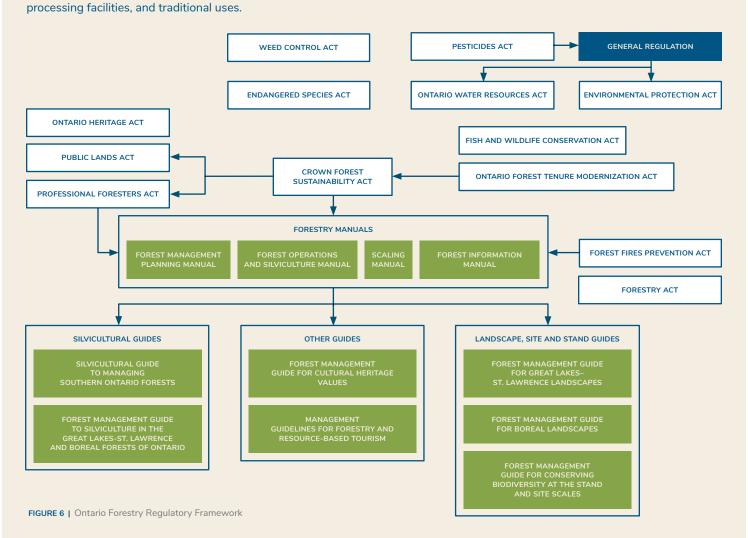
The Crown Forest Sustainability Act, 1994 is meant to ensure the sustainability of Crown forests and in so doing, manage Crown forests to meet the social, economic, and environmental needs for present and future generations in Ontario. The Act contains provisions on items such as forest planning, forest resource licences, forest operations, trust funds, forest resource The Forestry Act, 1990 allows the government to enter into agreements with landowners such as municipalities or conservation authorities for forest management purposes. In addition, the Act allows creation of programs to protect, manage, or establish woodlands and to encourage management that is consistent with good forestry practices.

The Professional Foresters Act, 2000 authorizes the Ontario Professional Foresters Association to regulate the practice of professional forestry and govern its members in accordance

The Endangered Species Act, 2007 is used to identify species at risk based on the best scientific evidence, to protect species at risk and their habitats, and to promote stewardship activities to assist in the protection and recovery of species at risk in Ontario. In 2020, the Crown Forest Sustainability Act was changed so that duplicative authorizations or exemptions under the Endangered Species Act, 2007 would no longer be required given that protection of species at risk is required under the CFSA and its associated forest management guides.

The Fish and Wildlife Conservation Act, 1997 provides for the management, perpetuation, and rehabilitation of wildlife resources in Ontario.

The Environmental Protection Act, 1990 was created to provide for the protection and conservation of the natural environment in Ontario. The Act contains provisions related to the discharge of contaminants, water, waste management. and other releases, along with environmental compliance approvals.





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Quebec Forestry Regulatory Landscape



Quebec has the second-largest forest industry in Canada, behind BC (NRCan 2020). Its primary forestry law was revised to formally adopt an ecosystem-based management approach. The Acts that most significantly influence environmental aspects associated with forestry in Quebec include:

The Sustainable Forest Development Act, 2013 is the primary law governing forest management in Quebec. The main purpose of the Act is to establish a forest regime designed to apply ecosystem-based management to sustainable forest development - that is, development that consists of ensuring the preservation of the biodiversity and viability of ecosystems by reducing the differences between developed and natural forests.

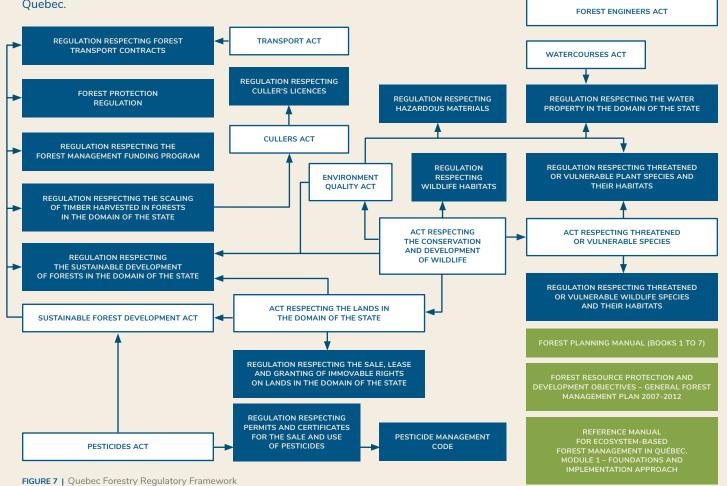
The Forest Engineers Act, 2008 defines the profession of forest engineers and the Ordre des ingénieurs forestiers du Québec, an association that manages the profession in the province of Ouebec.

The Act Respecting the Conservation and Development of Wildlife, 2013 has the objective of conserving wildlife and their habitat while maintaining the principles of sustainable development. The legislation includes general wildlife provisions (i.e., hunting, rights of First Nations) and some provisions for species at risk. The Act provides a number of mechanisms for controlling or restricting activities on land for species protection.

The Act Respecting Threatened or Vulnerable Species, 2011 establishes a list of species at risk within Quebec. In addition, the government may determine and identify the features and characteristics defining the habitat for the designated species at risk. The Act contains a section specifically to protect threatened or vulnerable plant species from harvest and exploitation. It prohibits anyone from possessing, acquiring, or genetically manipulating a listed species.

The Watercourses Act, 2011 addresses the management of water resources for energy, drinking, driving of timber, and flood prevention. The Act stipulates that the Minister may grant the right of use or lease, or may issue an occupation license for the beds or banks of a watercourse.

The Environment Quality Act, 2013 is meant to protect the environment from the adverse effects of development. The Act lists measures to manage and protect water in Quebec, address climate change, address pollution of the atmosphere, and manage residual and hazardous materials. Under the Act, it is prohibited to undertake or allow the emission, deposition, or discharge of a contaminant exceeding regulated levels or concentrations into the environment.





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New Brunswick Forestry Regulatory Landscape



The New Brunswick forestry regulatory environment is composed of a series of primary legislation and guidance documents to aid forest management. The primary law governing forestry in New Brunswick is the Crown Lands and Forests Act. The Acts that most significantly influence environmental aspects associated with forestry in New Brunswick include:

The Crown Lands and Forests Act, 1980 is the primary law governing forest tenure in New Brunswick. The Act defines the government's authority over the harvesting and renewal of timber on Crown land. In addition, the Act describes the power of the government to acquire and dispose of Crown forest. The Act includes provisions on forest tenure, forest protection, roads, and abandonment of forest land.

The New Brunswick Foresters Act, 2001 recognizes the previously established Association of Registered Professional Foresters, and defines the objectives, powers, and administration of the Association, which governs Registered Professional Foresters in New Brunswick.

The Natural Products Act, 1999 has authority over the development, conservation, and management of forest resources on private woodlots within the province. Under this Act, the government has the authority to implement and administer forest management programs on private woodlots.

The Protected Natural Areas Act, 2003 is meant to preserve the natural biological diversity within New Brunswick by protecting, conserving, and managing lands that represent the natural diversity of the province and contain unique features or rare, endangered, or ecologically sensitive flora and fauna.

The Species at Risk Act, 2012 provides for the recovery of wildlife species that are extirpated, endangered, or threatened due to human activities and aims to conserve species of special concern to prevent them from becoming listed under this Act. It is prohibited to kill, harm, harass, or take any individual that is listed as an extirpated, endangered, or threatened

The Clean Water Act, 1989 concerns all matters relating to the protection of watercourses and potable water systems. The Act gives the government authority to control, reduce, and eliminate the rate of a contaminant's deposition into a

The Clean Environment Act, 1973 is concerned with protecting the environment from human activities. The Act prohibits the release of a contaminant into or upon the environment that could negatively affect the environment; endanger people, animal life, or plant life; or damage property unless in compliance with regulations.

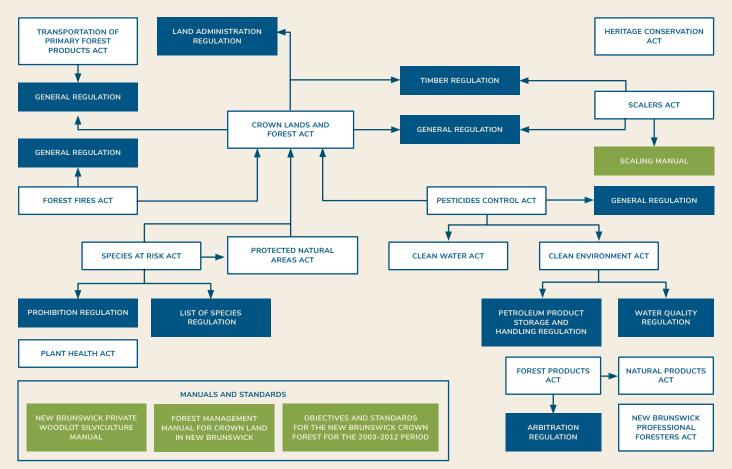


FIGURE 8 | New Brunswick Forestry Regulatory Framework



BC AB SK MB ON QC NB NS NL

Nova Scotia Forestry Regulatory Landscape



Unlike in other provinces, private landowners dominate forestry in Nova Scotia and there are only a few large-scale Crown forest tenure holders. Therefore, the regulatory environment in Nova Scotia differs from that in other provinces. The Acts that most significantly influence environmental aspects associated with forestry in Nova Scotia include:

The <u>Forests Act, 1989</u> provides the basis for effective management of Crown lands and encourages the development of private lands while maintaining and enhancing non-economic resources (i.e., wildlife, water quality, and recreational opportunities). Regulations under this Act include those for forest fire protection, forest sustainability, and wildlife and watercourse protection.

The <u>Crown Lands Act, 1989</u> provides the basis for Crown forest tenure in Nova Scotia. The purpose and objectives of the Act are to facilitate effective use of Crown lands through the application of proven forest management techniques, the tenure of Crown

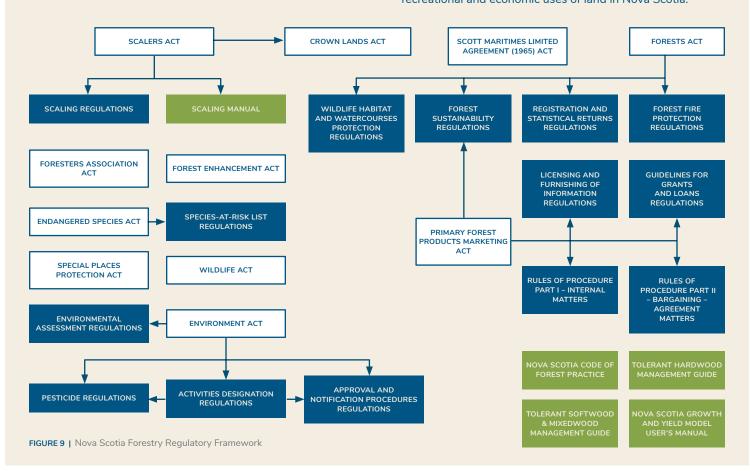
lands, the integration of wildlife and outdoor recreation into the forest management planning process, and the improved effectiveness of administration and management of Crown lands.

The <u>Foresters Association Act, 1999</u> establishes the Registered Professional Foresters Association of Nova Scotia. The objectives of the association are to establish and maintain standards for the members of the association and to encourage and facilitate the knowledge, skills, proficiency, and competency of its members in the practice of professional forestry.

The Environment Act, 1994-95 promotes and encourages the protection, enhancement, and prudent use of the environment in Nova Scotia. The Act includes sections on environmental education and research, environmental assessment, release of substances into the environment, the handling and use of dangerous goods and pesticides, the designation and management of contaminated sites, waste resource management, water resource management, air quality management, and related inspections.

The <u>Endangered Species Act, 1998</u> is meant to protect and conserve species at risk of extirpation and extinction in Nova Scotia. The Act is intended to be based on the precautionary principle. Species at risk can be designated under the Act as vulnerable, threatened, endangered, extirpated, or extinct. Under the Act, it is prohibited to harm, kill, disturb, or take an endangered or threatened species at risk or its dwelling place.

The <u>Wildlife Act, 1989</u> aims to develop and implement policies and programs to maintain biodiversity; integrate appropriate protective measures into policies for use on Crown lands and in guidelines for forest management; regulate hunting, fishing, and trapping activities; and provide for the continued renewal of resources while managing for the optimum recreational and economic uses of land in Nova Scotia.





BC AB SK MB ON QC NB NS NL

Newfoundland and Labrador Forestry Regulatory Landscape



The province of Newfoundland and Labrador has two important Acts that provide the basis for laws governing forestry: the Forestry Act and the Environmental Protection Act. Forestry operations in Newfoundland and Labrador are required to go through an environmental assessment process for certain activities and for forest management plans. The Acts that most significantly influence environmental aspects associated with forestry in Newfoundland and Labrador include:

The <u>Forestry Act</u>, <u>2009</u> is the primary piece of legislation governing forestry in Newfoundland and Labrador. The Act covers sections on Crown forest tenure, timber export, taxation, licensing of mills, forest protection, forest roads, and timber scaling.

The <u>Foresters Act</u>, 2011 establishes the Association of Registered Professional Foresters in Newfoundland and Labrador, which establishes and maintains standards of professional ethics for the members in the professional practice of forestry.

The Environmental Protection Act, 2002 incorporates requirements regarding environmental education and research, pollution control, waste disposal and litter, waste management, air quality management, contaminated sites, dangerous goods, pesticides, environmental assessment, approvals, and inspection and investigation. The purpose of the Act is to protect the environment from the possible harmful effects of development and resource management.

The <u>Forest Protection Act, 1990</u> establishes and provides the laws governing the Forest Protection Association. The objectives of this association are to develop and maintain forest conservation, education, and publicity programs designed to improve and perpetuate healthy forests in the province.

The <u>Water Resources Act, 2002</u> establishes legislative requirements concerning water rights, including the protection of water and wells, as well as provisions concerning the alteration or diversion of watercourses.

The <u>Endangered Species Act, 2006</u> aims to protect species at risk of extinction and establishes laws with respect to recovering and managing these species. The Act gives the government authority to designate a species as vulnerable, threatened, endangered, extirpated, or extinct. Once a species is designated as a species at risk, a management plan, recovery team, and subsequent recovery plan are created for that species, based on the degree of designation.

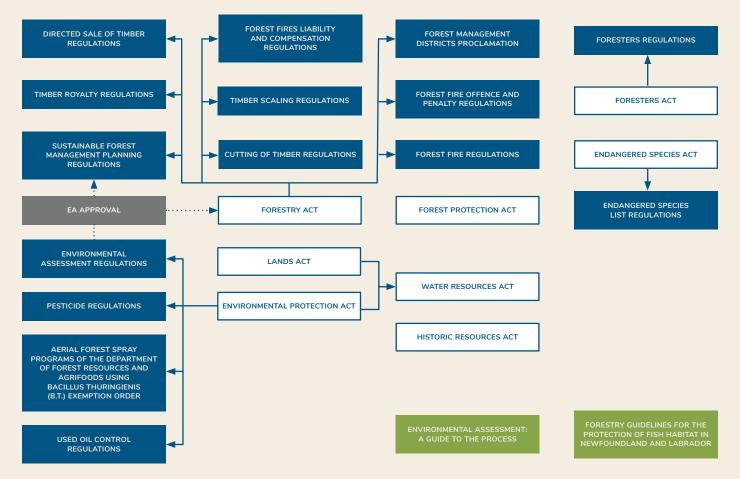


FIGURE 10 | Newfoundland and Labrador Forestry Regulatory Framework



SUSTAINABLE FOREST MANAGEMENT CERTIFICATION





Since the early 1990s, customers of forest products have sought independent assurance that the forests from which these products are sourced are managed sustainably. As a result, a number of systems and standards have been developed to measure or attest that forest companies are practicing sustainable forest management (SFM), resulting in a process called forest certification.

Achieving forest certification allows companies to provide third-party assurance that the forests under their management meet the requirements of a given standard or system. All three forest certification systems in use in Canada require adherence to relevant domestic laws and applicable tenure¹ arrangements, and recognition of Indigenous rights. Canada has the largest area of third-party certified forests in the world.

CSA

CANADIAN STANDARDS ASSOCIATION

The Canadian Standards Association (CSA) is an independent non-profit organization known for creating a diverse array of national standards for different industries and products in Canada. The CSA created a national standard to certify sustainably managed forested areas. This system requires continuous improvement of forest management practices and engagement of interested parties through a public participation process.

The requirements for the CSA standard are directly based on the CCFM SFM criteria and indicators. The general certification requirements under the CSA standard are:

- Compliance with relevant legislation
- Identification of appropriate values, objectives, indicators, and targets that clearly address the CCFM SFM criteria and CSA SFM elements in the standard
- Provision of continuous and meaningful public participation
- Achievement of, or progress towards, performance targets
- Continual improvement in performance

The principles of adaptive management are to be used throughout implementation of the CSA SFM system as well as in analyzing performance.

FSC

FOREST STEWARDSHIP COUNCIL

The Forest Stewardship Council (FSC) is a non-governmental non-profit international certification and labeling system that promotes environmental, social, and economically sound forest practices. The FSC forest certification system assesses whether forest operations are managing a defined forest area under the FSC forest management standards. FSC bases its certification process on 10 principles for responsible forest management:

- Compliance with laws and FSC principles
- Establishment of long-term tenure and user rights and responsibilities
- Recognition and respect for Indigenous peoples' rights
- Maintaining and enhancing community relations and workers' rights
 - Ensuring diverse benefits from the forest
 - Assessment and mitigation of environmental impact
 - Implementation of a management plan
 - Monitoring and assessment
 - Maintenance of high conservation value forests
 - Plantations as complementary to natural forests

Each principle is associated with a series of criteria that are further elaborated for different countries.



SUSTAINABLE FORESTRY INITIATIVE

The Sustainable Forestry Initiative (SFI) is an independent non-profit organization dedicated to advancing sustainability through forest-focused collaborations, including certification. The SFI standard is based on a series of principles for SFM and is used across North America. The SFI principles are:



The Canadian government has developed, through the Canadian Council of Forest Ministers (CCFM), <u>criteria and indicators</u> to assess progress towards SFM.

The CCFM SFM criteria and indicators are consistent with other internationally-recognized processes.

- Sustainable forestry
- Forest productivity and health
- Protection of water resources
- Protection of biological diversity
 - Aesthetics and recreation
- · Protection of special sites
- Legal compliance
- Research
- Training and education
- Community involvement and social responsibility, and respect for Indigenous rights

- Transparency
- Continual improvement
- Responsible fiber sourcing

SFI certification requires that forest management plans include long-term sustainable harvest levels and measures to avoid forest conversion or afforestation of ecologically important areas. Certification also requires investment in research, science, and technology, upon which sustainable forest management decisions are to be based.



COMPANY-SPECIFIC FOREST MANAGEMENT PLANNING





Forest management companies in Canada must develop annual operating plans, along with longer-term management plans, all of which are approved by the provincial government. All plans and forest activities must be approved by government before any operations can occur, and all operations are subject to audits, compliance and enforcement, and potential penalties and/or fines if the actions are found to be out of compliance. Provincial governments have Constitutional authority over forest resources, including their development, conservation, and management. Forest management planning undertaken by individual companies incorporates measures to address regulatory requirements at the federal and provincial levels, along with meeting obligations under voluntary third-party sustainable forest management certification programs.

100 YEAR PLANNING HORIZON

The planning horizon for forest management in Canada is typically on a 100- or 200-year timeframe. For many Canadian forests, 100 years represents one forest rotation (growth cycle). Each province has its own system for undertaking these long-term plans, but in all cases the government works closely with industry and the public in their development. Consultation with Indigenous communities is required. Independent external experts may also be directly involved in the process. Plans incorporate detailed analyses regarding forest harvest, growth, yield, and regeneration. A number of provincial governments have shifted towards designing forest management approaches that mimic natural forest conditions that are affected by disturbances such as fire and insects. An overarching principle harnessed in forest management planning is that of adaptive management—an iterative process in which the uncertainty in decision making is reduced over time through the knowledge gained from monitoring the effects of previous management decisions.



Forest Management Agreements (FMAs) or licenses are long-term (typically 20- to 25-year), renewable arrangements for forest tenure¹, where a company is granted harvesting rights in exchange for managing the forests in a responsible manner and paying a fee ("stumpage") for the wood removed. Through these agreements, forest companies are granted the right to harvest timber in accordance with a defined level of "annual allowable cut" approved by each provincial government. FMAs/licenses are government driven and are aligned with broader landscape-level planning objectives for the province in question. Forest tenures include requirements for managing the forest for a broad set of values that goes beyond timber production and includes social, economic, and environmental factors (e.g., watershed and wetland protection, biodiversity, wildlife habitat, long-term stability of forest ecosystems, and recreation), as well as cumulative effects.



Forest Management Plans (FMPs) or Forest Stewardship Plans (FSPs) are typically developed every 5 or 10 years (but can be up to 25 years) to provide a strategic vision and commitment to conserving forest values within the context of the longer-term FMA or license. An FMP/FSP outlines forest management objectives and strategies, including consideration for Indigenous rights, recognition of ecosystem services, as well as public input and consultation. FMPs/FSPs must be available for public review and must not infringe on Indigenous community requirements. Many provinces require that FMPs/FSPs be established based on regulations or regulatory guidance manuals. Most provinces also require sign-off by a registered professional forester. Independent audits are a component of many provincial regulatory compliance programs and are required to achieve Sustainable Forest Management certification.



Annual Operating Plans (AOPs) or annual site plans typically define aspects such as planning, harvesting, and reforestation activities, as well as harvesting block and road building schedules for the year of activity. These annual plans incorporate highly detailed information associated with designing harvesting blocks in a manner that complies with regulations associated with maintaining riparian areas alongside waterbodies, and identifying and maintaining habitat for species at risk and other wildlife. Forestry companies are also required to submit formal reports on their activities, and FMAs/licenses and FMPs/FSPs may be updated as a result. AOPs are subject to provincial monitoring and inspection to ensure compliance. A failure to comply with provincial or federal policy and regulations can lead to significant penalties, including fines, suspension of harvesting rights, or seizure of timber.