

**REGISTRATION FORM
PURSUANT TO SECTION 49 OF
THE ENVIRONMENTAL PROTECTION ACT**

Forest Management Districts 22
Five Year Operating Plan 2027-2031

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PURSUANT TO SECTION 49 OF
THE ENVIRONMENTAL PROTECTION ACT**

Name of Undertaking: Forest Management District 22 Five Year Operating Plan 2027-2031

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The Undertaking: (i) **Nature of Undertaking**

To conduct forestry activities (harvesting, silviculture and primary resource road construction) from 2027 to 2031 in Forest Management District 22.

(ii) Purpose/Rationale/Need for Undertaking

This undertaking will enable the Forest and Wildlife Branch to schedule forest management activities such as: commercial/domestic harvesting, road construction and reforestation proposed throughout the planning zone.

This undertaking is necessary to maintain and/or expand the existing commercial industry and allow domestic harvest.

Description of Undertaking:

(i) Geographic Location

Generally, District 22 is located in Western Labrador, bounded by the Quebec / Newfoundland and Labrador border and Forest Management Districts 19 (a,b,c), 23 and 24. The district has a total area of approximately 8 million ha making it the largest district in the Province.

(ii) Operation

Commercial harvesting will be carried out with shortwood harvesters and forwarders and Domestic harvesting will be done by chainsaw with extraction by snowmobile and ATV. Forest access roads will be constructed using excavators and/or bulldozers and silviculture will be carried out using brushsaws, pottiputkis, shovels and prescribed burning tools where required. All buffer requirements and operations will be carried out in accordance with the Environmental Protection Guidelines for Ecologically Based Forest Resource Management and the Forestry Act. Operations will commence upon approval of undertaking and continue yearly until 2031.

(iii) Occupations

Loggers, equipment operators, truckers, sawmillers, silviculture workers and domestic cutters which includes 85120, 82010, 73300 and 73400 from National Occupation Classification (NOC) 2021 Version 1.0.

Approval of the Undertaking:

Commercial and domestic cutting permits as well as operating permits will be required from the District Forest Management Offices.

Schedule:

This new plan is set to replace the current Crown District 22 Five-Year Forestry Operating Plan (Project #2162) which is set to expire on December 31, 2026 and is scheduled to commence on January 1, 2027 and expire on December 31, 2031.

June 17, 2026
Date


Director - FAL

Forest Management Five Year Operating Plan

Forest Management District 22

Date effective: January 01, 2027

Forestry and Wildlife Branch
Forest Ecosystem Management Division
Department of Forestry, Agriculture and Lands

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INTRODUCTION

When Forest Management Districts were declared in 1974, it was required through legislation that each District would prepare its own management plan. Initially, management planning was completed by each District in consultation with other resource agencies. Throughout the 1980's this concept was expanded to include input into plans through public meetings. In the 1990's, planning expanded to include the use of questionnaires and a series of public meetings throughout the district to gauge public opinion. By 1994, the Newfoundland Forest Service began to move toward management on an ecosystem basis, which included public consultation.

District 22 has been through five public consultation processes since the late 1990's with the latter yielding a forest management plan for the district. Again in 2026, Forest Management District 22 (District 22) began forest ecosystem planning for the sixth time. The direct result of the extended planning process in District 22 is this *Five-Year Operating Plan for Forest Management District 22* (herein referred to as the "*operating plan*").

The Forest & Wildlife Branch are the proponent of this forest management plan although all participants who provided input are acknowledged for their time and effort. The operating plan outlines specific areas and details for the various management activities that are scheduled to occur between January 1, 2027, and December 31, 2031. These activities, such as harvesting, silviculture, road construction, protection and research are carried out to suit the goals and objectives of the operating plan and the Provincial Sustainable Forest Management Strategy 2025-2035 (herein referred to as the "strategy plan"). Furthermore, annual work schedules and past annual reports will be prepared as part of the planning and reporting process.

Forest management today is far removed from the old days of timber supply being the only perceived value. District 22 is not faced with the same challenges as many other Provincial districts. The area is not encumbered by forestry-based towns that often cause a considerable struggle to balance society's values. The district tells a story of an area that has been following natural disturbance and succession patterns without a forest industry influence. The activities planned in this document will strive to balance society's values with an emphasis on maintaining ecosystem processes while meeting the values of concerned stakeholders by practicing sustainable ecosystem management.

SECTION 1 DESCRIPTION OF THE LAND BASE

1.1 General

Under legislation, the province is divided into twenty-four Forest Management Districts. The planning zone consists of only one District and is a large area (approximately 8 million ha) of boreal forest situated in western Labrador. Physical features vary a great deal over such a large landscape. The following descriptions apply generally to District 22.

1.1.1 Location

Generally, District 22 is in Western Labrador, bounded by the Quebec/Newfoundland and Labrador border and Forest Management Districts 19 (a,b,c), 23 and 24 (Figure 2.1). The legal description is provided in Appendix I. The district has a total area of approximately 8 million ha making it the largest district in the province. There is a district office located in Wabush and a satellite office in Churchill Falls. The district 22 office is managed out of Forest Management District 19 office located in Northwest River.

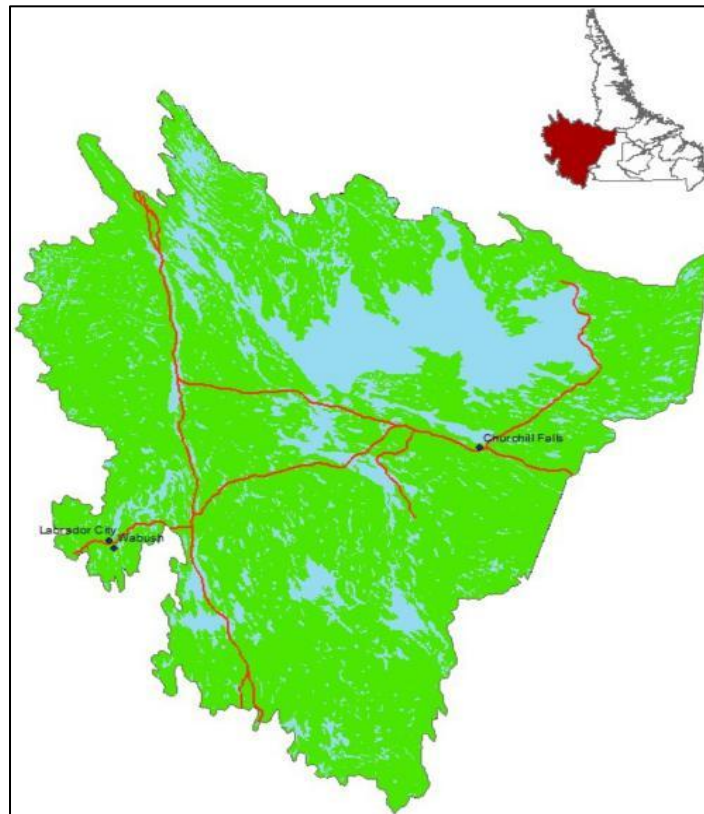


Figure 1: Forest Management District 22 Boundary and Communities

1.1.2 History

Labrador in general consists of a diverse blend of cultures consisting of established indigenous groups, non-indigenous residents and transient peoples. The three permanent

communities in the district are centered on mega resource projects, namely hydro power production and mining. As a result of these mega projects, hundreds of families from all over have moved into the district for employment opportunities. Despite the diversity, District 22 is still rich in the traditional Labrador way of life characterized by a northern lifestyle of fishing, hunting and trapping. This tradition is a continuation from early accounts of subsistence hunting and the establishment of fur trade routes across the area from the St. Lawrence to Ungava Bay over 3500 years ago.

The land in District 22 has had many uses over time. The largest landscape change that has occurred in the district is a result of flooding from the creation of the Smallwood reservoir for the Churchill River Hydro Project in the mid 1970's. The large-scale flooding of this area covers an area of 6527 km² (www.statscan.ca). Secondary to the creation of the Smallwood reservoir are open pit mining operations in Labrador City and Wabush. In the past, forest resources did not play a significant role as a major economic activity in the district, but they have traditionally provided for subsistence activities.

With three communities (Churchill Falls, Labrador City and Wabush) in the district, there are over 10,000 permanent residents (Statistics Canada Census, 2021), making it the most populated district in Labrador. All three communities are very similar and were established as support centers for resource extraction. The district is well connected by major transportation links including roads, railways & airlines. The northern lifestyles of the residents include the domestic use of all resources in the district. Forest areas provide sources of wood products (fuel wood and building materials) and wildlife (game and furs), while other non-timber forest products such as mushrooms, and berries are provided as well. Furthermore, there are numerous cabins in the district, especially with such a high density of roads/trails present in the area due to resource extraction activities. There are several tourist sport-fishing camps which have existed for many years. Sport hunting of caribou from the George River Herd was also promoted as a tourist activity in the district but has since ceased with the decline in herd numbers. With the completion of the Trans-Labrador Highway from the Quebec border near Labrador City to the Quebec border near L'Anse au Claire, the potential for tourist activity is expected to rise.

Two remaining mega resource projects described above provide the majority of the primary employment opportunities in the area. Secondary employment opportunities also exist in the public service, education, health care and retail sectors.

1.1.3 Ownership

District 22 is considered a crown district as currently the entire district is classed as crown land, although aboriginal land claims asserted in the area are under review (Figure 2.2).

1.2 Physical

Meades 1990 describes in detail the dominant ecological features, forest floor conditions and typical associated wildlife within the ecoregions of the district. Slow biological processes, reduced water uptake and very slow tree growth are attributed to the short cool growing season. Terrestrial and aquatic ecosystem components are roughly proportionally equal across the landscape.

1.2.1 Topography and Hydrology

Forest terrain conditions vary within the district, but generally it is a flat rolling plateau with numerous lakes and occasional hills leading to a predominance of black spruce usually open grown with a moss or lichen understory.

1.2.2 Geology

The underlying Canadian Shield (archean, granites, gneisses and acidic intrusive) coupled with the effects of recent glaciation have had a strong influence on ecosystem development.

1.2.3 Soils

Generally, the area has moderate drainage with adequate soil depth. Landforms include numerous eskers and drumlins and deep tills and glaciofluvial deposits over the bedrock.

1.2.4 Climate

The climate is essentially continental with a cool short summer and a very long cold winter. Precipitation averages less than 1000mm annually and the mean annual temperature is approximately -3.5° C.

1.3 Ecological Characteristics

1.3.1 Ecosystem Description

Ecoregions have been mapped for Newfoundland and Labrador based on distinctive regional climates as expressed primarily by vegetation. Figure 2 shows the extent of these ecoregions in the District. There are three ecoregions represented in District 22 which are described below and by area in Table 1.

Mid Subarctic Forest – Michikamau

This ecoregion encompasses the upland plateaus of central and western Labrador. Eskers and drumlin ridges are characteristic. This region has a very continental, sub-arctic climate with short, cool summers and long, severe, cold winters. The growing season is 100 to 120 days. Black spruce is the dominant trees species, except in most northern areas, where white spruce dominates. Trembling aspen reaches its northern limit here and the only native population of jack pine occurs in this ecoregion. Open lichen woodlands are characteristic of this ecoregion.

Extensive ribbed fen-string bog complexes, bordered by black spruce-sphagnum forest stands, dominate areas with little relief.

Low Subarctic Forest – Mecatina River

The main portion of this ecoregion is in southern Labrador, with two separate areas to the north of Lake Melville and the Red Wine Mountains. Broad river valleys and rolling hills covered by shallow till, drumlins, and eskers are characteristic of the region. Summers are cool and winters are long. The growing season is 120 to 140 days. Somewhat open black spruce forests are the dominant vegetation, with crown densities greater than 75% on better sites. String bog-ribbed fen complexes cover extensive areas throughout the region.

High Subarctic Tundra – Kingurutil/Fraser

The George River Plateau makes up the main (northern) portion of this ecoregion. Various mountainous outliers, including the Benedict Mountains, Red Wine Mountains, Mealy Mountains, and the McPhadyen Plateau also belong to this region. Summers are short and cool, with a growing season of 80 to 120 days; winters are long, severe, and very cold. The upland vegetation is similar to the Low Arctic Tundra - Torngat ecoregion; however, the valleys support tree growth. Closed black spruce forests (with some larch) occur on lower valley slopes. River terraces support open spruce forests with a lichen dominated understory. Shallow fens with frozen peat occupy small depressions in plateau surfaces.

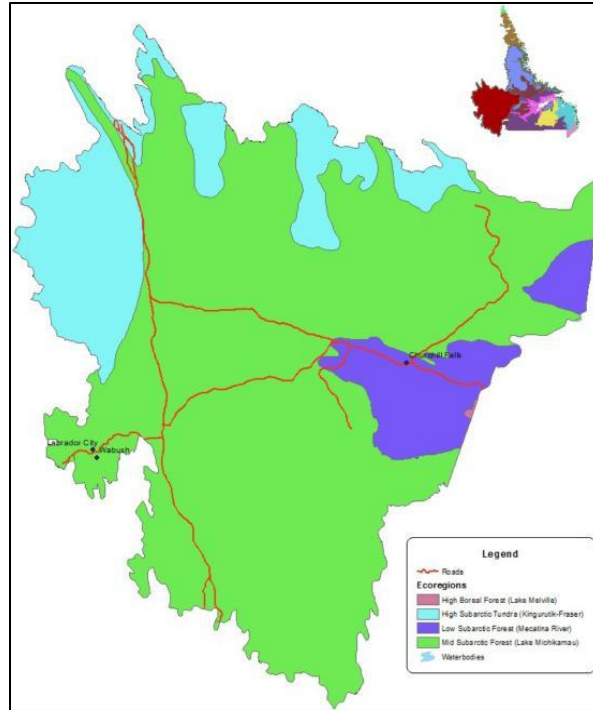


Figure 2: Ecoregions of District 22

TABLE 1: ECOREGIONS AREA AND AREA PERCENTAGE WITHIN LABRADOR AND DISTRICT 22.

	EcoRegions		
	Area in Labrador	(ha) in District 22	% in District 22
Mid Subarctic Forest - Michikamau	8,523,500	6,028,090	70
High Subarctic Tundra – Kingurutil/Fraser	6,529,479	1,354,824	21
Low Subarctic Forest - Mecatina River	5,151,411	646,252	13
High Boreal Forest – Lake Melville	1,728,142	3,285	<1

1.4 Ecosystem Dynamics

1.4.1 Ecosystem Condition and Productivity

Even though a significant portion of Labrador is forested, only sporadic mosaics of commercial forest stands are distributed throughout District 22. Black Spruce (*Picea mariana*) is the predominant tree species within the district forming over 90% of the total volume, while other boreal species make up the remainder 10%.

The district has been relatively untouched by large scale commercial harvesting operations and has only seen small localized commercial operations and subsistence use. As noted previously, the largest scale disturbance present in the district has been for mega projects such as mining and hydro power production. Large scale insect infestations and disease have not been reported in the area, although significant infestations have occurred in neighbouring districts (District 19a, b, and c). Smaller scale disturbances such as windthrow or individual tree mortality are more common. Forest fire is the main disturbance regime for the area and is the predominant mechanism for vegetation renewal.

Ecosystem conditions in the district provide habitat for a considerable number of wildlife species including caribou, moose, black bear, wolves, furbearers, small mammals, waterfowl, other birds, fish and a host of invertebrates and micro fauna species.

Productivity can simply be defined as the accrual of matter and energy in biomass. The boreal forests in Labrador are characterized, for the most part, by an even age structure being dominated by an over mature age class. The tree canopy is poorly developed in many parts of the district (<25% crown cover). Among the factors that limit stand density and thus crown cover are severe climatic conditions and soils with restricted or excessive drainage.

Closed canopy forests occur only on rich, moist, mid to lower slopes. They contain a mixture of spruce, fir and hardwood tree species and a well-developed ground layer of feather mosses (primarily *Pleurozium schreberi*). On coarse-textured soils (typical of river terraces and eskers), the dominant vegetation is lichen woodland, which is characterized by an open canopy of black spruce and a well-developed lichen layer. Most animal species found in forested areas of the district are typical of boreal forest regions across northern Canada.

The general characteristic of forest stands in District 22 (site class, age class and working group) are described later in the forest profile section (2.4.2). These characters define the limits within which commercial forest development must function. Stands greater than 160+ years, primarily even- aged, form the dominant age class structure in this forest, although an extensive fire disturbed area has yet to be classified. Most forest sites are classed as poor to medium. Silviculture intervention may enhance future productivity on some sites, but how such treatments will affect the long rotation period (120 years) of forest stands in Labrador is not fully understood at this time.

Extant biomass is an integrating measure of forest ecosystem condition. Biomass represents the mass of living organisms inherent in an ecosystem and the ecosystem serves as a repository for animal, plant and microbial biomass. Accordingly, biomass is a measure of forest ecosystem condition and productivity. It refers to the condition of the forest in terms of organic matter production of all species and types.

Indicators to measure forest ecosystem extant biomass during the planning period include:

- *Mean Annual increment (m³/ha/yr) by forest type and age class.*
- *Frequency and occurrence within selected indicator species*

Aquatic ecosystems within forest ecosystems integrate the overall watershed condition and thus provide an important measure of forest ecosystem condition and productivity. Elevated nutrient levels and flow rates in forest streams sustained over a long period clearly indicate a major forest ecosystem malfunction. In these situations, water and nutrients that should be utilized in forest growth are moving rapidly into drainage systems. This threatens the sustainability of the forest as well as the aquatic systems through eutrophication and flooding of downstream areas.

Indicators to measure changes in water quality and quantity during the planning period include:

- *Water Quality as measured by water chemistry, turbidity, and other parameters for selected waterways.*
- *Trend and timing of events in stream flows from forest catchments for selected waterways.*

Information collected on all indicators will be used to assess forest ecosystem condition and productivity change (if any) during the planning period based on the management actions of the plan as well as natural disturbances that will occur.

Resilience is the capacity of a forest ecosystem to respond to a disturbance by resisting damage and recovering quickly. Healthy forest ecosystems maintain their resilience and adapt to periodic disturbances with little change. Properties of the forest ecosystem such as climate, soils, topography and flora often control the resilience of a forest.

Maintenance of natural genetic and ecosystem diversity across the landscape is an integral component to ensure species maintain viability through their capacity to evolve and adapt to change. Maintenance of the natural range of ecosystems and the ability of their components to react to external forces and processes provides the equilibrium required for maintenance of species diversity (CCFM 2005). The fundamental requirement for the conservation of biological diversity is the in-situ conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings. The district's geographic location, topography and shallow soils make its forest ecosystems vulnerable to temperate extremes. These ecosystems are susceptible to development and comprehensive land use planning is required to ensure that biodiversity is maintained at the present level.

The primary natural disturbance factors attributed to boreal forests are fire and insects. Forest fires are frequent and extensive in Labrador and result in specific successional trends depending on the site type. Often, the spruce component is increased following fire, whereas other disturbance types such as insects and cutting often result in an increase in the fir component.

Human uses of the forest resources have had little influence on the overall forest structure. Fuel wood cutting has been a common practice however it is mostly localized around the communities. Small scale commercial harvesting has also occurred. Indicators can be used as measurable variables to report on disturbances, resilience and extant biomass for evaluation of maintenance and enhancement of forest ecosystem condition and productivity. Using the CCFM approach, (CCFM 2005) criteria and indicators will be selected to initiate measuring of these variables. Data for these indicators is considered attainable during the planning period.

Incidence of disturbance and stress refers to the frequency/severity of major biotic stresses. Depending on the particulars of the disturbance, stress can negatively or positively affect forest conditions over time.

Indicators for assessment of disturbance and stress on forest condition and productivity include:

- *Area and severity of fire damage*
- *Area and severity of blow down*
- *Area harvested*

1.4.2 Biodiversity

Biodiversity is described in the Canadian Biodiversity Strategy as the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

The decline of biodiversity is one of the most serious environmental threats facing humanity. This decline of ecosystem, species and genetic diversity, is thought to be aggravated by human activities, including deforestation on a global scale, at a rate that far exceeds natural processes (Natural Resources Canada, 1995).

District 22 is rich in a variety of species that inhabit the area. As described previously in detail by Meades 1990, large ungulates and predators along with an enormous variety of small mammals and avifauna are present. Currently eleven of the species present are listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).

The most recognizable form of biodiversity degradation is the change in population levels or even the extinction of species. The slowing of degradation is fundamental to conservation of species and involves the identification of species at risk and concerted efforts to conserve critical

habitat. The Province of Newfoundland and Labrador has passed legislation in the form of an Endangered Species Act to ensure the conservation of recovery and critical habitat. Potential risks from operational activities will be mitigated or eliminated by following environmental guidelines (Appendix III), respecting buffers on water ways and avoiding heavily populated areas. The management and protection of threatened and endangered species including recovery plans will be incorporated with other management strategies.

Many documents have indicated that species are more abundant in riparian areas (Decker, 2003). Riparian areas are characterized by the transition from aquatic to upland vegetation with the width varying depending upon many site factors such as slope, soils, and permanence. Often covering only a small area in a watershed, riparian areas are often more diverse, richer and more productive than upland ecosystems. The long-term stewardship of this critical ecosystem ensures habitat for fish and wildlife and reservoirs for biodiversity.

To ensure that planned activities do not affect ecosystem diversity in the district and to help support habitat protection the following indicators will be monitored.

1. Percent in area of forest types relative to historical conditions and total forest area.
2. Percent of area by forest type and age class.
3. Percent of area of each forest type in protected areas.
4. Percent of area in forested riparian areas.

Genetic diversity within a species is the foundation of all biodiversity. Assessing genetic diversity does not mean attempting to track every gene in the district 22 forests. It means designating and implementing practical measures that can maintain viable populations of all forest vegetation species and can utilize the genetic diversity of commercially important species to maximum benefit. Genetic diversity is the fundamental basis for the ability of populations (flora and fauna) to adapt to changing environmental conditions, therefore underlying both species and ecosystem diversity. These gene pools represent the years of natural selection for adaptation to local conditions.

The boreal forests in District 22 have evolved over time as even aged in response to disturbances such as fire and windstorms. This must be taken into consideration when determining the effects of forest management (including harvesting) on genetic diversity. The spatial patterns of clear felling should mimic natural disturbance across the landscape so that natural processes can continue. During this plan, various cutting designs and patterns will be implemented with the necessary monitoring and evaluation. Exact harvest patterns (which should mimic natural disturbances) within the operating areas will be identified in the annual work schedules.

The management actions of tree planting and pre-commercial thinning may also affect genetic diversity. However, most forest sites in district regenerate from seed sources already on or near the site. Sites which will be selected for planting are those where there is an insufficient

stocking of tree species to form a viable second growth forest to replace the one that was disturbed. During any planting, efforts will be made to plant native species from local seed sources on sites where they would be found naturally. The current practice, however, is to leave a representative proportion of all those woody tree species that are present in the stand before treatment.

It is impossible to plan for the conservation of biodiversity on a species-by-species basis, there are simply way too many to consider. A much more rational approach is to aim to maintain a variety of ecosystems which are necessary for the preservation of species. Protected areas are a vital component of any biodiversity strategy. Besides protection of various ecosystems, protected areas provide benchmarks to measure and guide management decisions. At the ecoregion level, diversity is reflected in Damman’s site classification and determined by soil parent material, topography and climate. From this, one can deduce that different ecoregions have different plant communities and differences in processes. The Canadian Forest Accord, National Forest Strategy and Canadian Biodiversity Strategy all propose to have representative area in each ecoregion protected. Within each ecoregion, the dominant forest types and associated wildlife have been documented by Meades 1990.

1.5 Forest Characterization

1.5.1 Land Classification

The protection of ecological values to ensure the sustainability of subsistence activities is very important. Often, landscape, watershed and stand level scales are used as successive scales to filter and identify important ecosystem functions within each level (Table 2).

TABLE 2 ECOLOGICAL PROTECTED AREA LEVELS

Level	Map Scale	Plan Terms	Sources	Examples
Landscape (course filter)	1:500,000 to 1:250,000	District & sub-district	Satellite information	Large areas not Scheduled for harvest
Watershed (regular filter)	1:50,000	Area of interest	Aerial photography	Entire watersheds, riparian buffers, major slopes
Stand (fine filter)	1:20,000 to 1:5,000	Harvest block	Ground surveys	Wildlife dwellings, small streams

Landscape protected areas are designed to protect large umbrella areas of major ecosystem and habitat types. In this plan, a large portion of the district is not considered for commercial activities. At

the next level, watershed features such as riparian buffers and core habitats are identified. Furthermore, several portions and entire watersheds and water supplies are protected from commercial activities. The final filter occurs at the stand level and is normally identified following pre-operational field surveys at very small scales. Identifiable stand level features include riparian buffers, waterfowl staging areas, wildlife dwellings, raptor nest buffers, and isolated stands and slopes. Additional reductions in the net commercial forest area are applied during the annual allowable cut calculations for such areas.

To facilitate more effective decision making on potential land use activities, resource managers utilize ecological land classification systems. Unlike classification systems used for other purposes, the intent of ecological land classification is to identify areas based on similar characteristics (vegetation type, climatic gradients, etc.).

Ecological land classification assists managers in identifying ecosystem patterns, assessing potential resources, conduct environmental analyses, forecast future conditions, and manage and monitor resources. The Canadian Ecological Land Classification System provides for seven levels of organization (scales) based on ecological principles. The Canada Land Inventory and the Forest Regions of Canada (Rowe, 1972) are both examples of large-scale ecological land classification systems that are widely used for Canada. Eco-regions, which are characterized by distinctive ecological responses to climate as expressed by vegetation, soil, water and fauna and are described at a scale from 1:300,000 to 1:1,000,000 are available for Newfoundland and Labrador.

Furthermore, the entire district has been classified based on satellite imagery (Labrador Multi-Resource Inventory). This inventory highlights vegetation cover types based on satellite imagery. The primary data source for the compilation of this database was from 1:1,000,000 scale Landsat Thematic Mapper colour composite transparencies. A total of 20 images were used to map the forested region of Labrador (North to 56°). The vegetation cover was delineated into several forest, disturbance, and wetland types and then was digitized. This scale of inventory is suitable for "course filter" analysis at landscape levels.

Only a very small portion of the district has been inventoried in a forest cover type inventory by the Forest Service (~2%). Further photography has been taken; however inventory data is not available at this time. By using color aerial photographs, the ground features are interpreted and delineated including height, species, age and productivity of the forests. The information is then verified by measuring ground plots which supply further information such as wildlife habitat and abundance, timber volumes, soil types, and ground vegetation to name a few. The annual allowable cut (AAC) is calculated entirely on the available forest cover type inventory (1992) that was completed by the Forest Service.

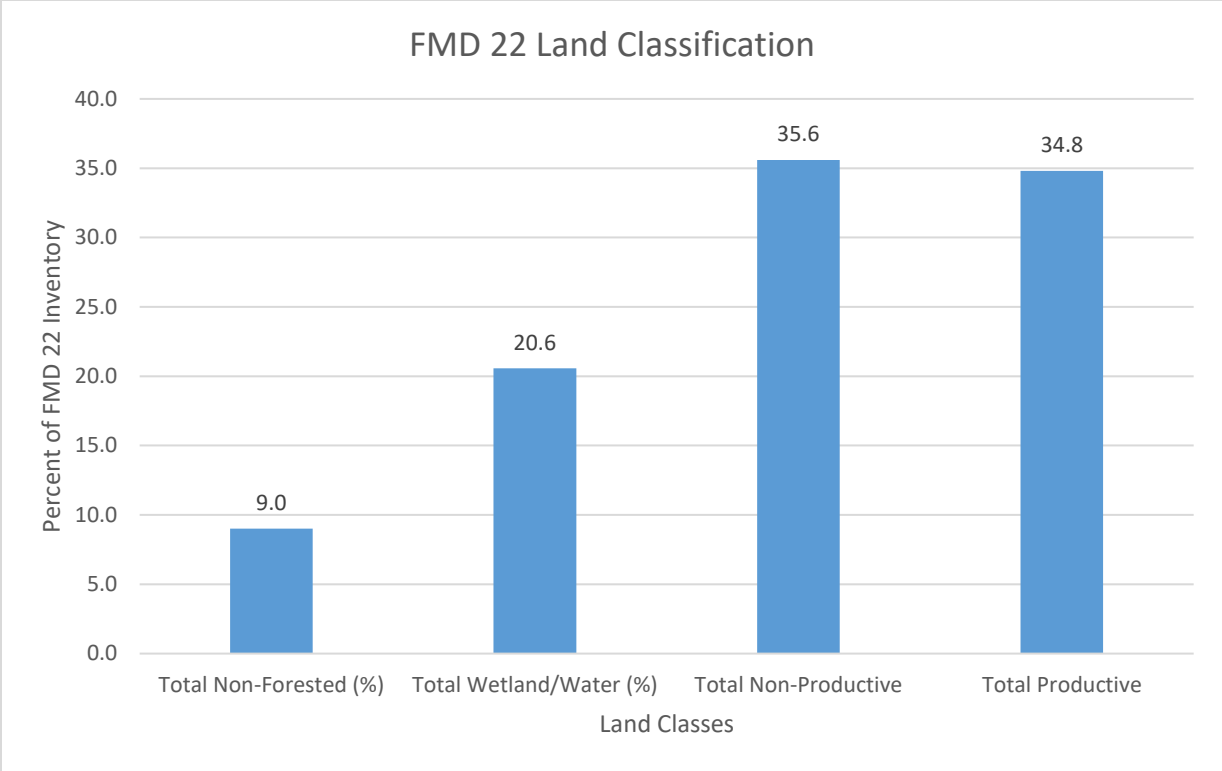


Figure 3: Land Class Breakdown for District 22

1.5.2 Age Class

Primarily even – aged stands greater than 141+ years old, form the dominant age class structure in this forest, although an extensive area has yet to be classified (Figure 4). Most forest sites are classed as poor to medium. Silviculture intervention may enhance future productivity on some sites, but how such treatments will affect the long rotation period (120 years) of forest stands in southeastern Labrador is not fully understood at this time.

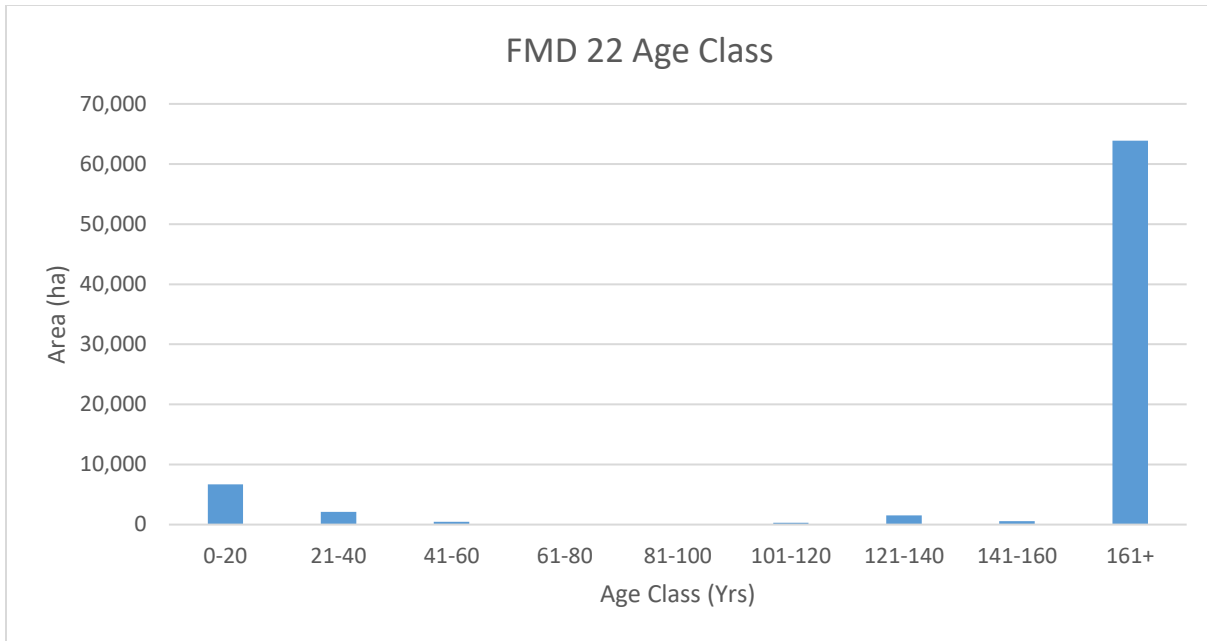


Figure 4: Age class distribution on productive sites in District 22 (1992 data)

1.5.3 Site Class

Many factors determine site class of productive forest including soil moisture, fertility, slope and geographic orientation. In District 22 medium and poor sites are most dominant, accounting for approximately 96% of the total productive forest sites. The distribution of each site class is illustrated in Figure 5. Based upon its northern location it is estimated that the mean annual increment of a good site is 2.4 m³/ha/yr, medium site 1.4 m³/ha/yr and poor site 0.8 m³/ha/yr. Site class often determines the limits of growth and along with the limits of existing harvesting and processing technologies this will define the limits within which commercial forest development can function in the District.

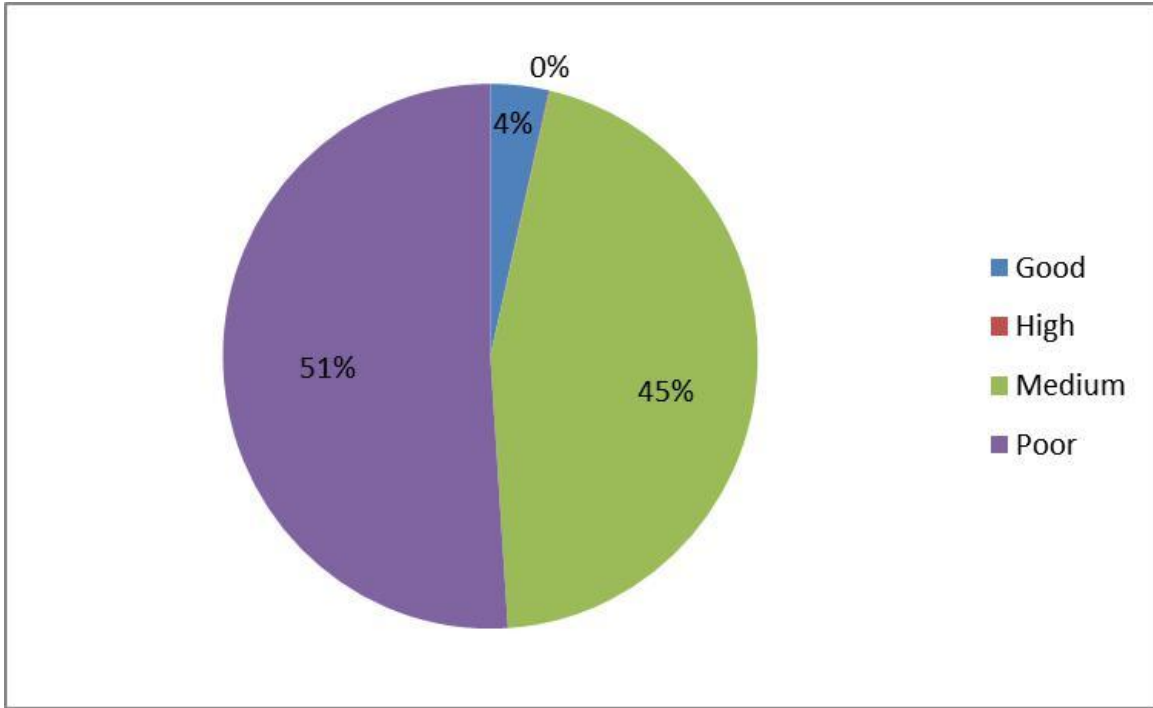


Figure 5: Site Class distribution on productive sites in District 22.

1.5.4 Species and Working Group

Black spruce (*Picea mariana*) is the most common tree species in the management district, based on area (approximately 92%). Balsam fir (*Abies balsamea*) constitutes approximately 2% of the volume, while other softwood and hardwood species make up the balance (Figure 6)

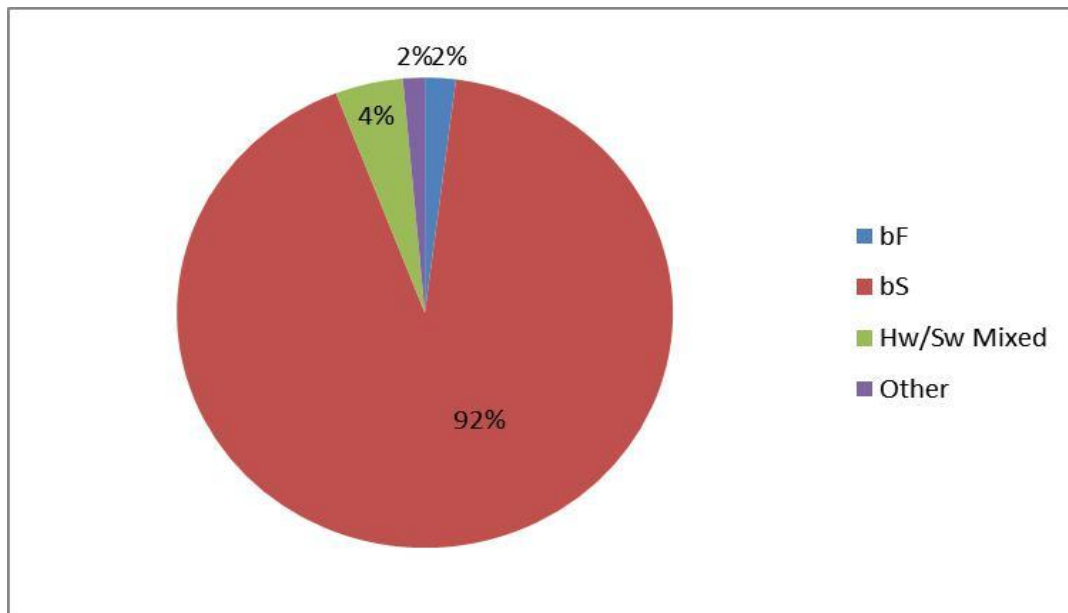


Figure 6: Working Group distribution on productive site in District 22

1.5.5 Forest Disturbances

1.5.5.1 Insect

The province actively participated in Phase II and Phase III of the Early Intervention Strategy to prevent the spread of Eastern Spruce Budworm populations since 2017. In the early years, Phase II of EIS the province concentrated its efforts on increasing survey efforts and increasing plot distribution on the province West Coast of the Island of Newfoundland or what is commonly referred to as the leading edge of the 'outbreak'. Commencing in 2020, coinciding with the beginning of the COVID-19 pandemic, the province began treating forested areas along the leading edge on the Great Northern Peninsula. While the province was successful in developing safe work practices to treat forested areas during the pandemic, other areas in Atlantic Canada did not treat that year.

During the summer of 2020, the province treated 32,063 hectares of forested land with an insecticide and at the same time witnessed the largest dispersal event from Atlantic Canada. Areas that had just received treatment received many immigrant moth populations from Atlantic Canada increasing local populations. Spruce Budworm female moths from Atlantic Canada laid half of their egg complement in Atlantic Canada, then dispersed to infest new areas. Weather patterns were ideal for long range transportation of female spruce budworm moths. Canadian Forestry Scientists tracked the dispersal of spruce female moths to the west coast of Newfoundland where the female spruce budworm moths laid the remaining half their egg complement in Newfoundland and Labrador. From the period of 2020 to 2025 the province treated 593,056 hectares with one or more application of insecticide.

SECTION 2 PAST ACTIVITIES

2.1 Forest Management District 22

2.1.1 Harvesting

The previous five-year forest management plan (2022- 2026) was an overall success. Activities remained consistent over each year of the planning period. The underlying management objective was to support the sustainable development of the forest ecosystem ensuring the general well-being of all resources for present and future generations. The fundamental objective of this was to provide maximum social and economic benefits from the forest ecosystem, while maintaining its integrity at all spatial scales.

2.1.1.1 Commercial

With the downturn of the forest industry globally and the closure of two newsprint mills in the province, commercial activities have since decreased in Labrador. District 22 has historically not been dependent on the forest industry. The limited commercial timber harvesting activities have been relatively stable at lower level over the past five years (Table 4).

TABLE 3 2022-2026 COMMERCIAL HARVEST DISTRICT 22

District 22 Crown		Core			Operational (Available)			Non-AAC Wood	
		AAC	Commercial	Deviation	AAC	Commercial	Deviation	Operational	Regulatory
SWD	2022	7,800.0	42.0	7,758.0					
	2023	7,800.0	23.0	7,777.0					
	2024	7,800.0	253.0	7,547.0					
	2025	7,800.0	23.0	7,777.0					
	2026	7,800.0	23.0	7,777.0					
	Sub-Total	39,000.0	364.0						
		Core			Operational (Available)			Non-AAC Wood	
		AAC	Commercial	Deviation	AAC	Commercial	Deviation	Operational	Regulatory
HWD	2022								
	2023								
	2024								
	2025								
	2026								
	Sub-Total								
District Total									

* 2026 Volumes estimated

Annual commercial harvesting permit numbers have been increasing over the last five years; however actual commercial harvest levels relating to “traditional” forestry use have remained very low (Table 3). Most of the commercial harvesting is happening as a result of clearing land for mine expansion projects/quarries as well as mineral exploration outside the inventoried area often requiring clearing of non-merchantable scrub only.

2.1.1.2 Domestic

Domestic harvesting is a more significant activity in the area. The five-year average (2022-2026) for the number of permits and volume issued per year are 322 and 7095 m³ respectively (Table 4). It is important to note that most of the area designated for domestic harvest is outside the inventoried area and thus not included in the AAC calculation.

TABLE 4 2022-2026 DOMESTIC HARVEST DISTRICT 22

District 22 Crown		Core			Operational (Available)			Non-AAC Wood	
		AAC	Domestic	Deviation	AAC	Domestic	Deviation	Operational	Regulatory
SWD	2022	N/A	6007						
	2023	N/A	6057						
	2024	N/A	5581						
	2025	N/A	5042						
	2026	N/A	5042						
	Sub-Total		27729						
		Core			Operational (Available)			Non-AAC Wood	
		AAC	Domestic	Deviation	AAC	Domestic	Deviation	Operational	Regulatory
HWD	2022	N/A	314						
	2023	N/A	303						
	2024	N/A	297						
	2025	N/A	265						
	2026	N/A	265						
	Sub-Total		1444						
District Total			29173						

* 2026 Volumes estimated

2.1.2 Silviculture

Silviculture has been limited because of a lack of large-scale disturbance (harvesting or natural disturbance). As a result, there were no silviculture projects conducted during 2022-2026.

2.1.3 Road Construction

Any of the forest access roads that exist in the district were constructed in the past through Government funding to provide access to previous commercial harvest blocks. During the past five-year planning period, 2022-2026, there was no new construction of road.

2.1.4 Natural Disturbance

2.1.4.1 Fire

Forty-seven forest fires were reported during the past five years. There were some major fire activity within this time frame with approximately 89,987.00 ha burnt. Some of these fires caused multiple residential evacuations and large-scale fire suppression responses. Although a large area of fire occurred, none of the commercial harvesting zones were affected. Given the size of the domestic zones, the fires never had a large impact on the ability to meet local demand.

2.1.4.2 Insect

While numbers of Spruce Budworm and Hemlock Looper on the island portion of the province trend upward, District 22 has not seen a similar increase in numbers during this time. No Insecticide treatments

have been administered in District 22 during the 2022-2026 planning period. District 22 will continue to monitor leaves of each during the 27-31 planning period.

SECTION 3 TIMBER SUPPLY ANALYSIS

3.1 Methodology

The annual allowable cut (AAC) can be defined as the maximum volume that can be harvested on an annual basis while maintaining a sustainable supply of timber and providing a landscape, which supports multiple values for future generations. Since the necessary growth and yield data required to run linear or other wood supply models are not yet calibrated for the district, the AAC was calculated using the following area and volume formula.

$$AAC (m^3/year) = \frac{\text{Net Commercial Forest Area (ha)} \times \text{Net Merchantable Volume (m}^3\text{)}}{\text{Rotation age}}$$

Where:

- **Net Commercial Forest Area** is the net landbase of commercial forest.
- **Rotation Age** is the time period (in years) required to establish and grow trees to a condition of maturity following disturbance.
- **Net Merchantable Volume** is the expected merchantable volume on a specified landbase taking into account losses for fire, waste and retention.
-

TABLE 5 NET COMMERCIAL FOREST AREA DETERMINATION

Landbase	Area (ha)	Softwood Volume (m ³)
Total District Area	8,032,669	N/A
Total Area (1992 inventory)	227,438	3,681,050
Productive Forest (1992 inventory)	44,350	3,681,050
Commercial Forest (1992 inventory)	18,422	2,339,594
Un-Alienated Commercial Forest (1992 inventory)	14,436	1,818,936
Net Commercial Forest (1992 Inventory)	10,007	1,260,882

Definitions and Assumptions

Productive Forest:

Stands that are capable of producing 35 m³/year at rotation. (All stands identified in inventory which have a volume associated with them).

Commercial Forest:

Stands (bF, bS, wS, sH) that contain a minimum softwood volume of 90 m³/ha. Stands less than 9m in height and less than 75% crown closure on poor sites are not considered commercial.

Un-Alienated Com. Forest: Isolated stands and sensitive areas were not included in AAC calculations. Area reductions were applied to the landbase using the GIS to account for:

- 30m forested buffers on rivers, lakes, streams.
- 100m forested buffers on major rivers.
- Stands located on slopes > 30%.
- 30m forested buffer on groomed snowmobile trails.
- Town buffers & water supplies.
- Parks and reserves.

Net Com. Forest: Total commercial forest with a 30% reduction applied to account for finer stand level features that require protection such as:

- Additional buffers as required on small streams.
- Localized steep slopes.
- Wildlife dwellings and habitat.
- Buffering or raptor nests.
- Cabin development areas.

Rotation Age

The age at which the mean annual increment of merchantable volume reaches its peak and yields the most volume per unit area per year is termed the rotation age. Normal yield tables show that rotation age increases as site quality decreases. They also show that the corresponding merchantable volume and mean annual increment decreases greatly from good to poor sites (USDA 1990). Averages for black spruce stands of three site classes in the boreal forest of Canada are as follows:

TABLE 6 BLACK SPRUCE ROTATION AGE

	Good	Medium	Poor
Rotation Age (years)	95	113	132
Merchantable Volume (m³/yr)	218	160	101
Mean Annual Increment (m³/ha)	2.3	1.4	0.8

Approximately 83% or more of the inventoried forest stand area in district 22 are dominated by black spruce (bS) stands. The proportion of site classes of bS forest stands is approximately 56% poor, 43% medium, and 1% good or high. The average gross merchantable volume for bS stands are approximately 93m³/ha. Considering these figures the best estimate of the rotation age for District 22 is 130 years.

Net Merchantable Volume Determination

The forest cover inventory used to derive the described land base, measures softwood and hardwood volumes per hectare of forest land. Analysis of 1:12,500 scale aerial photos identified height, species, age and productivity of the land base. Ground truthing plots were used to verify this information and furthermore the resulting inventory has specific volume/hectare values for all forest cover types. During the land base net-down exercise the commercial volume and the commercial land base areas are determined. The gross volume/hectare is found by using the following formula:

$$\text{Gross Volume/hectare} = \frac{\text{Net Commercial Volume}}{\text{Net Commercial Area}}$$

$$\begin{aligned}\text{Gross Volume/hectare} &= \frac{1,818,936 \text{ m}^3}{14,436 \text{ ha}} \\ &= 126 \text{ m}^3/\text{ha}\end{aligned}$$

This number is then further refined to account for retention, waste, cull and natural disturbances. This number, referred to as the Net Commercial Volume, is then used in the AAC calculations. The expected net downs for District 22 were applied to account for the following losses:

Annual Allowable Cut Calculation Deductions

Cull	14%
Residual Stands	6%
Harvesting Losses	5%
Fire	3%
<hr/>	
Total	28%

$$\begin{aligned}\text{Net merchantable volume/hectare} &= \text{Gross volume/hectare} - 28\% \text{ reduction} \\ &= 126 \text{ m}^3/\text{ha} - 35 \text{ m}^3/\text{ha} \\ &= 91 \text{ m}^3/\text{ha}\end{aligned}$$

AAC Calculations:

$$\frac{10,007 \text{ ha} \times 91 \text{ m}^3/\text{ha}}{130 \text{ yrs}} = 7004.9 \text{ m}^3/\text{year}$$

3.2 Forest Profile Dynamics

Due to the methodology used to calculate the annual allowable cut for District 22, changes or outputs of forest profile dynamics are not predicted.

3.3 AAC Adjustments

Due to the methodology used to calculate the annual allowable cut for District 22, annual allowable cut adjustments are not used.

3.4 GMV Volume Adjustments

During calculation of the net AAC the GMV (Gross Merchantable Volume) is further refined to account for retention, waste, cull and natural disturbances. This number, referred to as the Net Commercial Volume, is then used in the AAC calculations. The expected net downs for District 22 were applied to account for the following losses for each calculation:

Cull	14%
Residual Stands	6%
Harvesting Losses	5%
Fire	3%
<hr/>	
Total	28%

3.5 Spatial Blocking Adjustments

Due to the methodology used to calculate the annual allowable cut for District 22, spatial scheduling software is not used therefore spatial blocking adjustments are not required. Harvest blocks are identified in areas where stand volume meets minimum commercial volumes and road access is available or potentially available.

3.6 AAC Results and Outputs

Table 7 Annual Allowable Cut for District 22

Land Tenure		District #	Planning Unit	Softwood (m3/yr) Volume			Hardwood (m3/yr) Volume		
				Core	Const.	Sub-Total	Core	Constrained	Sub-Total
Crown	LAB	22	Lab City	7005	0	7005	0	0	0
			Total	7005	0	7005	0	0	0

3.6.1 Harvest Profile

Due to the methodology used to calculate the annual allowable cut for District 22, harvest profiling is not determined. When identifying commercial harvest areas, areas that fit the stand age, and height profile of the surrounding areas were identified if possible.

SECTION 4 CARBON ANALYSIS

4.1 Carbon in Our Forests

Forests remove carbon from the atmosphere in the form of carbon dioxide (CO₂). Through photosynthesis, carbon is extracted from the CO₂ to form glucose and other organic compounds which fuel the tree's biological processes and form structural biomolecules that constitute the tree's biomass. The process of removing CO₂ from the atmosphere and transforming it into a usable form is called carbon sequestration, while the incorporation and retention of the sequestered carbon within the trees' biomass is called carbon storage. The carbon remains stored in the trees until the tree dies and decays, is naturally disturbed, or the wood is harvested. The post-disturbance landscape carbon dynamics differ depending on the type of disturbance.

The main driver of forest carbon dynamics is the age class structure of the forest, resulting from the forest's disturbance history. Both carbon sequestration and storage are low in young forests as their photosynthetic capacity is limited from their smaller leaf area and lack of biomass accumulated. Middle-aged stands excel at carbon sequestration as this stage of succession undergoes rapid growth rates and biomass accumulation, requiring higher photosynthetic rates than at any other stage in development. By this stage, carbon storage has improved from the accumulation of biomass but is still progressing. Mature forests are important for carbon storage since they have the largest accumulated biomass that locks in the carbon they have sequestered throughout their lifetime. However, mature forests experience reduced growth rates and stand break-up through senescence, so carbon sequestration is limited to maintenance of existing biomass rather than producing new tissue. For these reasons, a balanced age class structure is optimal for maximizing the long-term carbon potential of a forest.

4.1.1 Modelling Carbon

A tree's biomass is closely related to its volume, which is a function of its height and DBH, with variability due to differences in wood densities across species. To convert the gross merchantable volume from our inventory database into stand-level carbon estimates, we applied species-specific allometric biomass expansion factors (Boudewyn et al., 2007). It is widely accepted in the forest carbon field that carbon comprises half of a tree's dry biomass and following this assumption allowed us to estimate the current carbon storage for the FMD. Stocked non-commercial stands (assumed to be coniferous scrub (CS)) had area-based coefficients (Boudewyn et al., 2007) applied instead of the previously described volume-based expansion factors. In districts with complete inventories, these calculations are performed using our Remsoft Woodstock wood supply model. However, for FMD 22, the calculations were completed manually

because the inventory was provided in tabular format. Non-stocked and disturbed stands do not have a leading species or merchantable volume assigned and therefore do not contribute to aboveground carbon stocks.

4.1.2 Carbon Analysis – District 22

FMD 22 stores approximately 3.09 megatonnes (Mt) of carbon in aboveground biomass (i.e., stem wood, bark, branches, and foliage), with 2.32 Mt in the commercial forest (48,016 ha) and 0.77 Mt within the non-commercial forest (59,428 ha). The age class distribution of the commercial landbase is skewed toward older stands, maximizing the present-day carbon stock due to their higher accumulated biomass (Figure 19a). Within the next two decades, a decline in the aboveground carbon stocks is guaranteed for FMD 22 as stands are either harvested or undergo natural mortality after surpassing age class 17. However, capturing imminent mortality through harvesting would accelerate forest renewal while reducing the slow release of carbon back into the atmosphere from the decay process following natural mortality.

Black spruce-dominated stands in age class 16 account for the highest levels of aboveground carbon storage (Figure 19a and Figure 19b). FMD 22 has an allowable annual cut (AAC) of 7,800 m³, with stands in age classes 14 and older containing an average volume of 120 m³/ha. At this yield level, harvesting the AAC would correspond to approximately 65 hectares annually. Using an average carbon yield of 55.07 tonnes per hectare for black spruce-dominated stands in age class 16, harvesting the full AAC would remove roughly 3,580 tonnes of aboveground carbon from the landbase each year. Initially, the regenerating stands replacing the harvested stands will cause the aboveground carbon stocks to decline, but as the younger stands mature, the carbon stocks will rebound as they sequester and store more carbon with age and biomass accumulation.

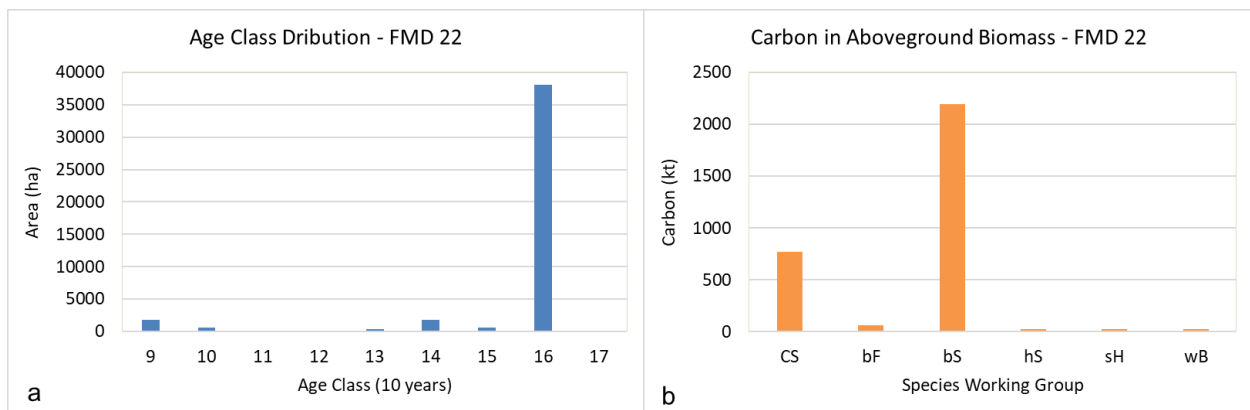


FIGURE 7: AGE CLASS DISTRIBUTION OF DISTRICT 22 AND CARBON IN ABOVEGROUND BIOMASS

SECTION 5 VALUES

5.1 Guiding Principles of Sustainability

Environmental, Economic, Political, Social, and Cultural are considered the five guiding principles of sustainability.

Environmental sustainability evaluates current and future ecosystem health. It ensures the needs of the present are obtained without compromising the ability of future generations' needs. Ecosystem health is determined by such factors as ecosystem integrity, biodiversity, productive capacity, and resiliency. The five-year operating plan strives to ensure these factors are maintained.

Economic sustainability requires forest resources to be managed efficiently and equitably among stakeholders. Economic development remains high priority for many of the residents within the province. However, economic development should only proceed with the incorporation of the other principles of sustainability.

Political sustainability refers to goals and management objectives being applicable, administrable, and practical. With the aid of public input and support, these goals and objectives must maintain these qualities into the future.

Social sustainability means fairness and equity to all interested stakeholders. The forest management strategy should not jeopardize the basic requirements of the public. As a result, public involvement/awareness, participation and decision-making are considered necessary for the development of proper forest management plans.

Cultural sustainability is attained by applying Newfoundland and Labrador's culture to the planning process. A forest management strategy cannot be successful without allowances within the strategy for traditional access and use of the land. For generations, the public of Newfoundland and Labrador have had free range in our pristine wilderness, a fact that cannot be ignored when planning for the zone. All are key interlocking components, and each must be maintained if sustainable development is to be properly achieved.

5.2 Value Structure

Scheduled commercial harvesting activity may be visible from the TLH route. The arrangement of the operating areas should minimize the visual impact of these operations. Skyline reserves will be maintained, and roads will be located on the lower slopes and buffered to reduce visibility wherever possible. Preliminary work has been done to start identifying the view shed of the TLH. The view shed has been produced for most of the proposed commercial areas in this five year plan and is considered a tool for managers to minimize visual effect of harvesting along the TLH. A digital elevation model (DEM) of a section along the TLH where commercial harvesting may occur was derived from 1:50 000 contours of the area. Using ArcGIS software, many observer points

along this section of the TLH were analyzed and the areas that were visible from the line-of-sight points were combined to form the view shed.

The view shed identified for a portion of the TLH is approximately 228,335 ha in total size. An analysis of the effect that removing this view shed from the landbase was completed and revealed that if removed approximately 7,346 ha of net commercial forest would be removed from the landbase resulting in a decrease in the Districts AAC, of approximately 1,900 m³/year. The view shed would not be excluded from the landbase analysis for the AAC calculation for this reason.

Wherever possible, the following guidelines for operations will be within the view shed:

- Through operational planning, operations scheduled within the outlined view shed should be done during winter months, to limit ground disturbance and to protect advance regeneration.

- Closer operational planning by the Department and operators, within the view shed should occur to strategically locate skid trails to limit ground disturbance and their view from the TLH. Also, planning to leave retention patches could minimize the view from the TLH as well.

- Areas harvested within the view shed should be priority for regeneration surveys and for scheduled silvicultural prescriptions, in particular planting.

Currently there are no commercial operating areas that identified on or near snowmobile trails groomed by the Labrador Winter Trails. There are several domestic blocks which are accessible by groomed trails; however, since domestic harvesting is on such a small scale and often a selective harvesting process, the visual impacts are anticipated to be negligible. Officers will monitor domestic operations along groomed trails. If conditions are warranted, view shed work on groomed snowmobile trails may be explored in future planning periods.

5.2.1 Hunting & Trapping

Through consultations, wildlife was identified as being a very important value and therefore protection for social and recreational purposes is warranted. Numerous species were identified as having significant domestic opportunities, the most mentioned being:

1. Fur bearers (marten, lynx, mink, otter)
2. Caribou
3. Black bear
4. Upland game (rabbit, grouse, partridge)
5. Waterfowl (ducks and geese)
6. Fish species

The interaction of each of the aforementioned species with harvesting activity varies. For example, species such as waterfowl and fish/fish habitat have very little interaction with forest

harvesting because their habitat requirements are protected by riparian buffers, proper stream crossings and harvesting methods. Additional buffer widths can be applied where it can be determined that critical fish or wildlife habitat may be affected.

Since hunting and trapping are an integral part of the northern lifestyle, it is anticipated that these activities will continue as normal with the proper permitting. Trapping and hunting grounds that were identified during consultation were taken into consideration when planning for harvest block locations to ensure minimum disturbance.

The following actions will attempt to ensure that the planned activities have minimal effect on hunting or trapping activities in the district.

Actions:

- 1. Implementation of Environmental Protection Guidelines and the Environmental Management System standards during all planned activities.*
- 2. Maintain regular contact with the Wildlife Division of the Department of Fisheries, Forestry and Agriculture regarding hunting and trapping issues.*
- 3. Continue to collect hunting and trapping information from local hunting/fishing associations within the district for incorporation into future plans.*

5.2.2 Species at Risk

The main purpose of existing Federal and Provincial legislation and programs is to prevent species from becoming extinct; outline necessary recovery actions; and promote the special protection of species at risk. The identification of local species at risk and the protection of their habitats are critical to their recovery. In Labrador, the species that have been identified as at risk can be found at: www.gov.nl.ca/fal/wildlife/endangeredspecies.

The following actions will attempt to ensure that the planned activities minimize the effects on species at risk within the district.

Actions:

- 1. Identify sensitive habitats of species at risk and implement Environmental Protection Guidelines.*
- 2. Participate in Federal and Provincial Endangered species programs.*
- 3. Communicate and work closely with any recovery team deemed necessary for the recovery of a species.*
- 4. Monitor, review and support research activities wherever possible.*

5.2.3 Non-Timber Forest Products

The forest environment also provides non-timber forest products (NTFP) that include medicines, extracts and foods that are derived from such items as barks, berries, roots, etc., which are consumed domestically or used frequently for crafts. These items are often harvested from both natural and disturbed areas of the ecosystem. Economic opportunities exist for the sale of these products or crafts.

Other NTFP derived from the forest environment are harder to measure since they are spiritual and traditional in nature. Many residents see value in a healthy ecosystem for the pure enjoyment of nature and the outdoors. Because of the vast size of the District this opportunity exists

The following actions will attempt to ensure that the effects are minimized on the continuation of harvesting non-timber forest products.

Actions:

- 1. Continuation of the collection and mapping of non-timber forest product information within the district for incorporation into future plans.*
- 2. Harvesting of non-timber forest products will continue throughout the life of this plan by the careful planning of forest harvest blocks.*

5.2.4 Potential Developments

The possibility exists for both small and large-scale developments within the district. The major possibility that exists is the expansion of the existing mega mining projects for world class iron deposits and other commercial minerals. This substantial deposit is expected to support operations long beyond the time identified in this plan. Furthermore, planned expansions in the operations will see considerable investments in the projects, increased annual production and increased employment opportunities in the district. The expansion of the mines will result in a larger footprint on the landscape by both expanding the mining area and surrounding communities thus reducing the amount of area available for harvest.

Other opportunities exist for development which could include commercial agriculture development, tourism and recreation expansion, and commercial timber harvesting and value-added processing,

The following actions will attempt to ensure that the planned activities have minimal effects on any potential developments.

Actions:

- 1. Participate in any consultations on potential new developments.*
- 2. Monitor any new developments to ensure that timber is utilized before any additional area is disturbed.*

5.2.5 Water Resources

The supply of clean water for residents and healthy water resources is a significant attribute of ecosystem health. Historically, the water resources have provided domestic food sources for residents and supported various commercial opportunities such as outfitting and recreation. The district has three water supply areas, of which to maintain water quality, there will be no domestic or commercial harvesting within them and buffers on forest activities will be applied as per the environmental protection guidelines (Appendix III).

The following actions will attempt to ensure that planned activities minimize effects on water resources or quality in the district.

Actions:

- 1. Ensure forest resource activities are conducted in a manner to maintain clean drinking water supplies for the communities.*
- 2. Ensure forest resource activities are conducted in a manner to protect the water quality of water bodies in the district.*
- 3. Maintain contact with and consult with the Department of Environment and Conservation - water resources division on any activities where water quality is of concern.*

5.2.6 Recreational Cabin Development

Since outdoor activities such as hunting, fishing and camping are so significant in the lifestyles of the residents, there is a significant demand for recreational cabins in the district. There are over 800 existing permitted cabins and tilts in the district with some areas more concentrated than others. High densities of roads, trails, railway and snowmobile trails have provided access to once remote areas. Furthermore, the availability of helicopters and float planes and the use of boats provide access to the remotest places in the district. The high number of existing cabins has limited the potential availability of appropriate sites in those popular locations.

Cabin development potential remains high with the following concerns: i) land use conflicts, ii) density and expansion concerns, iii) site sensitivity and iv) effects on critical habitat.

The following actions will attempt to ensure that planned activities minimize effects on recreational cabin development in the district.

Actions:

- 1. Crown lands applications will be reviewed on an individual basis for land use conflicts, density and expansion concerns, site sensitivity and effects on critical habitat. Concerns will be forwarded to the appropriate agency.*
- 2. Environmental protection guidelines will be applied to all approved cabin sites.*

5.2.7 Timber Values

The forest resource in the district provides many domestic and commercial timber values to residents. Domestically timber is important to residents to heat homes and cabins during long cold winters and to provide building materials. Commercial harvesting activities exist in the district on a relatively limited scale. Both commercial and domestic harvesting activities will continue during this five year plan. Specific areas have been identified for both and described further in this document.

The following actions will attempt to ensure that the planned activities minimize the effect on domestic harvesting of timber in the district.

Actions:

- 1. Conservation Officers will monitor the amount and locations of domestic harvesting.*
- 2. Conservation Officers will apply and enforce applicable legislation and environmental protection guidelines on all inspected operations.*

5.2.8 Tourism and Outfitting

Commercial tourism and outfitting development continue to be a viable component of the resource sector in District 22. Existing operations take advantage of the diverse wildlife resources, sport-fishing opportunities and pristine areas for ecotourism opportunities. Access to remote areas is easily gained with snowmobiles, boats or even float planes and helicopters. Although the potential remains high for expansion and further development, careful planning is required to meet needs and mitigate possible negative impacts.

The following actions will attempt to ensure that planned activities minimize effects on tourism and outfitting development in the district.

Actions:

- 1. Crown lands applications will be reviewed on an individual basis for land use*

conflicts, density and expansion concerns, site sensitivity and effects on critical habitat. Concerns will be forwarded to the appropriate agency.

2. Environmental protection guidelines will be applied to all approved outfitting sites.

3. Monitor and participate in any consultations on existing or potential new tourism or outfitting developments.

5.2.9 Parks and Reserves

Significant natural features, habitat types and landscapes are represented across the province. The protection of these areas ensures conservation while providing research benchmarks, recreation, education and ecotourism opportunities in the province.

District 22 has one legislated ecological reserve site, the Redfir Lake – Kapitagas Channel. This area contains the only known natural stands of Jack Pine (*Pinus banksiana Lamb.*) in the province. First recognized by the Department of Forestry in a submission in 1988 to establish a crown land reserve, Redfir Lake – Kapitagas was declared an ecological Reserve in 1999.

Located in southwestern Labrador, south of Ashuanipi Lake, the reserve consists of two areas; neither of the areas is accessible by road. This reserve holds a high level of significance at Provincial and National levels due to its outlying position, outside of natural range, for jack pine, of the boreal forest zone and its location between two forest regions (mid subarctic and low subarctic).

Established management policies aim to preserve the natural jack pine ecosystem while providing opportunities for public education and scientific research. Furthermore, the traditional activities of hunting, trapping and snowmobiling can occur in the area as there is no indication of any direct negative impacts. Timber harvesting, however, is not permitted in the ecological area and is not scheduled under this plan.

In addition, District 22 has one park reserve, Duley Lake Provincial Park, which is approximately 7 km² in size and located ten kilometers south of Labrador City. The main purpose of this park is to protect the open lichen woodland ecosystems which are characteristic of the mid subarctic forest ecoregion. Even though it is titled a park reserve, the park is not open to camping. Furthermore, timber harvesting is not permitted nor scheduled under this plan.

5.2.10 Mining, Mineral Exploration and Quarrying

Mineral exploration, mining, and quarrying are recognized as separate and distinct activities, each of which is approved and regulated under a separate piece of legislation.

Mineral exploration activities may consist of prospecting, geological mapping, grid line-cutting, geochemical surveys, ground-based and airborne geophysical surveys, the preparation and use of access

trails, mechanized trenching, diamond drilling, and – in remote areas – the preparation and use of campsites.

Mineral exploration takes place province-wide and is a significant contributor to the provincial economy, particularly in rural areas.

There are many active quarries throughout the province which generate significant royalties and which provide the raw material for the development and maintenance of infrastructure such as highways, building lots, and concrete.

There are several active mines in the province at any given time and mining represents a major component of the provincial economy.

Critical Elements:

- Forest Ecosystem
 - Mining, quarrying, and mineral exploration activities can have potential negative impacts to Forest Ecosystems and future Wood supply calculations. Mining and quarrying represent permanent (but sequenced – not all at once) alterations to the landscape whereas mineral exploration activities at most involve temporary disturbance. Each activity is subject to rehabilitation requirements.
- Utilization of Timber Resource
 - When exploration activity occurs, merchantable trees may need to be harvested to gain access to work sites. Under the forestry act, all merchantable trees can only be removed with a cutting permit and that holders of a cutting permit must utilize all portions of the tree to a top diameter of 8cm (outside bark). Section 18 of cutting of timber regulations state that all timber cut shall be removed from the cutting area to a roadway while harvesting operations are in progress unless otherwise specified in the cutting permit.
- Additional:
 - The Forestry Branch will consult with the Mining and Mineral Development Branch in determining appropriate silviculture buffer distances from the boundaries of sites covered by a quarry permit or quarry lease. In many cases, 100 meters is an appropriate buffer distance that will accommodate discrepancies in plotting. However, in other cases, there may be valuable aggregate resources present and expectations that the area will see proposals for new quarry developments in the foreseeable future, in which case a buffer zone should be specially planned in consultation with Mines. In other cases, where quarry development is expected to proceed slowly, silviculture buffer distances may be much reduced.
 - For mine sites (including all associated infrastructure), an appropriate silviculture buffer distance should be chosen in consultation with the site operator and the Mining and Mineral Development Branch.

- Mineral exploration activity that proposes to explore or develop within a silviculturally treated area must be undertaken with minimal disturbance and under approval of Forestry Branch. A standard condition has been developed by the Mineral Development Branch and Forestry Services Branch to include as a condition in mineral exploration approvals document where silviculture treatments may be impacted.
- Mineral exploration and/or development on mineral licenses will not be impeded and will follow government policy. Specific proposed forest management activities are identified in annual operating plans for each upcoming calendar year.
- Should future quarry or mineral resource developments or exploration programs (i.e., new quarry development, existing quarry expansion, new mine development, exploration for quarry materials, or mineral exploration) be considered by the Forestry Services Branch as having the potential to cause a significant impact on the forest resource and forest resource users, the Forestry Services Branch will work closely with the Mining and Mineral Development Branch and the proponent to ensure that mutual impacts are minimized.
- For road construction, quarry permits or quarry leases are required only for aggregate material taken outside of the road right-of-way.
- Non-compliance with exploration permits identified by Forestry Branch will be passed to Mining and Mineral Development Branch.
- Many forest access roads and bridges are used by other land users, among them parties carrying out mineral exploration or quarrying. Where possible, the Forestry Services Branch will forward plans to decommission roads or bridges as a matter of course to ensure that all road/bridge rehabilitation and decommissioning plans are reviewed to consider whether mineral exploration, quarrying, or mining may be affected. Plans should be forwarded to MinesBranchReferrals@gov.nl.ca

The guiding principles for Forest Ecosystem, Utilization of Timber Resource, and additional comments will apply to all crown operations within the province

SECTION 6 MITIGATIONS

6.1 General

SFM follows an adaptive management process. The best management practices adopted from previous planning processes will be incorporated in this plan, several of these include:

- A 30 m buffer will be maintained on lakes and both sides of rivers or brooks that are shown on 1:50,000 topographic maps. Brooks that are found within proposed cut blocks that are not identified on 1:50,000 topographic maps will be evaluated as per the Environmental Protection Guidelines.
- There will be no cutting buffer within 100 meters of a cabin development area and 30 meters from an approved cabin license.
- Scheduled salmon rivers will be evaluated on a site-by-site basis, and buffers will vary in width from 30 -100 meters.
- No forestry activity is to occur within 800 meters of a bald eagle or osprey nest during the nesting season (March 15 to July 31) and 200 meters during the remainder of the year.
- Within protected water supplies, there will be no cutting within 150 meters of the intake pond or stream and no cutting within 75 meters of the main river channel. There will be no cutting within 50 meters of all ponds and streams flowing into the intake pond or stream.
- All forest activities, including road construction, harvesting and silviculture will follow the most current Environmental Protection Guidelines for Forest Operations in Newfoundland and Labrador.

SECTION 7 STAKEHOLDER CONSULTATION

7.1 Planning Objectives

Forest Resource managers in Canada are striving for a society that successfully integrates economic, environmental and social considerations into all resource-related decision making. Since the early 1990's, there has been a country-wide shift from single resource management to a more comprehensive approach of forest ecosystem management. Sustainable Forest Management (SFM) must be balanced considering social, economic, and environmental issues. In the context of SFM, this shift has resulted in a move from the traditional narrow focus of timber management, to incorporate non-timber values into the management planning framework. Another term that has become closely associated with SFM is "sustainable development" or in this case "sustainable forests", which not only considers the social, cultural, economic, and environmental benefits of the present, but those of future generations as well. Involvement of Interested Stakeholders into the five-year planning process is recognized by the Forestry Services Branch as a key component to achieving sustainable development.

As a result of the 1995 Environmental Preview Report, the Forestry Services Branch adopted an adaptive management planning process, which has three objectives:

1. Establish a productive planning framework to include all stakeholders. An effective planning framework must have information and issues defined at the beginning of the process.

2. Learn more about forest ecosystems while they are being actively managed (i.e. adaptive management). Adaptive management incorporates strategies which help us learn about the forest ecosystem and deal with uncertainties.
3. Establish an ecosystem approach to forest management which integrates the scientific knowledge of ecological relations and limits of growth with social values. This will help to attain the goal of sustaining natural ecosystem integrity and health over the long term.

Adaptive management makes decisions based on input from interested stakeholders and establishes a continuous learning program. The adaptive approach allows us to communicate, share information and learn about forests being managed. This sharing of information, both old and new, then provides the flexibility necessary to adjust to changes and to set new goals. Such interaction is an absolute necessity for a subject as complex as an ecosystem.

7.2 Stakeholder Involvement

Since the mid 1990's, for each five-year plan, the Forestry Services Branch embarked upon a rigorous public consultation process involving a series of meetings spanning a number of months at an established venue, where interested stakeholders could discuss a range of forest management issues at an operational level.

With respect to the strategic level, in 2025, the Forestry Services Branch released a 10-year Provincial Sustainable Forest Management Strategy (PSFMS) Document (2025-2035), which emerged through wide consultation with citizens of the Province. The 2025-2035 PSFMS builds on the strengths of the previous strategy plans and uses a landscape-scale planning approach to implement the progressive and innovative ecological policies required for Sustainable Forest Management (SFM). The strategy builds on the strengths of the many modern and high-quality forest management programs that are currently being implemented in this province to ensure a vibrant and competitive forest industry.

Considering the many five-year plans successfully implemented within the province since the mid 1990's through public consultation processes and the recent PSFMS developed through public consultations, The Forestry Services Branch strives to improve its methods to garner advice from the public while also mitigating land-use conflicts. To this effect, as new five-year plans are being developed and implemented provincially, relevant issues raised from previous planning processes are considered the foundation of the new plans.

In 2026, in addition to transferring issues/concerns/mitigations from previous planning processes, a revised approach of stakeholder involvement for the development of this plan was implemented. The plan will be available for public comment through the Engage NL online resource. Known interested stakeholders from previous planning processes will be engaged on a "one-on-one" basis to evaluate potential activity prior to the plan submission to the Environmental Assessment Process. Given the very low harvest levels in the previous 5 years and the fact that

there has been no change in proposed domestic or commercial harvest areas over several planning periods, it is expected that stakeholder concerns will be very similar for this plan. The results of previous stakeholder involvement are identified in the Mitigations Tables (Appendix 3 & 4).

SECTION 8 MANAGEMENT OBJECTIVES AND STRATEGIES

8.1 Harvesting

8.1.1 Commercial

Commercial operations will be confined to the seven identified blocks in the plan. In general, mechanical harvesters and conventional harvesting methods will be used in commercial areas. Selective operations will be done manually using chainsaw and will mainly operate during the winter months. It is anticipated that all commercial harvesting will be through the clearcut silvicultural system with the retention of non-merchantable and wildlife trees.

8.1.2 Domestic

Domestic harvesting levels over the past five years have remained relatively consistent from the previous planning period. Approximately 7000 m³ from 2012-2026. Approximately 35,000 m³ is estimated to be sufficient to meet district domestic requirements for the next five years. The majority of domestic cutting will occur near communities in the district. Majority of the domestic wood harvested will be during winter months with snowmobile and chainsaw. This harvesting method will have little environmental effect and ground disturbance within the domestic areas.

8.1.3 Hardwoods

Residents also use white birch (*Betula papyrifera*) for fuelwood and value-added products such as snowshoes. For this, and other domestic uses, white birch within the defined domestic harvesting areas is available for harvest, providing all other conditions (ex. buffers) are adhered to. It is requested that straight stemmed trees with clear boles not be harvested for firewood and left standing for future value-added opportunities.

8.2 Silviculture

Silviculture refers to the theory and practice of controlling the establishment, composition, growth and quality of forest stands to achieve the objectives of management (Smith, Larson, Kelty and Ashton 1997). Two of the most common techniques that are associated with this practice are planting and thinning.

8.2.1 Forest Renewal

The silviculture program in District 22 will focus primarily on monitoring and research. Burn areas not adequately regenerating will be treated as candidate areas for planting. Any stands harvested during this plan will be located within the proposed commercial blocks outlined in maps 4 through 10. Selection of the species to be planted will be highly dependent upon the pre-disturbance stand structure and will be dealt with on a site-specific basis.

Based upon observations in the district and in other areas of the region, it is anticipated that most areas when harvested, will regenerate naturally within a five-year establishment period. Harvested areas will be monitored for regeneration, and detailed surveys will be conducted in areas where regeneration appears inadequate.

Research should focus on silviculture techniques that will enhance natural regeneration. Potential projects include:

1. Seed tree retention
2. Modification of harvesting plans
3. Investigation of various site preparations techniques
4. Species trials
5. Past plantation assessments

8.2.2 Forest Improvement

These areas may also become suitable areas for pre-commercial thinning, hardwood management, or require site preparation in the operating period covered by this plan. Further refinements to each project will be described in the Annual Work Schedules developed each year.

8.3 Access Roads

The system of resource access roads in the district is currently developed for the purpose of mining and exploration work and not for commercial forestry operations.

Road network construction is essential to the success of harvesting (commercial) operations, silviculture treatments and fire suppression in the district. In the past, very little road construction was conducted in District 22 under the Provincial access road program, under the Forest Service. The anticipated forest access road network to access the commercial harvesting areas for this operating period is summarized in table 9.3 and appended in map 11. Based upon current construction costs, more than one million dollars is required. Construction each year will depend on the amount of money available in the roads budget.

8.4 Forest Protection

8.4.1 Insects and Disease

Protection of the region's forests and related values continue to be a priority in Labrador. The hemlock looper insect control program has not been required since 2009 due to low insect numbers. No treatments are planned during this operating plan period due to expected low

numbers. Monitoring for insects will continue with aerial and ground reconnaissance being conducted. The spruce budworm has caused defoliation in the Goose Bay area but there is little recent evidence of damage in this district. Multiple Spruce Budworm and Hemlock Looper pheromone testing sites were set up within the district during the last planning period to more closely monitor activity of those species in the area.

8.4.2 Fire

Resource protection, in particular fire suppression, is necessary to protect Labrador's forest resource and is considered an essential operational activity. Even though large fires are uncommon within District 22, forest fire occurrence is unpredictable. As is the trend across the province and all of Canada, fire activity is on the rise, therefore we must be prepared to respond quickly to reduce the loss of valuable commercial, recreational and non-commercial values on the landscape.

To determine initial attack strategies the FMD 22 has been loosely sub-divided into the following priority zones: 1) life, 2) property, 3) resources, 4) other. Routine fire patrols are to be performed regularly in District 22 by ground, fixed wing aircraft, water bomber and helicopter.

8.4.3 Windthrow

Due to the old age class structure of the forests in District 22, areas of wind throw in the area is highly likely. Areas of wind throw have been observed on small scales throughout the district however with changing climate conditions with increased wind speeds and occurrences, wind throw will be more prevalent in the District over the next five years. Identified commercial blocks have targeted some of the oldest stands first to try to salvage the wood before it can blow down. Should the District experience an excess of windthrow, additional measures will be considered. Existing measures for domestic permit holders include wind throw harvest outside of a domestic block with District Manager approval.

8.5 Environmental Protection

8.5.1 General Environment

The Department of Forestry, Agriculture and Lands have developed an Environmental Management System (EMS) that is registered with the International Standards Organization (ISO). As part of this process, an EMS Policy was developed, and proper operating procedures were developed for various forest management activities. Initial registration was on December 17, 2015, and through regular monitoring and audits (internal and external), the EMS remains registered. Under the EMS, the department has developed stringent operating procedures for fuel handling, working around waterbodies, and overall pollution prevention. In addition, inspection programs are implemented to evaluate forest operations and rectify any deviations from established protocols.

To ensure forestry activity is conducted to minimize any potential negative impacts to the environment, operating procedures and best management practices called Environmental Protection Guidelines (EPG's) have been developed and implemented across the province. Highlights of measures to avoid these impacts include no activity buffer zones, modification of harvesting design and equipment, avoidance of sensitive site during critical periods, consultation with other regulatory agencies, and monitoring.

Through implementation of the EMS and the EPG's, the department strives to be responsible stewards of the land base. Also, the programs illustrated in this document relating to forest protection from Insects and Fires, help to maintain a forested land base. As indicated in previous sections, harvested sites are evaluated for regeneration potential, and proper reforestation techniques are implemented to facilitate tree growth. Maintaining and achieving a stocked forest at the earliest timeframe helps provide carbon storage.

8.5.2 Surveys

All stakeholders, including the Forest Service, acknowledge the information gap which exists in Labrador. Currently, little to no research has been conducted in the immediate area making management decisions cumbersome. In consultation with stakeholders, subject to funding, the Forest Service plans to initiate several smaller research projects over the next five-year period. These projects will provide relevant site-specific information, which can be used for management decisions and processes during the next planning period.

Another important monitoring mechanism that is required under the current management planning process is the preparation of annual work schedules. These plans will be subject to review by the planning team and the public. This will provide an opportunity for stakeholders to evaluate the plan progress and recommend necessary changes.

Utilization surveys will be conducted on both commercial and domestic cutovers to ensure loss of merchantable timber is minimized. Results of these surveys will be used to evaluate the expected volume in an operating area compared to those attained. The results of this survey will help refine inventory deductions in future wood supply analysis.

Reconnaissance and intensive regeneration surveys will be conducted on commercial cutovers in this upcoming five-year period, as well as any created in the past five years to determine the requirement for silvicultural activity. Reconnaissance surveys will be completed on regenerating stands to determine the suitability for pre-commercial thinning.

8.6 Information and Education

Information and education are key elements to providing active and effective participation in the planning process at all levels. Through interaction with various user groups and the public, a better understanding of one's values and positions is gained. The more we know about other values and their

location, the better the ability to mitigate any potential negative impacts. Districts within the zone will continue to educate the public and engage in meaningful consultations with interested stakeholders where applicable. Annual National Forest Week activities provide a great opportunity for interested individuals to gain a greater understanding of the Provinces Forest. Sources of information can include:

- Government website
- Field trips
- School visits
- General day-to-day contact

SECTION 9 PROPOSED ACTIVITIES

In general, commercial and domestic harvesting activities will take place during this planning period at the level of 7,000 m³/year. Commercial activities will be scheduled to occur in seven identified operating blocks. Most of the domestic harvesting will take place near the communities. There are no areas identified for silvicultural treatments during this planning period, mainly due to the absence of available area. Silvicultural activities will focus on monitoring and research with the intent to produce a long-term silviculture strategy for the district. A summary of the proposed activities scheduled for this operating period (2027-2031) is detailed in Appendix 1.

9.1 Harvesting

All timber harvesting operations are subject to the environmental protection guidelines, which were developed from scientific literature, local stakeholders and input from various Federal or Provincial departments. Furthermore, all harvesting is also subject to permitting, permit conditions, requirements outlined in this document or the Provincial strategy document.

9.1.1 Commercial

Commercial harvesting permits are issued for the time period of January 1 – December 31 on an annual basis. These permits are issued from the district office and subject to review prior to approval.

Seven commercial blocks have been outlined in which all commercial harvesting will occur (Appendix 1). Further refinements of the operating blocks to account for site specific features will be made in the annual work schedule prior to the beginning of each operating period. Additional net downs of -20% have been applied to the anticipated volume from each operating block to account for stand level features that require protection. (Table 9).

TABLE 8 FMD 22 PROPOSED COMMERCIAL HARVESTING

Operating Area FMD 22				Proposed Commercial Harvest Volume (m ³)							
				SOFTWOOD				HARDWOOD			
Name	OA	Tenure	Area (ha)	Number of Permits	Core	Operationally Constrained	Total	Non AAC	Core HW	Incidental HW	Total
Labrador City 1	CC-22-001	Crown	114		8,980	0	8,980	0	412	0	412
Labrador City 2	CC-22-002	Crown	68		5,337	0	5,337	0	562	0	562
Labrador City 3	CC-22-003	Crown	64		4,550	0	4,550	0	81	0	81
Labrador City 4	CC-22-004	Crown	54		4,452	0	4,452	0	31	0	31
Labrador City 5	CC-22-005	Crown	52		3,935	0	3,935	0	30	0	30
Labrador City 6	CC-22-006	Crown	111		6,479	0	6,479	0	84	0	84
Ranger Lake	CC-22-207	Crown	414		24,840	0	24,840	0	0	0	0
			TOTAL:		877		57,573	0	57,573	0	1,220

9.1.2 Domestic

Thirteen areas have been identified and mapped for domestic harvesting in District 22 (Maps 12-24). Domestic harvesting will continue under Provincial domestic permit for firewood, sawlogs and building materials. Domestic harvest blocks Poisson River, Baikie Lake & Lobstick will be temporarily closed for harvesting from the period of May 15 – September 30 due to the known caribou range of the Red Wine and Lac Joseph herds. It is expected that the numbers will remain the same during the life of this plan. Permits are available from the Forestry Services Branch office in Wabush.

A maximum volume of 22m³ can be issued on each permit and each permit is valid from January 1 – December 31 each year, unless otherwise stated. The Forest Service will work with domestic harvesters to gather further information on harvesting volumes and locations. Further information will be gathered during permit returns, spot checks and random surveys. Each permit is subject to conditions (Appendix 5). Small volumes of wood are expected to be harvested outside of the identified domestic areas by cabin owners. Anticipated permit numbers (Table 10) are based on previous five-year average.

TABLE 9 PROPOSED DOMESTIC HARVESTING

Proposed Domestic Harvest FMD 22				Estimated 5 Year Volume (m3)	
OA Name	OA #	Area (ha)	Number of Permits	Softwood	Hardwood
A - O'Connells	CC-22-501	17,924	29	390	31
B - Carol Lake	CC-22-502	64,681	81	1,113	90
C - Duley Lake	CC-22-503	39,544	262	3,530	247
D - Blueberry Hill	CC-22-504	21,875	405	6,085	475
E - Moose Head	CC-22-505	16,546	310	4,319	309
F - Mount Albert	CC-22-506	1,123,115	31	406	31
G - Shabogamo	CC-22-507	77,878	504	6,839	514
H - Demile	CC-22-508	16,488	176	2,346	186
I - Ashuanipi	CC-22-509	21,061	90	1,205	84
J - Wading River	CC-22-510	480,344	27	379	30
K - Poisson River	CC-22-511	1,057,214	33	430	33
L - Baikie Lake	CC-22-512	588,319	60	890	57
M - Lobstick	CC-22-513	2,682,699	66	863	63
	TOTAL:	6,207,688	2,074	28,795	2,150

9.1.2 Silviculture

Silviculture refers to the theory and practice of controlling the establishment, composition, growth and quality of forest stands to achieve the objectives of management (Smith, Larson, Kelty and Ashton, 1997). Two of the most common techniques in the province are planting and pre-commercial thinning.

In the past, forest stands in District 22 have been subject to large scale disturbances such as fire. The occurrence of major fires in the district has had a strong influence on existing distribution of vegetation types including lichen woodlands and birch stands. Foster (1983) reported a strong correlation between fire distribution over the past 110 years, and the location of lichen woodlands and birch stands.

Regeneration surveys completed in the district have indicated that the majority of the harvested areas adequately regenerate within a five-year period, and this can be easily seen on recent cutovers in the district. Although no regeneration surveys have been conducted in burn areas, observations have indicated that some of these areas have not been regenerating as fast. Many factors may have contributed to this slower regeneration time such as pre-disturbance site characteristics,

seed sources, repetitive burns or fire temperatures. Harvested areas will be monitored and detailed regeneration surveys will be conducted in areas where regeneration appears to be inadequate three to five years after the disturbance.

Stands harvested in the past five years or those scheduled for harvest in this plan or burn areas not adequately regenerating will be treated as candidate areas for planting. Any stands harvested during this plan will be located within the proposed commercial blocks outlined in map (Appendix 1). Selection of the species to be planted will be highly dependent upon the pre-disturbance stand structure and will be dealt with on a site-specific basis.

9.1.3 Primary Access Roads and Bridges

Operational roads (secondary or spur) are not identified in this five-year plan. However they will be necessary to ensure that timber scheduled for harvest is fully accessed. Operators will have to construct short spur roads to access all timber in each harvesting block. Royalty reductions, as per regulations, are offered as incentive for commercial operators to construct their own access. These roads are subject to established environmental standards and are subject to approval by District staff. Operator-built roads will be identified during the preparation of the annual work schedules.

Due to the relative lack of existing forest access roads, decommissioning was not considered by the stakeholders committee during this planning period. A detailed review of the access roads program will be undertaken towards the end of the planning period to establish whether decommissioning will be required during the next planning horizon. Individual operators will be expected to rehabilitate extraction trails to a standard acceptable to district guidelines.

Road construction activity will be carried out as per Departmental specifications and the Environmental Protection Guidelines, which are provided in appendix III. Under section 48 of the *Water Resources Act*, certificates of approval will be obtained from the Water Resources Management Division for any culvert or bridge crossing. In addition, approval under section 5(1) of the *Navigable Waters Act* (NWPA) will also be obtained for any water crossing prior to the commencement of any work. Wherever possible, bottomless culverts will be used on all fish bearing streams (1.0 m or greater). The Department will continue to work with the Department of Environment and Conservation and the Department of Fisheries and Oceans to ensure unimpeded fish passage in all stream crossings involved in this and other operating plans.

TABLE 10 PROPOSED ROAD CONSTRUCTION

Area Name	OA #	Construction (Length km)	Reconstruction (Length Km)	Water Crossings	
				Culvers	Bridges
Labrador City 1	CC-22-001	1.9	0	2	0
Labrador City 2	CC-22-002	1	0	0	0
Labrador City 3	CC-22-003	2.6	0	0	0
Labrador City 5	CC-22-005	1.3	0	0	0
Labrador City 6	CC-22-006	2.2	0	1	0
	Total:	9	0	3	0

9.1.4 Activities in Protected Water Supply Areas

There will be no commercial or domestic harvesting scheduled or permitted in either of the protected water supply areas. Furthermore, these protected areas will be identified on domestic maps supplied to harvesters and identified and enforced as no cutting areas.

SECTION 10 PLAN ADMINISTRATION

10.1 Monitoring

At minimum the public will be updated on forest activities bi-annually. The main focus of the updates will be to report on activities and evaluate the overall progress towards the long term goals outlined in this document and the *Provincial Sustainable Forest Management Strategy 2025* and make suggestions where necessary. The Forest Service will prepare an annual work schedule for each operating year.

Annual work schedules will be prepared for each year outlined in this plan. They will provide further details on each activity and may be subject to further public review by the planning team and public.

An adaptive management approach will be applied to planned forest activities in the district. This will allow for the continual improvement of activities set out in the plan.

All stakeholders acknowledge the information gap which exists and the low availability of base line data. This data is identified as being key to making sound management decisions in the district. With the absence of such benchmark data, it is important that an effort be made in the district to gather more information to ensure the continual improvement of management policies and practices. In consultation with the forest research divisions and subject to funding, this plan will attempt to close some of the research gaps in the area. Some of the broad-scale research topics that could be targeted in this operating period are:

1. Growth and yield data for current strata
2. Update and acquisition of new inventory areas
3. Modification of harvest patterns
4. Impacts of timber harvesting (ecological, social and economic)

Site specific data is also important and necessary to evaluate past actions and provide information on which to base future management decisions. Numerous surveys are scheduled for this upcoming planning period subject to staff availability and funding.

10.2 Amendments

Changes to an approved Operating Plan may be required occasionally resulting from operational challenges or unforeseen circumstances. These changes are submitted as amendments and must be approved by the Forest Ecosystem Management Division prior to implementation.

There are two types of possible amendments:

- 2) Internally within the Department of Fisheries, Forestry and Agriculture, where approval is required by the Forest Ecosystem Management Division. Internal amendments are governed by the following conditions:
 - a. Within one kilometer of an operating area described in the five-year operating plan, an additional area for timber harvesting that is, in total, not more than 50 hectares in each year of the plan
 - b. Within a forest management district, an additional area for silviculture treatment of not more than 20 percent of the total operating area, described in the five-year operating plan, over the five-year term of the plan
 - c. Within an operating area described in the five-year operating plan, not more than one kilometer, in total, of new primary forest access road in addition to existing and proposed primary forest access road in each year of the plan
 - d. Adjacent to an operating area described in the five-year operating plan, not more than half a kilometer in total, of new primary forest access roads in each year of that plan.

Externally, through the Department of Environment and Wildlife. Any required revisions which are not covered by the above internal requirements must be submitted for Environmental Assessment (EA) in the form of an amendment to the five-year operating plan.

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Appendix 1 - Overview and Individual Harvesting Maps

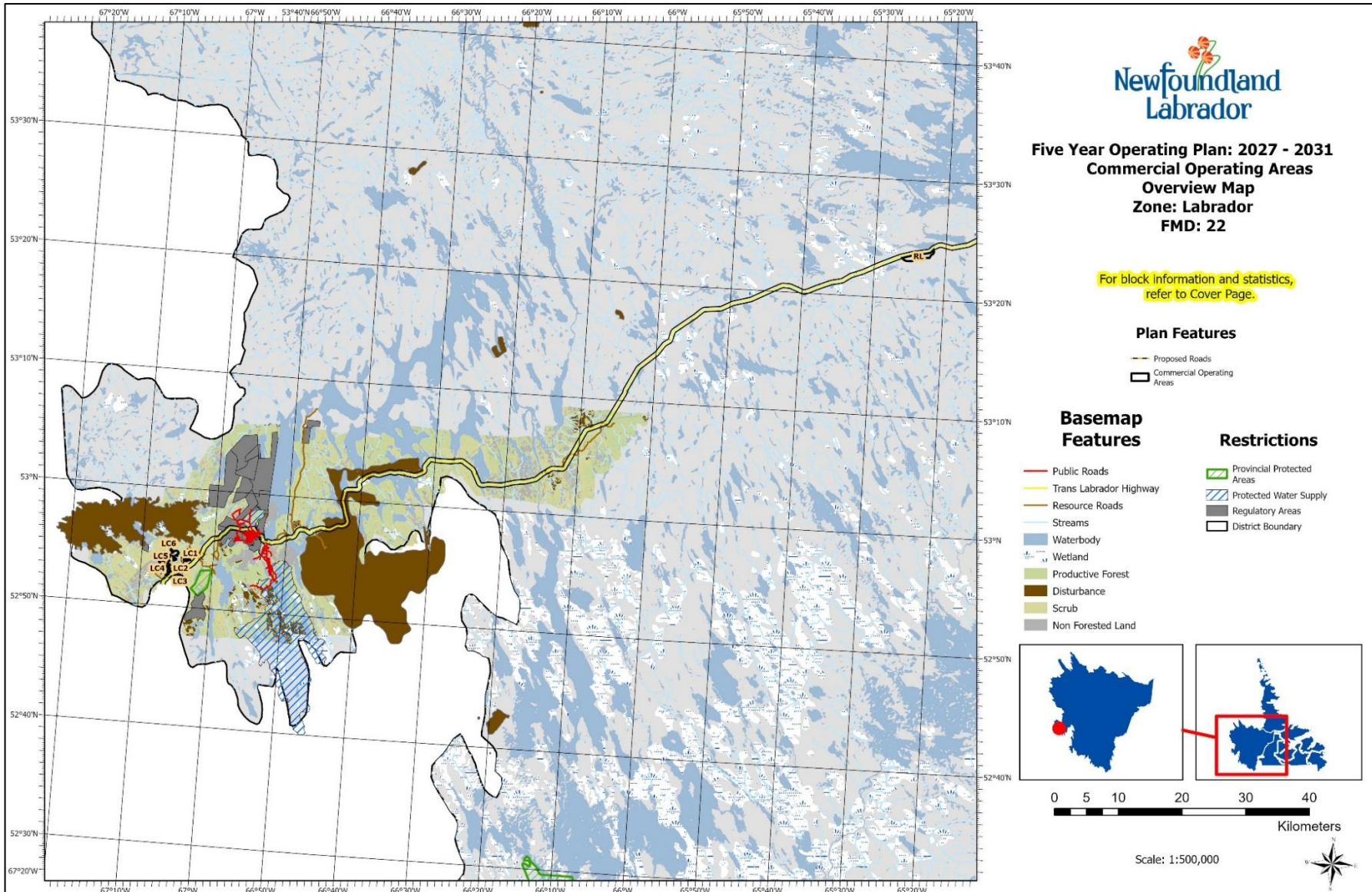


FIGURE 8 2027-2031 COMMERCIAL HARVESTING OVERVIEW MAP

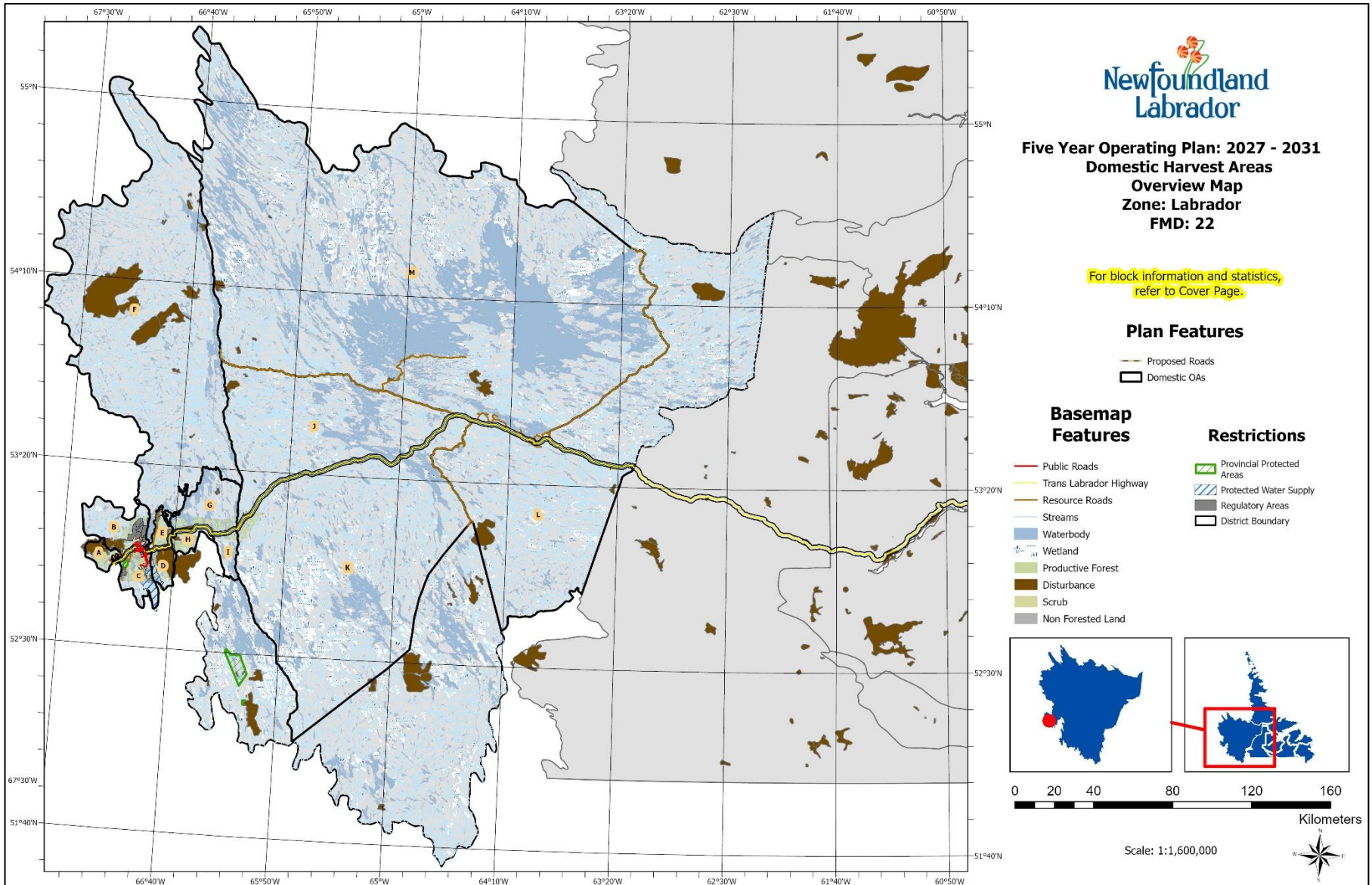


FIGURE 9 2027-2031 DOMESTIC HARVESTING OVERVIEW MAP

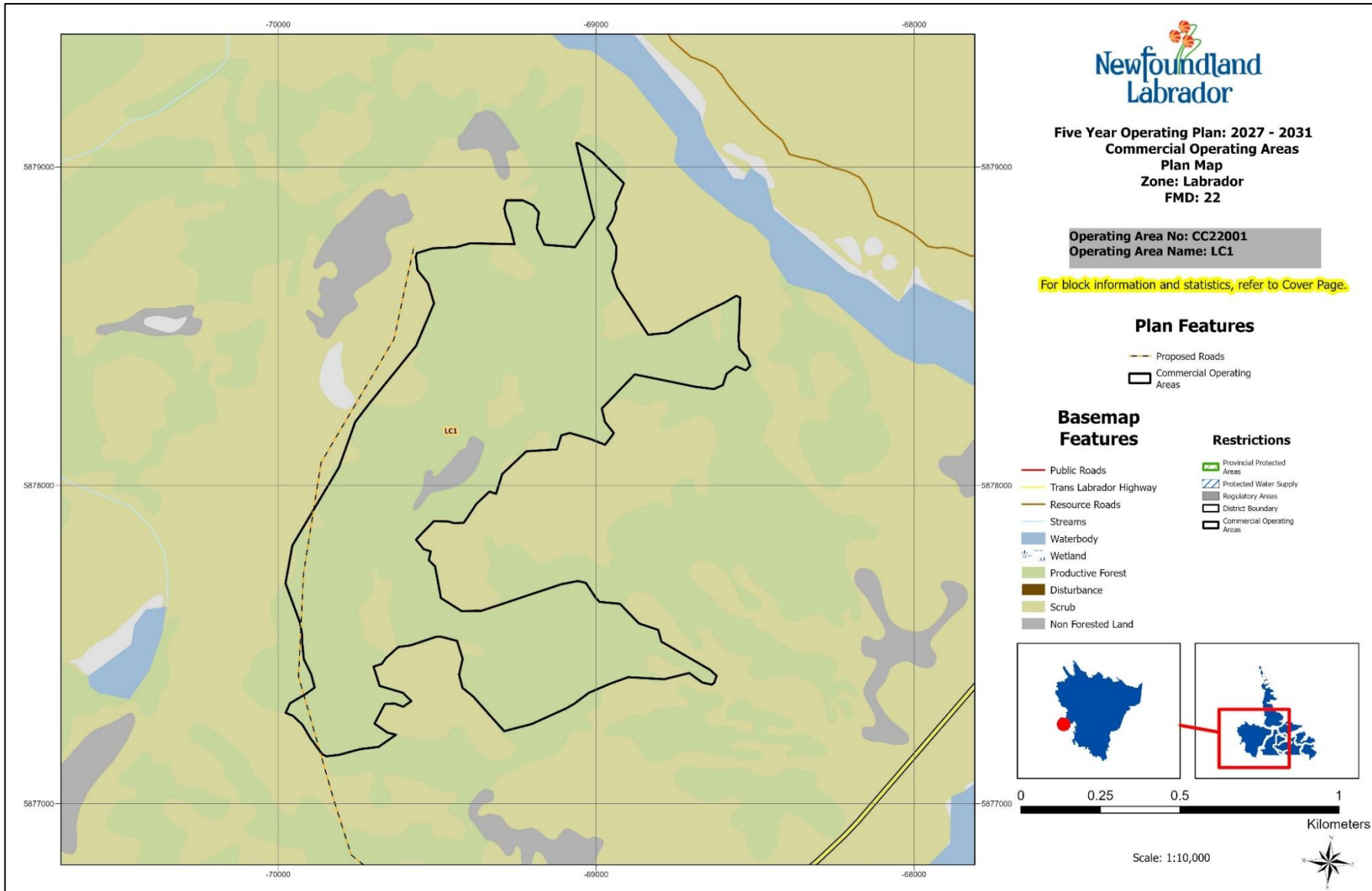


FIGURE 10 LC1 CC22001

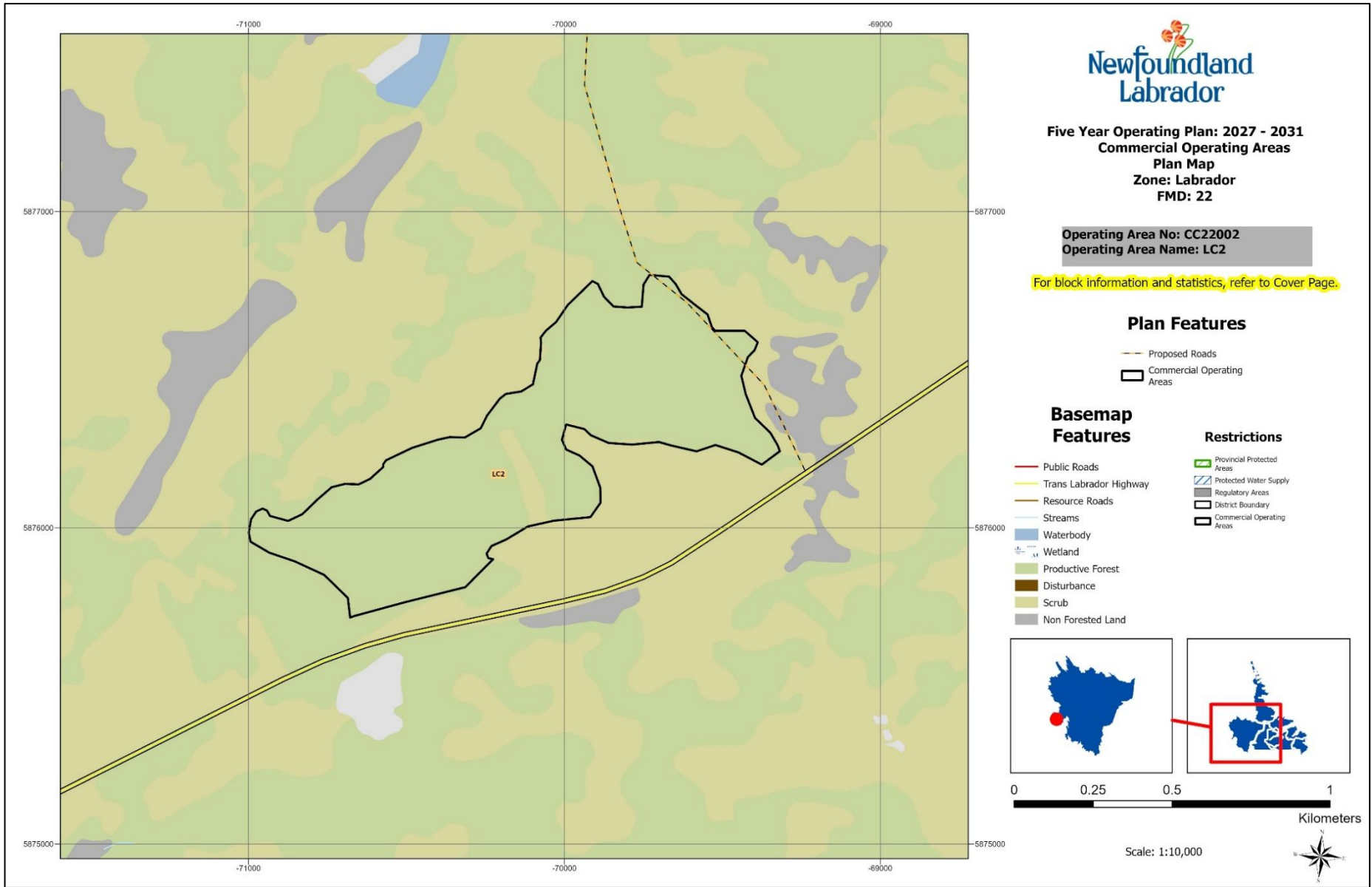


FIGURE 11 LC2 CC22002

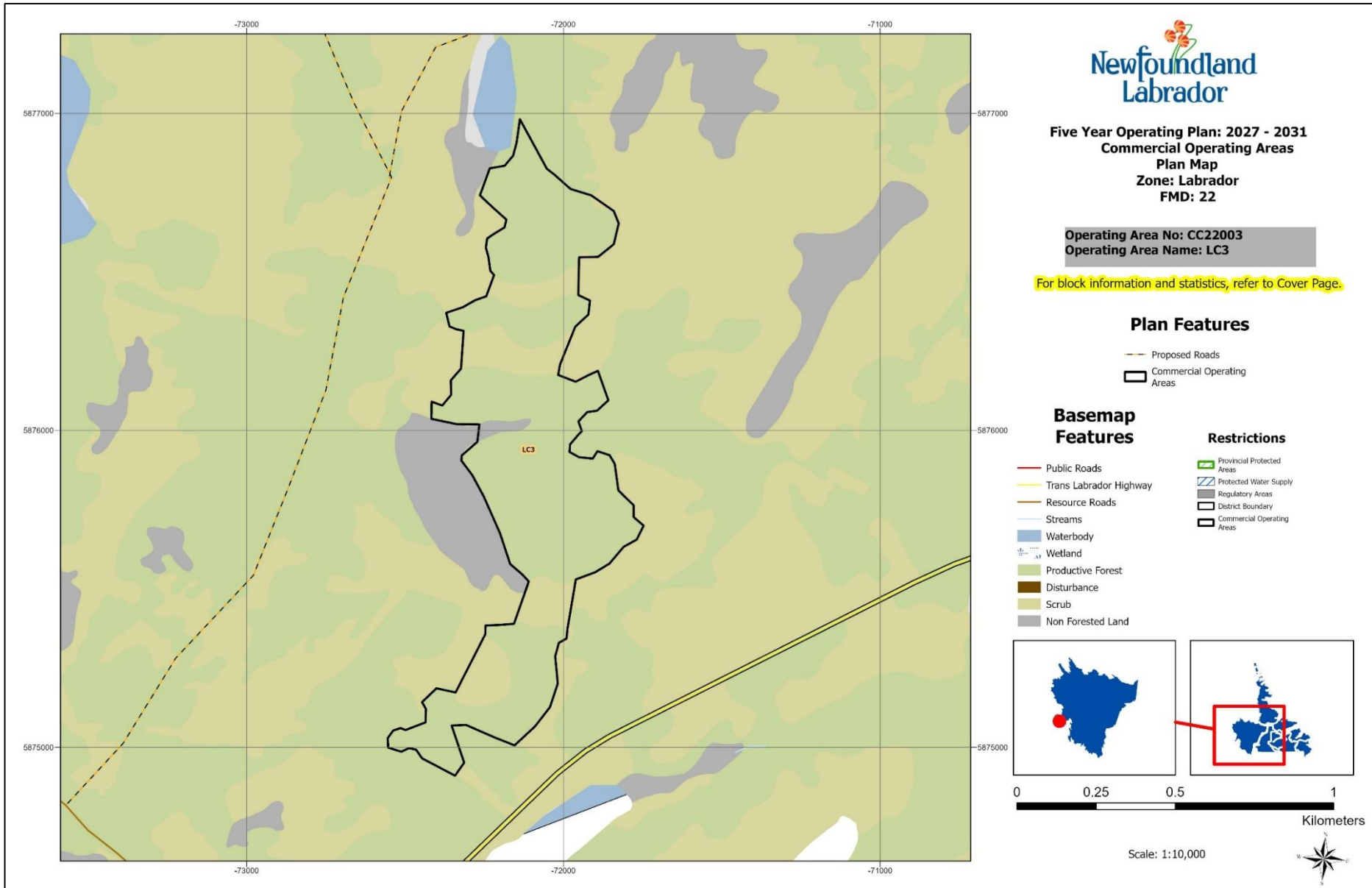


FIGURE 12 LC3 CC22003

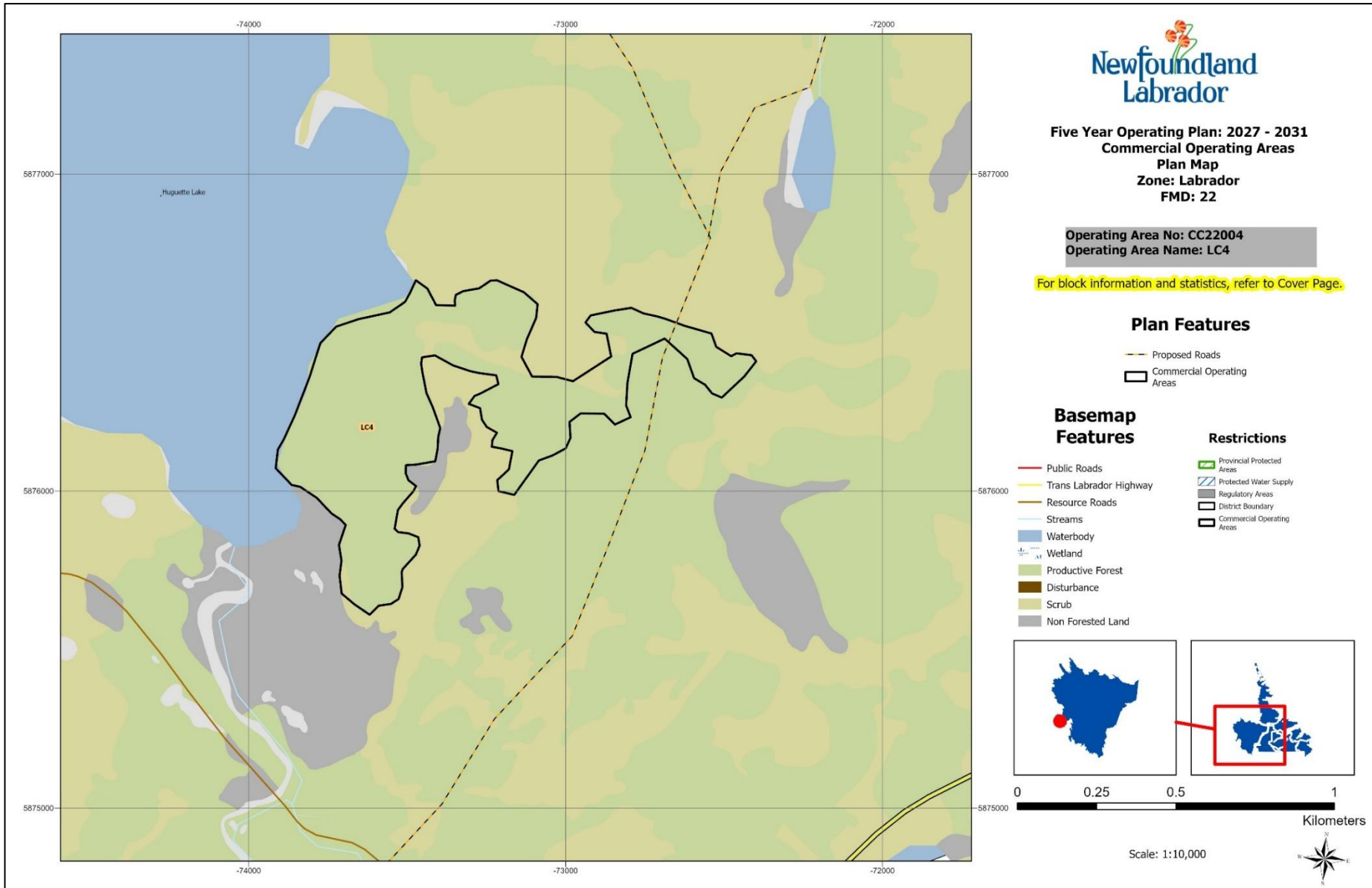


FIGURE 13 LC4 CC22004

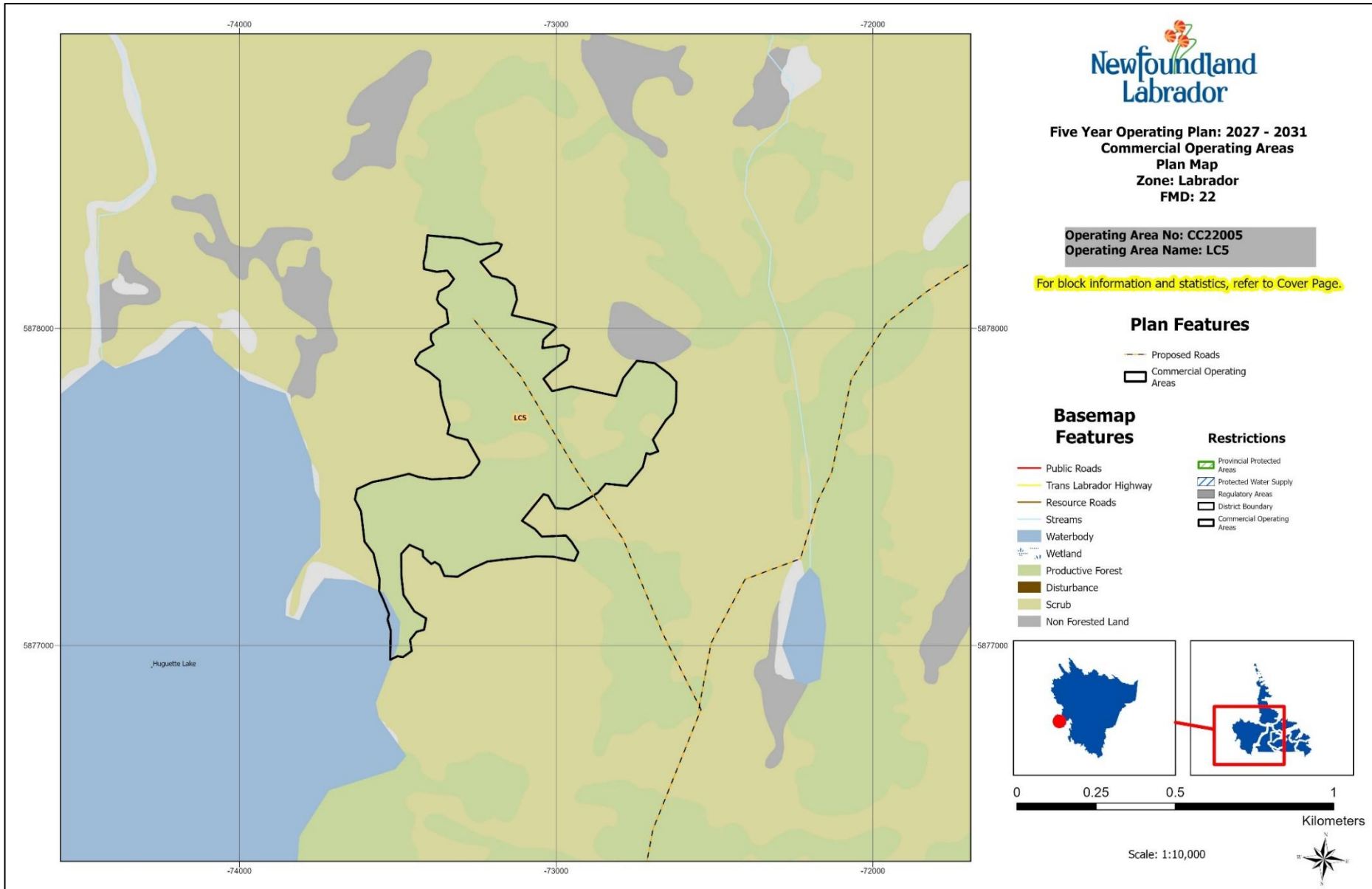


FIGURE 14 LCS CC22005

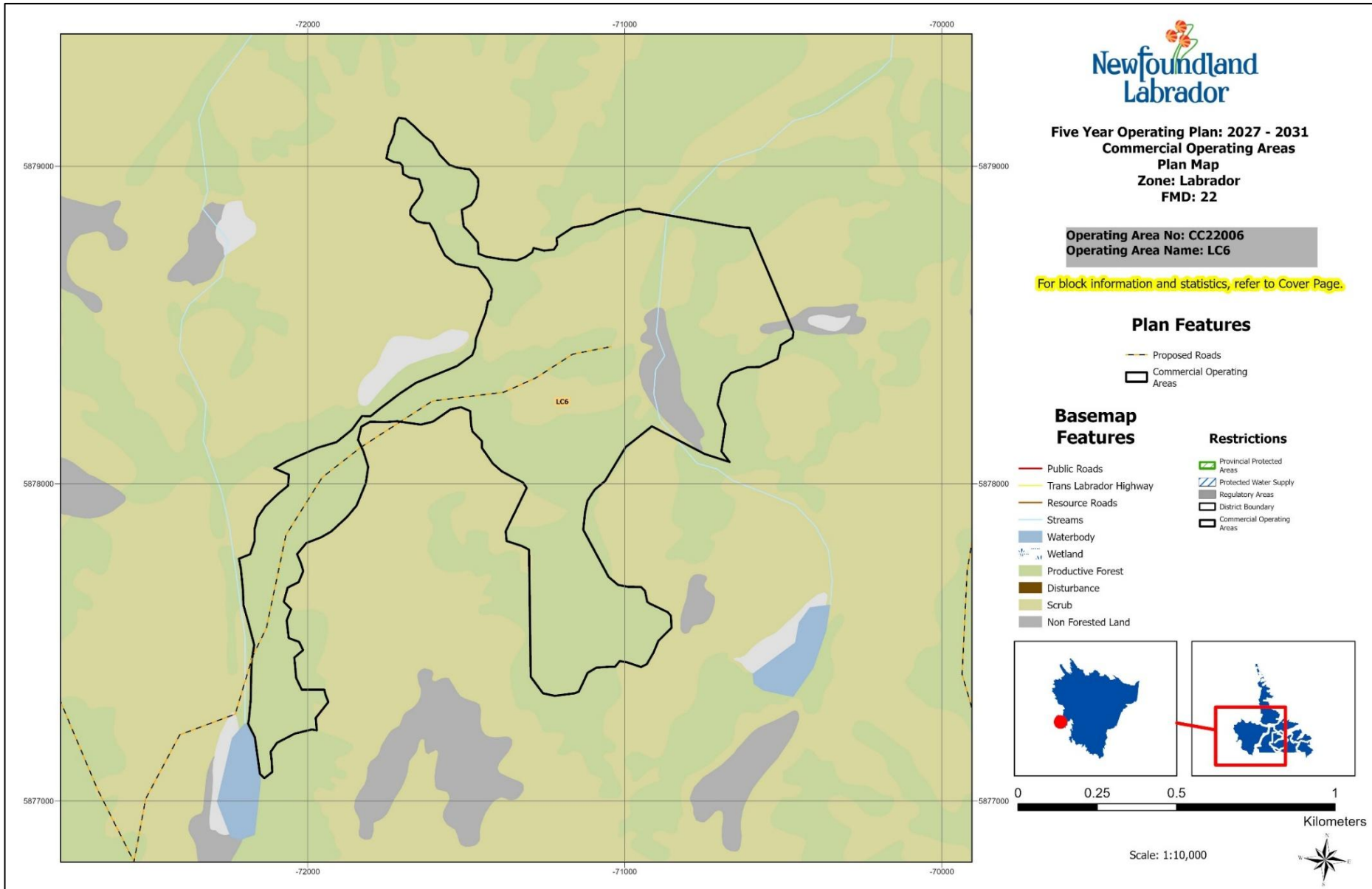


FIGURE 15 LC6 CC22006

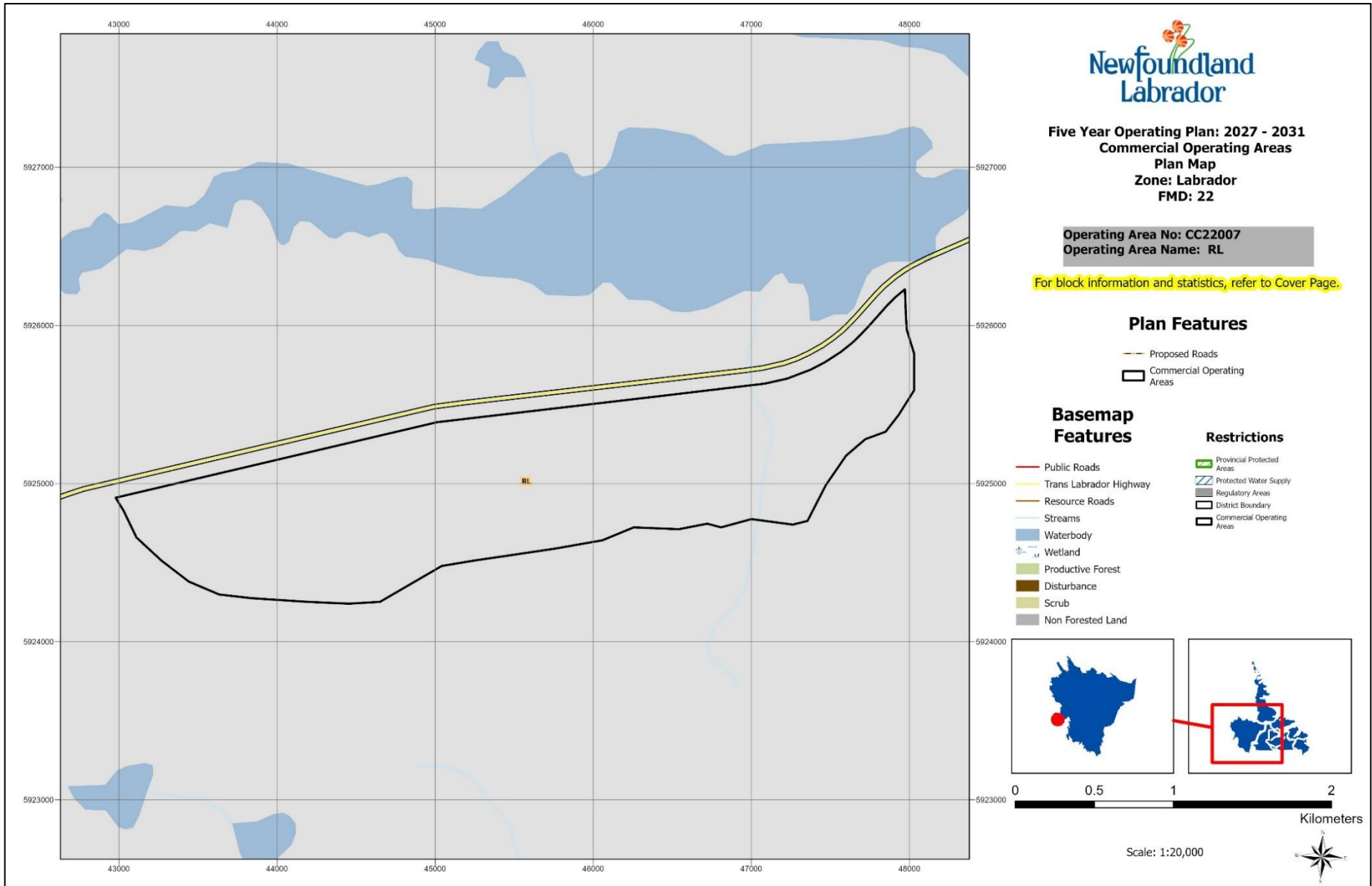


FIGURE 16 RL CC22007

Appendix 2 – Operating Area Summaries

Operating Area Name: Labrador City 1	Operating Area #: C22001
NFS Inventory Map #: 323-34	NTS Map #: 23B14

Description of Area:

This area of crown land is located west of Labrador City. It is located within the mid-subarctic forest region. This is a moderately sized (114ha) block with merchantable stands of mixed spruce and balsam fir. It is marginally visible from the TLH, however should have little impact on the aesthetics of this area. The terrain varies from hilly to rough.

Harvesting Activities:

Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvester with extraction by forwarder.

Inventory Softwood Volume: 12,135 m³

Inventory Hardwood Volume: 557 m³

Proposed Softwood Volume: 8,980 m³

Proposed Hardwood Volume: 412 m³

Difference from Inventory to Proposed Volume: 26%

Rationale for Difference: During calculation of the net AAC the GMV (Gross Merchantable Volume) is further refined to account for retention, waste, cull and natural disturbances. This number, referred to as the Net Commercial Volume, is then used in the AAC calculations. The expected net downs for District 22 were applied to account for the following losses for each calculation: Cull (14%), Residual Stands (6%), Harvesting Losses (5%), and Fire disturbance (1%).

Silviculture Activities:

Reconnaissance surveys will be carried out on existing and new cutovers and regeneration stands to determine the need for planting and/or thinning. Suitable cutovers that are not satisfactorily regenerated will be candidates for site preparation and planting and /or gap planting and suitable regeneration stands will be candidates for thinning. All potential silviculture areas are identified on the operations area maps.

Primary Forest Access Road Construction:

Access road construction in this area will typically be carried out under government contract primarily utilizing excavators. The majority of the fill requirements will come from the road right of (ROW). In the event that material is required from outside the ROW (i.e. gravel pits), it will be done under permit from the Mining and Mineral Development Branch of the Department of Energy and Mines. No stream crossings will be required.

Proposed 5 year access road construction: 1.9 kilometers

Proposed 5 year stream crossings: 2 culverts

Non timber Considerations and Mitigations:

A 20 meter buffer will be maintained on both sides of all rivers, brooks, ponds or other water bodies that are shown on 1:50,000 topographic maps.

On water bodies where an approved cabin development area exists, a 105 meter buffer must be maintained along the shoreline.

Where an approved license to occupy for a cabin exists, a 20 meter buffer is to be maintained.

No forestry activity is to occur within 800 meters of a bald eagle or osprey nest during the nesting season (Mar 15 to July 31) and 200 meters during the remainder of the year.

Operating Area Name: Labrador City 2	Operating Area #: C22002
NFS Inventory Map #: 323-34	NTS Map #: 23B14

Description of Area:

This area of crown land is located west of Labrador City. It is located within the mid-subarctic forest region. This is a moderately sized (68ha) block with merchantable stands of mixed spruce and balsam fir. It is marginally visible from the TLH, however should have little impact on the aesthetics of this area. The terrain varies from hilly to rough.

Harvesting Activities:

Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvester with extraction by forwarder.

Inventory Softwood Volume: 7,212 m³

Inventory Hardwood Volume: 759m³

Proposed Softwood Volume: 5,337 m³

Proposed Hardwood Volume: 562 m³

Difference from Inventory to Proposed Volume: 26%

Rationale for Difference: During calculation of the net AAC the GMV (Gross Merchantable Volume) is further refined to account for retention, waste, cull and natural disturbances. This number, referred to as the Net Commercial Volume, is then used in the AAC calculations. The expected net downs for District 22 were applied to account for the following losses for each calculation: Cull (14%), Residual Stands (6%), Harvesting Losses (5%), and Fire disturbance (1%).

Silviculture Activities:

Reconnaissance surveys will be carried out on existing and new cutovers and regeneration stands to determine the need for planting and/or thinning. Suitable cutovers that are not satisfactorily regenerated will be candidates for site preparation and planting and /or gap planting and suitable regeneration stands will be candidates for thinning. All potential silviculture areas are identified on the operations area maps.

Primary Forest Access Road Construction:

Access road construction in this area will typically be carried out under government contract primarily utilizing excavators. The majority of the fill requirements will come from the road right of (ROW). In the event that material is required from outside the ROW (i.e. gravel pits), it will be done under permit from the Mining and Mineral Development Branch of the Department of Energy and Mines. No stream crossings will be required.

Proposed 5 year access road construction: 1km

Proposed 5 year stream crossings: 0

Non timber Considerations and Mitigations:

A 20 meter buffer will be maintained on both sides of all rivers, brooks, ponds or other water bodies that are shown on 1:50,000 topographic maps.

On water bodies where an approved cabin development area exists, a 105 meter buffer must be maintained along the shoreline.

Where an approved license to occupy for a cabin exists, a 20 meter buffer is to be maintained.

No forestry activity is to occur within 800 meters of a bald eagle or osprey nest during the nesting season (Mar 15 to July 31) and 200 meters during the remainder of the year.

Operating Area Name: Labrador City 3	Operating Area #: C22003
NFS Inventory Map #: 323-34	NTS Map #: 23B14

Description of Area:

This area of crown land is located west of Labrador City. It is located within the mid-subarctic forest region. This is a moderately sized (64ha) block with merchantable stands of mixed spruce and balsam fir. It is not visible from the TLH, therefore should have little impact on the aesthetics of this area. The terrain varies from hilly to rough.

Harvesting Activities:

Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvester with extraction by forwarder.

Inventory Softwood Volume: 6,149 m³

Inventory Hardwood Volume: 109 m³

Proposed Softwood Volume: 4,550 m³

Proposed Hardwood Volume: 81 m³

Difference from Inventory to Proposed Volume: 26%

Rationale for Difference: During calculation of the net AAC the GMV (Gross Merchantable Volume) is further refined to account for retention, waste, cull and natural disturbances. This number, referred to as the Net Commercial Volume, is then used in the AAC calculations. The expected net downs for District 22 were applied to account for the following losses for each calculation: Cull (14%), Residual Stands (6%), Harvesting Losses (5%), and Fire disturbance (1%).

Silviculture Activities:

Reconnaissance surveys will be carried out on existing and new cutovers and regeneration stands to determine the need for planting and/or thinning. Suitable cutovers that are not satisfactorily regenerated will be candidates for site preparation and planting and /or gap planting and suitable regeneration stands will be candidates for thinning. All potential silviculture areas are identified on the operations area maps.

Primary Forest Access Road Construction:

Access road construction in this area will typically be carried out under government contract primarily utilizing excavators. The majority of the fill requirements will come from the road right of (ROW). In the event that material is required from outside the ROW (i.e. gravel pits), it will be done under permit from the Mining and Mineral Development Branch of the Department of Energy and Mines. No stream crossings will be required.

Proposed 5 year access road construction: 2.6 kilometers

Proposed 5 year stream crossings: 0

Non timber Considerations and Mitigations:

A 20 meter buffer will be maintained on both sides of all rivers, brooks, ponds or other water bodies that are shown on 1:50,000 topographic maps.

On water bodies where an approved cabin development area exists, a 105 meter buffer must be maintained along the shoreline.

Where an approved license to occupy for a cabin exists, a 20 meter buffer is to be maintained.

No forestry activity is to occur within 800 meters of a bald eagle or osprey nest during the nesting season (Mar 15 to July 31) and 200 meters during the remainder of the year.

Operating Area Name: Labrador City 4	Operating Area #: C22004
NFS Inventory Map #: 323-34	NTS Map #: 23B14

Description of Area:

This area of crown land is located west of Labrador City. It is located within the mid-subarctic forest region. This is a moderately sized (54ha) block with merchantable stands of mixed spruce and balsam fir. It is not visible from the TLH, therefore should have little impact on the aesthetics of this area. The terrain varies from hilly to rough.

Harvesting Activities:

Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvester with extraction by forwarder.

Inventory Softwood Volume: 6,016 m³

Inventory Hardwood Volume: 42 m³

Proposed Softwood Volume: 4,452 m³

Proposed Hardwood Volume: 31 m³

Difference from Inventory to Proposed Volume: 26%

Rationale for Difference: During calculation of the net AAC the GMV (Gross Merchantable Volume) is further refined to account for retention, waste, cull and natural disturbances. This number, referred to as the Net Commercial Volume, is then used in the AAC calculations. The expected net downs for District 22 were applied to account for the following losses for each calculation: Cull (14%), Residual Stands (6%), Harvesting Losses (5%), and Fire disturbance (1%).

Silviculture Activities:

Reconnaissance surveys will be carried out on existing and new cutovers and regeneration stands to determine the need for planting and/or thinning. Suitable cutovers that are not satisfactorily regenerated will be candidates for site preparation and planting and /or gap planting and suitable regeneration stands will be candidates for thinning. All potential silviculture areas are identified on the operations area maps.

Primary Forest Access Road Construction:

Access road construction in this area will typically be carried out under government contract primarily utilizing excavators. The majority of the fill requirements will come from the road right of (ROW). In the event that material is required from outside the ROW (i.e. gravel pits), it will be done under permit from the Mining and Mineral Development Branch of the Department of Energy and Mines. No stream crossings will be required.

Proposed 5 year access road construction: Access from road network developed for Labrador City 3

Proposed 5 year stream crossings: 0

Non timber Considerations and Mitigations:

A 20 meter buffer will be maintained on both sides of all rivers, brooks, ponds or other water bodies that are shown on 1:50,000 topographic maps.

On water bodies where an approved cabin development area exists, a 105 meter buffer must be maintained along the shoreline.

Where an approved license to occupy for a cabin exists, a 20 meter buffer is to be maintained.

No forestry activity is to occur within 800 meters of a bald eagle or osprey nest during the nesting season (Mar 15 to July 31) and 200 meters during the remainder of the year.

Operating Area Name: Labrador City 5	Operating Area #: C22005
NFS Inventory Map #: 323-34, 323-33	NTS Map #: 23B14

Description of Area:

This area of crown land is located west of Labrador City. It is located within the mid-subarctic forest region. This is a moderately sized (52ha) block with merchantable stands of mixed spruce and balsam fir. It is not visible from the TLH, therefore should have little impact on the aesthetics of this area. The terrain varies from hilly to rough.

Harvesting Activities:

Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvester with extraction by forwarder.

Inventory Softwood Volume: 5,318 m³

Inventory Hardwood Volume: 40 m³

Proposed Softwood Volume: 3,935 m³

Proposed Hardwood Volume: 30 m³

Difference from Inventory to Proposed Volume: 26%

Rationale for Difference: During calculation of the net AAC the GMV (Gross Merchantable Volume) is further refined to account for retention, waste, cull and natural disturbances. This number, referred to as the Net Commercial Volume, is then used in the AAC calculations. The expected net downs for District 22 were applied to account for the following losses for each calculation: Cull (14%), Residual Stands (6%), Harvesting Losses (5%), and Fire disturbance (1%).

Silviculture Activities:

Reconnaissance surveys will be carried out on existing and new cutovers and regeneration stands to determine the need for planting and/or thinning. Suitable cutovers that are not satisfactorily regenerated will be candidates for site preparation and planting and /or gap planting and suitable regeneration stands will be candidates for thinning. All potential silviculture areas are identified on the operations area maps.

Primary Forest Access Road Construction:

Access road construction in this area will typically be carried out under government contract primarily utilizing excavators. The majority of the fill requirements will come from the road right of (ROW). In the event that material is required from outside the ROW (i.e. gravel pits), it will be done under permit from the Mining and Mineral Development Branch of the Department of Energy and Mines. No stream crossings will be required.

Proposed 5 year access road construction: 1.3 kilometers.

Proposed 5 year stream crossings: 0

Non timber Considerations and Mitigations:

A 20 meter buffer will be maintained on both sides of all rivers, brooks, ponds or other water bodies that are shown on 1:50,000 topographic maps.

On water bodies where an approved cabin development area exists, a 105 meter buffer must be maintained along the shoreline.

Where an approved license to occupy for a cabin exists, a 20 meter buffer is to be maintained.

No forestry activity is to occur within 800 meters of a bald eagle or osprey nest during the nesting season (Mar 15 to July 31) and 200 meters during the remainder of the year.

Operating Area Name: Labrador City 6	Operating Area #: C22006
NFS Inventory Map #: 323-34	NTS Map #: 23B14

Description of Area:

This area of crown land is located west of Labrador City. It is located within the mid-subarctic forest region. This is a moderately sized (111ha) block with merchantable stands of mixed spruce and balsam fir. It is not visible from the TLH, therefore should have little impact on the aesthetics of this area. The terrain varies from hilly to rough.

Harvesting Activities:

Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvester with extraction by forwarder.

Inventory Softwood Volume: 8,755 m³

Inventory Hardwood Volume: 113 m³

Proposed Softwood Volume: 6,479 m³

Proposed Hardwood Volume: 84 m³

Difference from Inventory to Proposed Volume: 26%

Rationale for Difference: During calculation of the net AAC the GMV (Gross Merchantable Volume) is further refined to account for retention, waste, cull and natural disturbances. This number, referred to as the Net Commercial Volume, is then used in the AAC calculations. The expected net downs for District 22 were applied to account for the following losses for each calculation: Cull (14%), Residual Stands (6%), Harvesting Losses (5%), and Fire disturbance (1%).

Silviculture Activities:

Reconnaissance surveys will be carried out on existing and new cutovers and regeneration stands to determine the need for planting and/or thinning. Suitable cutovers that are not satisfactorily regenerated will be candidates for site preparation and planting and /or gap planting and suitable regeneration stands will be candidates for thinning. All potential silviculture areas are identified on the operations area maps.

Primary Forest Access Road Construction:

Access road construction in this area will typically be carried out under government contract primarily utilizing excavators. The majority of the fill requirements will come from the road right of (ROW). In the event that material is required from outside the ROW (i.e. gravel pits), it will be done under permit from the Mining and Mineral Development Branch of the Department of Energy and Mines. No stream crossings will be required.

Proposed 5 year access road construction: 2.2 kilometers.

Proposed 5 year stream crossings: 1 culvert

Non timber Considerations and Mitigations:

A 20 meter buffer will be maintained on both sides of all rivers, brooks, ponds or other water bodies that are shown on 1:50,000 topographic maps.

On water bodies where an approved cabin development area exists, a 105 meter buffer must be maintained along the shoreline.

Where an approved license to occupy for a cabin exists, a 20 meter buffer is to be maintained.

No forestry activity is to occur within 800 meters of a bald eagle or osprey nest during the nesting season (Mar 15 to July 31) and 200 meters during the remainder of the year.

Operating Area Name: Ranger Lake	Operating Area #: C22007
NFS Inventory Map #: N/A	NTS Map #: 23H06

Description of Area:

This area of crown land is located East of Labrador City/Wabush. It is located within the mid-subarctic forest region. This is a large sized (414ha) block with merchantable stands of mixed spruce and balsam fir. It is marginally visible from the TLH, however should have little impact on the aesthetics of this area. The terrain varies from hilly to rough.

Harvesting Activities:

Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvester with extraction by forwarder.

Inventory Softwood Volume: 33,568 m³

Inventory Hardwood Volume: XXXXX m³

Proposed Softwood Volume: 24,840 m³

Proposed Hardwood Volume: XXXXX m³

Difference from Inventory to Proposed Volume: 26%

Rationale for Difference: During calculation of the net AAC the GMV (Gross Merchantable Volume) is further refined to account for retention, waste, cull and natural disturbances. This number, referred to as the Net Commercial Volume, is then used in the AAC calculations. The expected net downs for District 22 were applied to account for the following losses for each calculation: Cull (14%), Residual Stands (6%), Harvesting Losses (5%), and Fire disturbance (1%).

Silviculture Activities:

Reconnaissance surveys will be carried out on existing and new cutovers and regeneration stands to determine the need for planting and/or thinning. Suitable cutovers that are not satisfactorily regenerated will be candidates for site preparation and planting and /or gap planting and suitable regeneration stands will be candidates for thinning. All potential silviculture areas are identified on the operations area maps.

Primary Forest Access Road Construction:

Access road construction in this area will typically be carried out under government contract primarily utilizing excavators. The majority of the fill requirements will come from the road right of (ROW). In the event that material is required from outside the ROW (i.e. gravel pits), it will be done under permit from the Mining and Mineral Development Branch of the Department of Energy and Mines. No stream crossings will be required.

Proposed 5 year access road construction: Access from TLH.

Proposed 5 year stream crossings: 0

Non timber Considerations and Mitigations:

A 20 meter buffer will be maintained on both sides of all rivers, brooks, ponds or other water bodies that are shown on 1:50,000 topographic maps.

On water bodies where an approved cabin development area exists, a 105 meter buffer must be maintained along the shoreline.

Where an approved license to occupy for a cabin exists, a 20 meter buffer is to be maintained.

No forestry activity is to occur within 800 meters of a bald eagle or osprey nest during the nesting season (Mar 15 to July 31) and 200 meters during the remainder of the year.

Appendix 3 – Mitigation Table

Department / Agency	Contact Date	Response Date	Issue / Concern	Action / Comments from Forestry
Tourism	February 2, 2026	March 5, 2026	<p>The Department of Tourism, Culture, Arts and Recreation is responsible for implementing the provincial tourism strategy. The strategy aims to grow the tourism industry in all regions, enhance the visitor experience, and lead responsible, regenerative, and sustainable tourism development. Demand continues to increase for authentic, engaging, and personalized experiences that connect visitors with the province’s people and places. Natural assets, such as scenic landscapes, wildlife, and wilderness areas, remain key drivers of visitation and are essential to sustainable growth. Maintaining balance among provincial tourism priorities, private tourism operators, and forestry management is critical.</p>	<p>Forest management harvesting activities are designed to mimic natural disturbance patterns. Forestry activities are carried out on a small percentage of the landscape and natural regeneration occurs soon after, or reforestation is managed with silviculture treatments. While there may be specific special areas where viewscales may be designed, it is not reasonable to carry viewscale design on large planning areas</p>
			<p>Touring Corridor/Viewscales</p> <ul style="list-style-type: none"> - TCAR recommends that any development affecting scenic settings near touring corridors be managed to minimize negative visual impacts. The Trans Labrador Highway is a strategically important touring route for the province. - Cut blocks along the Trans Labrador Highway (Route 500) should be developed using landscape design techniques to ensure visibility of harvesting is minimized for visitors. - Applicable cut blocks include (OA_NO): CC22003, CC22002, CC22001, CC22007 	
			<p>Recommendations</p> <ul style="list-style-type: none"> - Mitigation measures should be used to preserve visitor experience and maintain viewscales along key touring corridors. Forestry harvesting along main highways and other identified routes should be kept out of view, and harvest blocks should be designed using landscape techniques that reduce visual impacts. - TCAR recommends that FAL continue direct consultations with Julia Penney, Manager of Tourism Product Development at TCAR, to minimize visibility of clear cuts from identified routes. - It is recommended that the proponent engage with Julia Penney (JuliaPenney@gov.nl.ca, 709-729-6588) 	

Department / Agency	Contact Date	Response Date	Issue / Concern	Action / Comments from Forestry
Mines	February 2, 2026	March 17, 2026	<p>Our review comments:</p> <p>GIS data</p> <p>Shapefiles for mineral licences currently in issuance can be obtained from the Department's Geoscience Atlas (https://gis.geosurv.gov.nl.ca/) – select the 'Map Staked Claims' layer in the Mineral Lands layer group.</p> <p>Mapping for the boundaries of areas covered by quarry permits and quarry leases is posted online in KMZ format at https://www.gov.nl.ca/iet/mines/quarries/ under Quarry Maps and Boundaries. Please note that the boundaries should be considered preliminary and that, currently, not all boundaries are contained in the KMZ file. Please read DISCLAIMER.pdf at the same file location for further information on the limitations of this data. Interested parties are invited to contact the Mineral Lands Division directly at quarries@gov.nl.ca to confirm the locations of specific boundaries, particularly in instances where the absence of a boundary on file is indicated by a circle in the KMZ file.</p>	Forestry will design cut blocks that do not overlap onto other non-compatible land use areas, however as per the Lands Act Section 28, it is the responsibility of the land holder to maintain boundaries.
			<p>Specific comments for FMD 22</p> <p>Proposed domestic harvest areas overlap active mines and quarries, including:</p> <ul style="list-style-type: none"> • IOC's operation in Labrador City; • Tacora's operation at Wabush; • Tata Steel's operation north of Schefferville; • numerous areas corresponding to quarry permits, particularly near Labrador City, Wabush and Churchill Falls and along the Trans-Labrador Highway. <p>Proposed domestic harvest areas also overlap a number of areas covered by mineral licences, representing areas where mineral exploration is a land use that should be expected to take place. Most mineral licences in overlap are located in the region of Labrador City and Wabush, in the region of Schefferville, or northeast of the Smallwood Reservoir.</p> <p>Proposed commercial harvest areas and proposed forest access roads west of Labrador City overlap a number of mineral licences.</p>	

Department / Agency	Contact Date	Response Date	Issue / Concern	Action / Comments from Forestry
Mines	February 2, 2026	March 17, 2026	<p>General comments</p> <p>Table of values</p> <p>We ask that the most recent version of the Table of Values for Mining, Mineral Exploration and Quarrying be included in the FYOP document.</p> <p>Overlap of harvesting areas with quarry sites</p> <p>Parties engaged in domestic and commercial harvesting should not enter quarry sites and should be advised of the potential hazards that would be associated with entering a quarry site. While we acknowledge that the inclusion of quarry sites within domestic cutting areas appears to represent a regional approach to drawing the polygons, we nonetheless consider that domestic (and commercial) harvesters should be advised of the hazard potential associated with quarry sites and directed not to enter, and not to closely approach, areas subject to current or past quarrying.</p> <p>In addition, domestic and commercial harvesters should be advised that they are not permitted to use quarry sites for staging, laydown or wood storage areas.</p> <p>In addition, domestic and commercial harvesters should be advised that trees located between woods roads and quarry sites are not to be harvested. Where a quarry exists alongside a woods road, the trees located between the access road and the quarry should not be harvested but rather left in place to serve as a natural barrier to help to prevent unauthorized access into the quarry. Each quarry operator is required to prevent unauthorized access into their quarry. New quarries are not permitted within 15 m of a woods road and the site boundaries accepted by the Department of Energy and Mines reflect this buffer. Some established quarries also have a treed buffer between the woods road and their workings. While gating, berms, or boulders may be used to restrict access at the entrance point, the preservation of natural tree screens is a very effective and convenient means of restricting access along the wider boundary.</p>	<p>Forestry will include Mining values in the plan. Forestry will identify any Quarry boundaries that are on the Land Use Atlas, or any mapping files provided by Mines. Forestry requests that mines provide signage for any areas that reasonably are required for public safety. Quarry boundaries for Mines for operations should be clearly marked, bermed, or fenced for the prevention of trespass as per requirements under the Lands Act Section 28 (1). Forested areas that may be required by Mines for screens, or other purposes should be established following consultation with the forestry Ecosystem Manager.</p>

Department / Agency	Contact Date	Response Date	Issue / Concern	Action / Comments from Forestry
Mines	February 2, 2026	March 17, 2026	<p>Quarry sites are potentially hazardous and government cannot condone the unauthorized entry of parties involved in harvesting wood into quarry sites. Areas subject to quarry operations may present a variety of safety hazards, including moving heavy equipment, large pieces of stationary equipment, loading ramps, changing site topography, steep drops, and excavated faces.</p> <p>Furthermore, it must be emphasized that areas subject to quarrying remain hazardous even when quarry operations are idle or after the quarry site becomes inactive or is abandoned.</p>	<p>Forestry advises the safe work practices for all work on public lands where the public has a right of access should be followed.</p>
			<p>Overlap of domestic harvesting areas with mine sites</p> <p>Again, we acknowledge that the inclusion of mines sites within domestic cutting areas represents a regional approach to drawing the polygons, however nonetheless consider that domestic harvesters in Labrador West should be advised of the hazard potential associated with mines and mine-related infrastructure and directed not to enter areas subject to current or past mining activity or to use mine-related infrastructure such as haul roads.</p>	<p>Forestry will not encroach on any Land identified on the Land Use Atlas as a freeze area that is not Crown land. Harvesting will not be knowingly carried out on any land that has boundaries marked on the ground as per section 28 (1) of the Lands Act.</p>
			<p>Overlap with mineral licences</p> <p>Mineral exploration activity should be expected within areas covered by mineral licences. Parties engaged in domestic or commercial harvesting should be advised of the potential to encounter mineral exploration activity and of potential hazards that may be associated with mineral exploration activity.</p> <p>Mineral exploration activities may include traditional prospecting, geochemical sampling, geophysical surveys carried out on foot, airborne geophysical surveys, the cutting of survey lines, the excavation of trenches and exposure of bedrock, and the drilling of cores of rock, and may be accompanied by the creation of new (temporary) access trails and equipment laydown areas. Certain potential future mineral exploration activities within domestic or commercial cutting areas may present hazards to human safety, such as the excavation of trenches (potential fall hazards, sudden drop hazards) and the drilling of core (potential hazards associated with the active use of machinery and large equipment).</p>	<p>Forestry will design cut blocks that do not overlap onto other non-compatible land use areas, however as per the Lands Act Section 28, it is the responsibility of the land holder to maintain boundaries.</p>

Department / Agency	Contact Date	Response Date	Issue / Concern	Action / Comments from Forestry
Water Resources	February 2, 2026	February 24, 2026	<p>Comments regarding permits under Section 48 of the Water Resources Act are below:</p> <ol style="list-style-type: none"> 1.Roads: <ol style="list-style-type: none"> a.Roads passing through wetlands or within 15m of a body of water will require S48 approval. b.Culverts associated with waterbodies visible on 1:50k topo mapping will require S48 approval. 2.Any clearing of land associated with commercial or domestic harvesting within 15m of a body of water/wetland will require S48 approval. <ol style="list-style-type: none"> a.Any equipment crossing a body of water or wetland will require S48 approval. 3.Activities associated with “Silviculture Treatment” that take place within 15m of a body of water may require S48 approval. 	Forestry follows all recommendations and permit requirements under the Water Resources Act.
			<p>Prior to the start of forest management activities, the proponent must apply for and obtain a permit under the Water Resources Act, 2002, specifically Section 39 http://assembly.nl.ca/Legislation/sr/statutes/w04-01.htm for any proposed development adjacent to or within any Protected Public Water Supply Areas (PPWSA) which include and not limited to roads, silviculture, commercial and domestic harvesting.</p>	
			<p>Based on the 5-year plan for FMD 22, Section 39 permits would be required before activities occur inside the following PPWSAs:</p> <ul style="list-style-type: none"> • Beverly Lake PPWSA for Labrador City, and • Wahnahnish PPWSA for Wabush 	
			<p>WRMD are currently working with the Town of Red Bay and the Town of L’Anse au Loup on the protection of the watershed areas for their drinking water systems. Based on the 5-year plan for FMD 21, Domestic Operating Areas overlap these proposed PPWSAs. If these areas are ultimately protected under the Water Resources Act, Section 39 permits would be required before activities occur:</p> <ul style="list-style-type: none"> • Northern Brook watershed area for Red Bay • L’Anse au Loup River watershed area for L’Anse au Loup 	
			<p>WRMD has 11 ADRS stations located within the FMD22_FYOP_2027_2031_Domestic_Operating_Areas polygon layer:</p>	

Department / Agency	Contact Date	Response Date	Issue / Concern	Action / Comments from Forestry
Crown Lands	February 12, 2026	March 4, 2026	<p>Crown Lands</p> <ul style="list-style-type: none"> • The Crown Lands Administration Division advises that the proponent is to operate under the established legislation and regulations of the Lands Act. It is the proponent's responsibility to identify Crown lands required for their undertaking. • The project area overlaps Crown lands issued titles. It is recommended that the proponent advise title holders of their proposed activities and the associated timelines. Approximate locations of these titles can be viewed on the Provincial Land Use Atlas viewer here: https://www.gov.nl.ca/landuseatlas/details/. All activities within the proposed boundary should take into consideration the titles that have been issued to ensure the proposed activities does not conflict with the approved/existing uses, as well as appropriate buffers around existing developments. Title holders must be permitted to develop their property for the intended use. • There may be private land located within this area which may not be on record with the Crown Lands Office. If work is planned on private lands, permission is required from the land owners. • Identify areas where cottage application can be accepted withing the five-year operating plan boundaries. • Any activities that occur within the 15m Shoreline Reserve of any water body must strictly adhere to the regulations in Section 7 of the Lands Act. • All constructed resource roads for this project are to remain open for public access. • All roads constructed for the purposes within the operating plan, the Land Management Division requires consultations before any roads become decommissioned and/or removal of infrastructure (roads/culverts). 	<p>Forestry will not encroach on any Land identified on the Land Use Atlas that is not considered available Crown land. Forest access roads are designed under several time period classes - some roads are for short periods and the removal of culverts and bridges are planned soon after harvest. Forest access roads are public roads and are available for public use, subject to reasonable safety and maintenance restrictions deemed necessary. Forestry requests that Lands inquire on specific forestry roads for other use cases.</p> <p>Any private land, identified in the LUA, will not be shown on Forestry Maps as available for harvest. Harvesting will not be carried out on any land, not in the LUA, that forestry becomes aware of that may be private. If forestry becomes aware of boundaries (not in the LUA), however, are marked on the ground as per section 28 (1) of the Lands Act, harvesting will not be permitted without approval from Lands. Forestry management activities do not generally impact any areas that would be within the 15 meter reservation. Foret access roads, constructed under an approved Forest Management plan and cross a reserve are not grants, leases, licenses, or Quitclaims and are not considered subject to the Lands Act Section 7. Cottage applications should follow the current referral process to forestry for a forestry analysis of impacts.</p>

Department / Agency	Contact Date	Response Date	Issue / Concern	Action / Comments from Forestry
Agriculture Lands Section	February 12, 2026	March 4, 2026	<p>Agriculture Lands Section</p> <p>The area of application overlaps several Agriculture properties, Agriculture Development Areas (ADA) and Agriculture Areas of Interest. In general, the Agriculture Lands Section does not have concern with the proposed activities at this time. If activities should interfere with the agriculture properties and future production in this area, the Land Management Division will work with the proponent to mitigate any potential issues.</p>	Forestry will work with Agriculture on any issues
Land Management	February 12, 2026	March 4, 2026	<p>LMD Planning</p> <p>FMD 22 encompasses several Cottage Development Areas (see attachments).</p> <p>Both FMD 21 & 22 encompass Issued titles.</p> <p>The proposed activities are not to encroach on existing titles and the proponent should keep the safety of cottage owners and other recreational users in mind during the proposed activities.</p> <p>Approximate locations of these titles can be viewed on the Provincial Land Use Atlas on the website at www.gov.nl.ca/landuseatlas/details/.</p> <p>No further concerns from an LMD Planning perspective.</p>	<p>Forestry will not encroach on any Land identified on the Land Use Atlas as a freeze area that is not Crown land.</p> <p>Harvesting will not be knowingly carried out on any land that has boundaries marked on the ground as per section 28 (1) of the Lands Act</p>
Natural Areas	February 12, 2026	No response		

Department / Agency	Contact Date	Response Date	Issue / Concern	Action / Comments from Forestry
Wildlife Division	February 12, 2026	February 26, 2026	Wildlife Division has no concerns with the proposed activities in District22	

Appendix 4 – Domestic Cutting Permit Conditions

D22 Domestic Cutting Permit Conditions

1. All timber cut must be identified by permit number and removed from the cutting area while harvesting is in progress. The number must be legible and on the butt end of every wood pile regardless of size or location.
2. Logging debris, (tops, limbs sawdust) is not to be deposited in/on any pond, brook, roadway or ditch.
3. The permittee shall utilize all portions of all trees harvested to a top diameter of 8 centimeters and stump heights shall not exceed 15 centimeters.
4. All harvesting must occur only in areas indicated on your permit. Also a permittee must have a valid permit, map, and conditions in his/her possession when cutting or hauling timbers. This includes burned and dry wood.
5. A helper can cut or transport timber, but must be accompanied by the permit holder (exceptions made only under special conditions, with prior approval from Forestry Officials). Wood is to be delivered to permit holders principal residence.
6. Timber suitable for saw logs CANNOT be utilized as firewood. It must be used as a saw log or left standing (a saw log is 8 feet or more in length, and 5 inches in the top).
7. During Forest Fire Season (May to September), this permit is invalid unless accompanied by an Operating Permit (Issued at the Forestry Office with no charge to the Permittee).
8. All waste material (garbage) associated with this activity shall be removed and disposed of at an approved waste disposal site.
9. Permittee shall not cut or in any way damage immature or silviculturally treated areas.
10. Unless otherwise indicated or approved by the District Office there shall be:
 - a. No cutting within 100 meters of a schedule river;
 - b. No cutting, piling or storage of timber within 30 meters of any streams, brooks or other body of water;
 - c. No cutting within 30 meters of forest access roads;
 - d. No cutting within 30 meters of designated groomed snowmobile trails;
 - e. No cutting on islands;
 - f. No cutting with 100 meters from the Center of the TLH.
11. All red stain MUST be fully utilized as firewood. All rot must be fully utilized up to one half the diameter of the bolt.
12. No Cutting within Domestic Harvest Blocks I, K, L and M during caribou calving and post-calving periods (May 15-September 15 annually).

These conditions are a summary only. For further information or copies of complete Regulations and Acts, please contact the Forestry Service Branch, Wabush 282-6881.