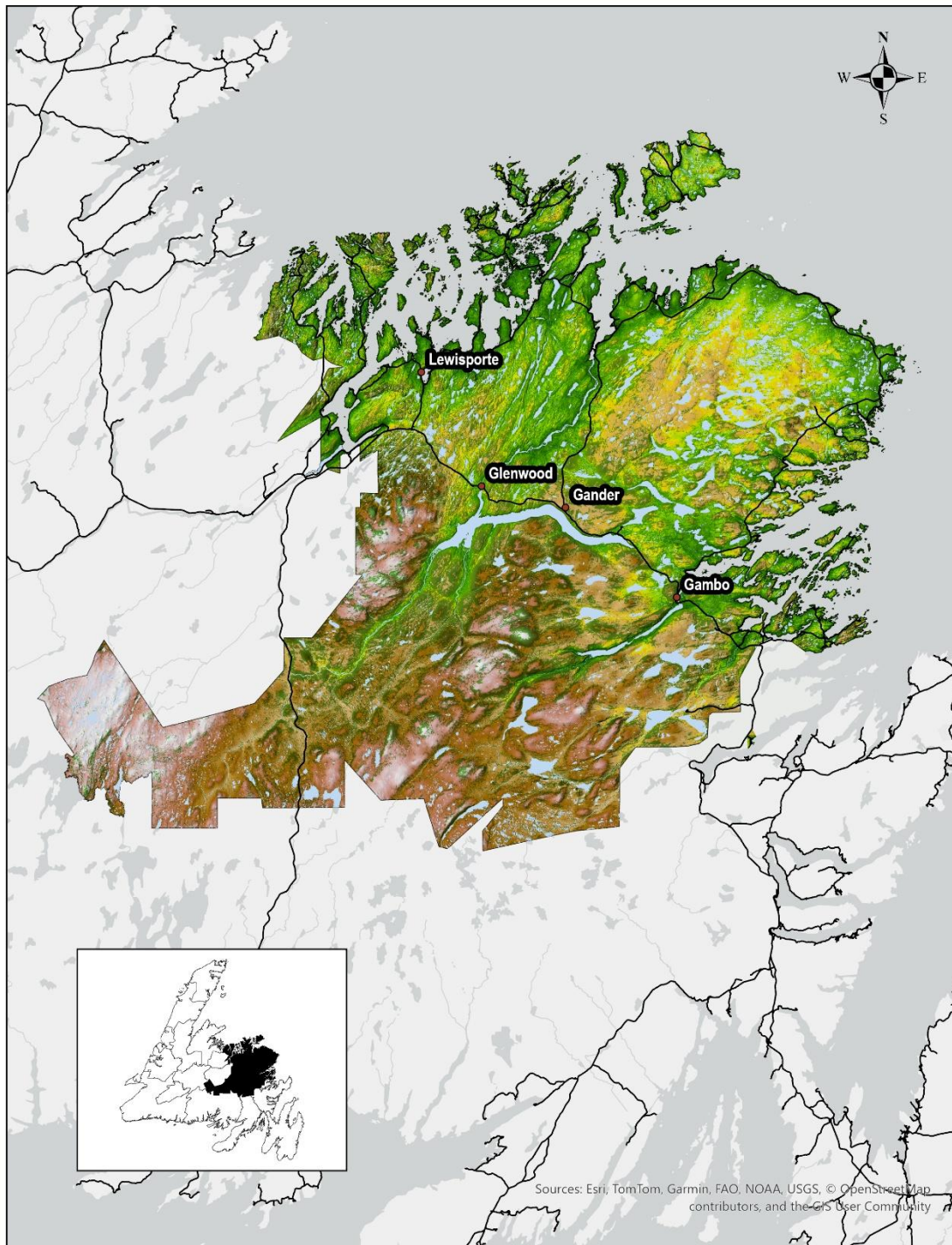


**Newfoundland and Labrador**  
**Five-Year Sustainable Forest Management Plan**  
**Forest Management Zone 3**  
**Districts 4, 5, 6, and 8**  
**Effective Period - January 1, 2027, to December 31, 2031**

Forest Ecosystem Management Division  
Department of Forestry, Agriculture and Lands

## Forest Management Zone 3



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## INTRODUCTION

This new five-year plan is scheduled for the period January 1, 2027, to December 31, 2031, and represents proposed forestry activity upon crown timber lands within Forest Management Districts 04, 05, 06 and 08. The management of this land is consistent with strategies and philosophies implemented by Forestry, Agriculture & Lands on all crown land managed districts within the province. This five-year operating plan incorporates established provincial planning requirements, environmental protection guidelines, and standard operating procedures developed under a stringent Environmental Management System (EMS) which is registered under the ISO 14001 standard.

Topics that are provincial in scope such as carbon and global warming are included in the provincial sustainable forest management strategy, while sections that are more descriptive or depict local conditions such as values, forest characterization and ecosystem description are included in this five-year operating plan. Forest Management Districts 04, 05, 06 and 08 are adjacent and share common ecoregion characteristics and collectively form Planning Zone Three.

Within a planning zone, there is a requirement for each tenure to develop a five-year operating plan. These plans must be submitted to the Department Forestry, Agriculture and Lands and the Department of Environment, Conservation and Climate Change for an environmental assessment (EA) review. Forest Management District 08 is comprised entirely of crown land, while FMD's 04, 05, & 06 have Crown and Corner Brook Pulp and Paper (CBPPL) tenure. District 06 has Crown, CBPPL and one 20-year Forest Management Agreement (FMA) issued to the Miawpukek First Nation. As a result, there will be three five-year plans submitted to EA for this zone. Throughout this five-year plan, references will be made to Districts 04, 05, 06 and 08 individually but when combined they will collectively be referred to as Planning Zone Three or the zone.

This document will attempt to fully integrate the presentation of information and discussions for crown land in the zone. Discussion and information will be presented separately for each district as warranted based on unique and distinct differences in scope and content. The more descriptive sections of this plan will be generic in nature and give information for the entire zone as well as some broad comparative statistics. Finally, this document will attempt to build on the positive results of previous five-year plan documents. Information will be updated as required or new sections will be added as any new information is available.

## SECTION 1 DESCRIPTION OF THE LAND BASE

## 1.1 General

### 1.1.1 Location

Planning Zone Three encompasses FMD's 4, 5, 6 and 8. It extends from Seal Bay in the northwest, easterly along the coast to New-Wes-Valley in the northeast, then southerly to Terra Nova National Park in the east and then west along the northern edge of the Bay Du' Nord Wilderness Area to the general area of the Bay D 'Espoir Highway near Great Gull Lake.

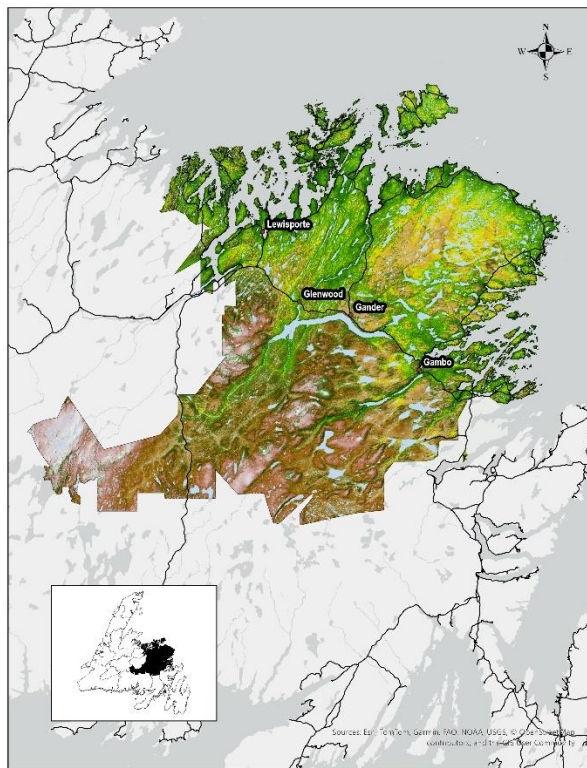


Figure 1: Location of Planning Zone 3

### 1.1.2 History

Except for Gander, the major communities within the planning zone area were built around the fishery, the railway and lumbering. In FMD 5, Gander's existence stems from the need of a stopover point for transatlantic flights in the mid 1930's, while Wesleyville-Badgers Quay area and Greenspond, were important to the fishing industry. Gambo was the site of extensive lumbering activities in the 1800's. The

Terra Nova River watershed, which essentially constitutes FMD 4, was extensively logged for pulpwood and lumber during the 1940's and 50's. FMD 6 encompasses the watershed of both the Northwest and Southwest Gander Rivers and the area immediately adjacent to Glenwood. Within FMD 8, the community of Twillingate developed around the fishing and shipping industries, while Campbellton was an industrial town with a lumber mill, pulp mill and its own miniature railway. Commercial forestry activities are an important source of employment in the area. Small scale farming is carried out in the Comfort Cove, Laurenceton and Northern Arm areas. Lewisporte; the largest community in FMD 8 is a service town. Lewisporte was a main port for the coastal service to Labrador, prior to the Labrador highway and ferry service from the Northern Peninsula. These four districts have strong ties to the development of the forest industry in Newfoundland. The infrastructure, especially the network of forest access roads used to support the logging industry, and the former railway lines, are considered an important component of other, such as ATV use, Snowmobiling, hunting, and fishing.

### 1.1.3 Ownership

The Crown has ownership of all ungranted land in the zone. Corner Brook Pulp and Paper Limited (CBPPL) have timber management areas in FMD 04, 05, and 06. The Miawpukek First Nation has a 20-year Forest Management Agreement (FMA) in FMD 06.

Timber management areas are shown in the table below:

TABLE 1: TIMBER MANAGEMENT AREAS ZONE 3

| Ecosystem Planning Zone 3 |                    |                         |                         |                             |         |        |            |
|---------------------------|--------------------|-------------------------|-------------------------|-----------------------------|---------|--------|------------|
| FMD ID                    | District Area Ha's | Crown Managed Area Ha's | CBP&P Managed Area Ha's | Miawpukek Managed Area Ha's | % Crown | %CBP&P | %Miawpukek |
| 4                         | 302,252            | 299,753                 | 2,499                   | 0                           | 99%     | 1%     | 0%         |
| 5                         | 578,385            | 510,991                 | 67,394                  | 0                           | 88%     | 12%    | 0%         |
| 6                         | 451,821            | 192,200                 | 79,669                  | 179,952                     | 43%     | 18%    | 40%        |
| 8                         | 283,395            | 283,395                 | 0                       | 0                           | 100%    | 0%     | 0%         |
| Zone Total                | 1,615,852          | 1,286,338               | 149,563                 | 179,952                     | 80%     | 9%     | 11%        |

## 1.2 Physical

### 1.2.1 Topography and Hydrology

Planning Zone 3 has generally a rolling topography dissected by several large valleys including: Southwest Gander River, Northwest Gander River and Gander River valleys. These rolling hills are commonly

between 100 and 200 metres above sea level and rarely extending above 300 metres above sea level. A broad lowland, below 100 m elevation, is found between the Exploits River and Botwood, and north of Norris Arm. The area has an extensive coastline dominated by bedrock with scattered pocket beaches. Another exception is the area west of New-Wes-Valley, which is generally low relief lowland (less than 100 m asl) dominated by numerous lakes and wetland areas. The physiography is largely controlled by bedrock structure, shown by the numerous southwest - northeast trending valleys, lakes and ridges. Hills are commonly orientated northeastward, reflecting bedrock lineations. The highest point in the management area is Mount Peyton (482 m above sea level) near Glenwood in FMD 6. This region contains Gander Lake, which is one of the largest lakes in the province. The lake is 47 km long, an average of 2.0 km wide. The main rivers include the Gander, Gambo, Campbellton, and Terra Nova.

### 1.2.2 Geology

This region shows abundant evidence of glacial activity and is dominated by areas of bedrock and till. Bedrock that comprises much of the coastal area and the higher ground is smoothed, commonly showing Roche moutonnée forms. Drumlins are found at the head of Lewisporte Harbour, and crag-and-tail hills are found south of Loon Bay. Areas adjacent to the coast show large area of bedrock exposure, particularly west of New-Wes-Valley and north of Gander. Eskers are also found in the Caribou Lake area south of Gander Lake, the Mint Brook area near Gambo and the Terra Nova area. Areas of non-glacial sediment are generally confined to the valleys. The Great Rattling Brook, Southwest Gander River, Northwest Gander River and Gander River-valleys all contain moderate to well-sorted, stratified sand and gravel deposited in a glaciofluvial or fluvial environment. The Southwest and Northwest Gander River valleys are up to 6 km wide, with flat valley floors. They contain sand and gravel deposited by glaciofluvial outwash.

### 1.2.3 Soils

Portions of the districts have been surveyed with respect to soil profile, but information is lacking in other areas, particularly near the coast. A soil survey was conducted in the Gander – Gambo area that concluded the soils developed from glacial till. Podzolic soils are the main soils in the area with some orthic gleysols which are characterized by the lack of aeration and poor drainage. Sphagnum peat is the predominant type of organic deposit. Other types of organic soils found in the districts would be ericaceous peat and muck peat, both of which are less shallow in depth when compared to sphagnum peat. In relation

to tree growth, the podzolic soils support the following species: black spruce – *Picea mariana* (Mill.) B.S.P.; balsam fir - *Abies balsamea* (L.) Mill.; white birch - *Betula papyrifera* (Marsh).

#### 1.2.4 Climate

The climate of the four districts can be broken down into two main categories. The Central Newfoundland Ecoregion has the most continental climate on the island. As a result, it has the warmest summers and the coldest winters. The mean daily temperatures for July and February are +15°C to +16°C and -4°C to -8°C, respectively. The precipitation ranges from 900 mm to 1300 mm annually with 3.0 m to 5.3 m of snowfall. This ecoregion also has the least wind and fog for the island. Due to the warm summers and the highest rates of evapotranspiration, the soil moisture in this area is considered one of the driest on the island. A result of this is the high frequency of fire in this ecoregion due to its summer dryness.

The North Shore Ecoregion has the warmest summers of all the coastal regions on the island, and the winters are cool. The mean July temperatures range from +15°C to +16°C, while the February mean temperatures range from -5°C to -7°C. The precipitation for this area is between 900 mm and 1200 mm with snowfall amounts ranging from 2.5 m to 3.5 m. Due to its exposure, the high winds and high summer temperatures the high evapotranspiration rates cause the soil in this ecoregion to be the driest for the island. This region is also influenced by the cold Labrador Current flowing from the north, especially with its pack ice in the spring. This causes the growing season to be delayed when the sea ice is heavy.

### 1.3 Ecological Characteristics

#### 1.3.1 General

Planning Zone 3 is a forest ecosystem. A forest ecosystem, as the term implies, is an ecosystem dominated by tree cover. Like all forests in the province, Zone 3 is part of the Boreal forest ecosystem.

The tree species which characterize Zone 3 are typical of the Canadian boreal forest. Common boreal trees are black spruce, white spruce, balsam fir, eastern larch, trembling aspen, white birch, yellow birch, and jack pine. Jack pine is not native to the Island; all the other species commonly occur in the zone and in the province.

The two dominant species in zone 3 are black spruce (bS) and balsam fir (bF); together with softwood hardwood (sH) mixed wood types, bS, bF, and sH represent 77% percent of the zones' productive forest growing stock.

Black spruce is dominant in Zone 3 with the growing stock at approximately 59%, balsam fir comprises just 7% of the growing stock in zone 3.

The breakdown of current productive forest inventory tree species is shown in the table below.

TABLE 2: FOREST INVENTORY SPECIES BREAKDOWN IN PLANNING ZONE 3

| Species   | Total Hectares | Percentage of Productive Forest Land Cover |
|-----------|----------------|--------------------------------------------|
| bS        | 381,462        | 59.30%                                     |
| bF        | 42,196         | 6.56%                                      |
| wB+tA     | 9,647          | 1.50%                                      |
| sH        | 70,667         | 10.99%                                     |
| hS        | 28,464         | 4.43%                                      |
| Disturbed | 64,921         | 10.09%                                     |
| nS        | 45,859         | 7.13%                                      |
| eS        | 18             | 0.00%                                      |
| Total     | 643,234        | 100%                                       |

### 1.3.2 Forest Ecosystems

An ecosystem is a community of interacting and interdependent plants, animals and microorganisms, together with the physical environment within which they exist (adapted from Perry, 1994). It is important to remember that within an ecosystem the interactions between the biotic and abiotic components are at least as important as the component themselves. Another critical characteristic of ecosystems is their

overlapping boundaries. While each is definable in time and space, and distinguishable from adjacent ecosystems, each is intimately integrated with other local ecosystems. Additionally, each local ecosystem is nested within increasingly larger ecosystems. The scale at which an ecosystem is viewed is contingent on the species or abiotic characteristic under consideration. While planet earth represents the ultimate global ecosystem, complex ecosystems also exist under fallen logs and rocks.

A forest ecosystem, as the term implies, is an ecosystem dominated by tree cover. At the coarsest level, the forests of Planning Zone three, like all forests on the island, form part of the boreal forest ecosystem. The boreal forest is a green belt which spans much of the northern hemisphere. It stretches from the Atlantic shores of Scandinavia through Russia, across Alaska, through the mid latitudes of Canada until it reaches the Atlantic Ocean again in Newfoundland and Labrador.

One of the distinguishing characteristics of the boreal forest is the phenomena of periodic, catastrophic stand replacement natural disturbances such as fire and insect outbreaks which typically give rise to uniform, even aged forests dominated by a few tree species.

#### 1.3.2.1 Ecosystem Description – Ecoregions and Subregions

Damman 1979 defined ecoregions as areas where comparable vegetation and soil can be found on sites occupying similar topographic positions on the same parent material, provided that these sites have experienced a similar history of disturbance. Thus, an ecoregion cannot be defined in isolation from the physical landscape, but vegetation topo sequence, vegetation structure, floristic composition, and floristic distributions can provide the primary criteria.

According to Damman, nine ecoregions are represented in Newfoundland. Each of these is further divided into subregions (also known as ecodistricts). All the Newfoundland ecoregions and subregions contain many of the same ecosystem variables. It is the dominance and variance of these variables (e.g., vegetation and climate) that determine their classification.

The figure below depicts Planning Zone 3 relative to Damman's ecoregion classification system. The Central Newfoundland Forest Ecoregion encompasses most of the area in the zone and occupies the more productive sites.

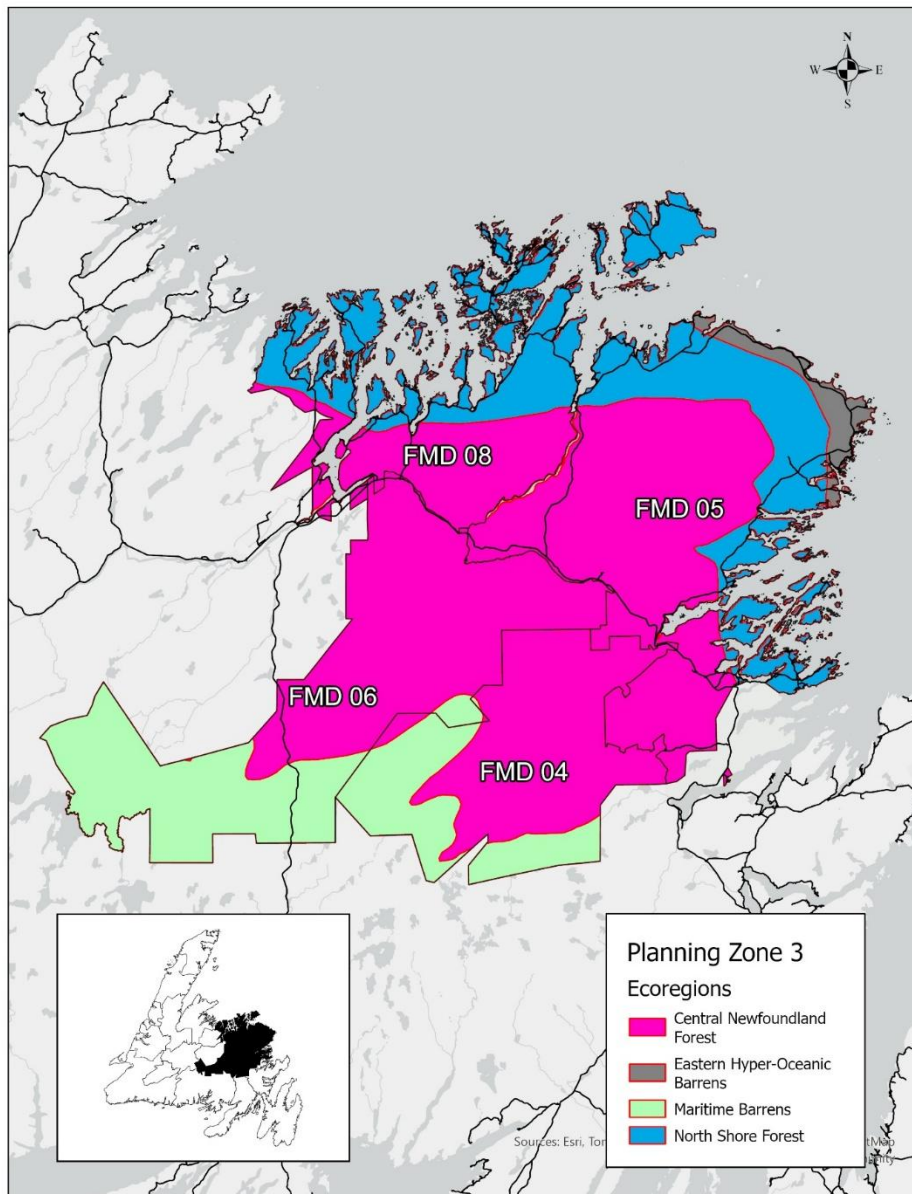


Figure 2: Ecoregions and Subregions of Planning Zone 3

#### 1.3.2.1.1 Central Newfoundland Forest Ecoregion

This ecoregion is in the north-central part of the island with a small outlet near Bay d 'Espoir. The topography is gently rolling to hilly with most elevations between 150 and 450 meters. It has the most continental climate in insular Newfoundland with the warmest summers and coldest winters. It has the least wind and fog of any ecoregion and a growing season of 140-160 days and average precipitation of 900-1300mm. This ecoregion is heavily forested and is the most distinctly boreal part of the island. Balsam fir, black spruce, and to a lesser extent white birch are the dominant tree species.

There is an extensive fire history in the Central Forest resulting in fire originating stands of black spruce and white birch that cover extensive areas in the northern and eastern portions. Trembling aspen forms local stands after fire but is restricted to the central and northern portion. Damman's classifications of *Hylocomium*-balsam fir is dominant in any areas not disturbed by fire. *Kalmia*-black spruce and *Pleurogium*-balsam fir forests are also common. The *Kalmia*-black spruce-lichen forests, which occur on outwash sands and gravels, are unique to this ecoregion. Red pine also occurs but is restricted to extremely dry sites.

#### 1.3.2.1.2 North Central Subregion

The North Central Subregion has the highest maximum temperatures, lowest rainfall, and highest forest fire frequency on the island. The subregion extends from Clarenville to Deer Lake with a mostly rolling topography of less than 200 meters. The history of fire is evident by the pure black spruce forest with white birch and aspen stands that dominate the subregion.

#### 1.3.2.1.3 North Shore Forest Ecoregion

This ecoregion includes the coastal zone along the north side of the Island, essentially a 20-25 km wide coastal zone, extending from the Bonavista Peninsula to the tip of the Baie Verte Peninsula. This ecoregion is mainly forested, and black spruce stands are common. Increased wind exposure causes a decrease in the quality and height of the forest towards the coast therefore coastal headlands are dominated by barrens. Overall, vegetation is like the Central Newfoundland Ecoregion, however, white spruce is more abundant and aspen is less common. The topography is irregular along the coast with many bays and inlets extending inland and is rolling too hilly. Elevations in this ecoregion are highest on the Baie Verte Peninsula reaching 315 m. The climate is the driest on the Island with warm coastal summers and cold winters. High summer temperatures can cause moisture deficiencies. The growing season is approximately 150 days and precipitation ranges from 900-1200 mm.

#### 1.3.2.1.4 Eastern Hyper-Oceanic Barrens Forest Ecoregion

This ecoregion occurs on the extreme south coast of the Avalon and Burin peninsulas and on the northeast coast near Bay de Verde and Cape Freels. Here, the extreme oceanic climate limits the development of forests other than Balsam Fir krummholz. The heaths in this ecoregion are like oceanic parts of northern

Scotland and southern Norway. This ecoregion constitutes very little of the land mass contained within the planning area being limited to the extreme northeastern coastline in FMD 5.

#### 1.3.2.1.5 Maritime Barrens Forest Ecoregion

This ecoregion extends from the east coast of Newfoundland to the west coast through the south-central portion of the island. It is characterized by relatively mild winters with intermittent snow covers and the coldest summers with frequent fog and strong winds. The dominant landscape pattern consists of usually stunted, almost pure stands of Balsam fir, broken by extensive open heathland. Good forest growth is located on long slopes of a few protected valleys. The heaths are dominated by *Kalmia angustifolia* on protected slopes where snow accumulates and by cushions of *Empetrum nigrum*, or *Empetrum eamesii* on windswept ridges. The southern portions of FMD's 4 and 6 extend into the northeastern extent of this ecoregion.

Table 3: Percentage of Ecoregions and Subregions in Planning Zone 3

|                               |                               | Total Area within Province (ha) | Percentage of Total Area Within Province Found Inside Zone 3 Management Districts |           |           |           |
|-------------------------------|-------------------------------|---------------------------------|-----------------------------------------------------------------------------------|-----------|-----------|-----------|
|                               |                               |                                 | FMD 4 (%)                                                                         | FMD 5 (%) | FMD 6 (%) | FMD 8 (%) |
| Central Newfoundland Forest   |                               |                                 |                                                                                   |           |           |           |
|                               | Northcentral Subregion        | 2,310,743                       | 8.77%                                                                             | 14.87%    | 12.04%    | 5.35%     |
| Eastern Hyper-Oceanic Barrens |                               |                                 |                                                                                   |           |           |           |
|                               | Eastern Hyper-Oceanic Barrens | 160,335                         | N/A                                                                               | 19.27%    | N/A       | N/A       |
| Maritime Barrens              |                               |                                 |                                                                                   |           |           |           |
|                               | Central Barrens Subregion     | 1,524,393                       | 6.54%                                                                             | N/A       | 11.39%    | N/A       |
| North Shore Forest            |                               |                                 |                                                                                   |           |           |           |
|                               | North Shore Forest            | 550,662                         | N/A                                                                               | 34.54%    | N/A       | 26.59%    |

## 1.4 Ecosystem Dynamics

### 1.4.1 Ecosystem Condition and Productivity

Landscape patterns determine the variety, integrity, and interconnectedness of habitats within a region. These landscape patterns are a direct result of the relationship amongst physical landforms and soils, disturbance history, and relationships among various species that make up the ecosystem communities. These factors, while listed separately for clarity, are unavoidably interrelated. Landscape patterns play a

pivotal role in determining the current conditions and health of forest ecosystems. These variables are evaluated in terms of productivity, stability, and resilience.

Another important role in determining the condition of a forest is change. Forests are an ever-evolving entity, resisting stagnation, and constantly moving through their cycles of life, death, and renewal. The process of change over time is the essence of nature itself. It has been nature's underlying storyline since time began and will continue to be until time ends.

The main forces of change in our natural forest ecosystems are disturbance and succession. A definition of disturbance would indicate that it initiates a change in a community structure which often ends up in the replacement of one set of species by another. However, replacement is not always the result (e.g., a species like black spruce is aided in germination by disturbances like forest fire).

Disturbances range from the fall of a single tree to the destruction of thousands of hectares by forest fires. While disturbances may be very destructive, they can often rejuvenate ecosystems and diversify landscapes.

Succession involves changes in both community composition and in the ecosystem structure and process. Succession is the orderly change whereby the dominant species is replaced by another species, then another etc., until a new dominant species establishes a relatively stable community.

#### 1.4.1.1 Productivity

Productivity is the accrual of matter and energy in biomass. In simple terms, primary productivity is the sum of all biomasses produced through photosynthesis. Secondary productivity occurs when this "primary" biomass is ingested and is added to that organism's biomass. Since secondary productivity is directly dependent on primary productivity, it is this primary productivity component that drives the system.

The level of primary production is dependent on the ability to produce biomass. This in turn is dependent on landscape features, soil, climate, etc. In general terms, the more productive (ability to grow trees) a site is, the higher level of primary productivity. For example, a forested stand would have a higher primary productivity than a bog, and a good site would have a higher potential than a poor site.

Overall, the landscape in Planning Zone Three has approximately 40 percent productive forest. The distribution of productive sites across the landscape and range of productivity within these sites is largely dependent on landscape patterns, climate, and soils.

The more productive areas occur in the lowlands and gently rolling uplands of the zone with the most productive being in the river valleys. These areas have deeper soils; less exposed bedrock and the landscape patterns are more consistent with longer growing season. In contrast, the northern parts of FMD's 5 and 8 along the coast have soils are shallower with bedrock at or near the surface. The terrain in northern parts is much rougher, and the growing season is shorter than in the valley lowlands (130 as opposed to 160 days).

In practice, it is nearly impossible to measure the amount of biomass produced in an ecosystem, or the energy consumed in the process. One method is tracking the mean annual increment in  $m^3/ha/yr$  by tree species by ecoregion. This can be readily measured over time and manipulated through silvicultural treatments or affected by poor harvesting practices that increase soil compaction. An example of secondary productivity is the number of moose per unit area. One must also recognize the forests' inherent biological limits, however, when attempting to measure or manipulate site productivity.

#### 1.4.1.2 Resilience

Ecosystem resilience reflects the ability of the ecosystem to absorb change and disturbance while maintaining the same productive capacity and the same relationships among populations. Healthy forest ecosystems maintain their resilience and adapt to periodic disturbances. The renewal of boreal forest ecosystems often depends on these disturbances. Resilience is characterized by the forest's ability to stabilize vital soil processes and maintain succession whereby the system is returned to a community composition, and the productivity level is consistent with the ecosystems' physical constraints following a disturbance. To a large degree, a forest ecosystem's resilience is controlled by properties such as climate, parent soil, topography, and flora.

The potential for populations to recover from low levels following disturbance by having adequate regeneration capacity and a balanced distribution of forest types and age classes provides a reliable measure of resilience at the landscape level. Indicators include the percent and extent of area by forest type and age class and the percentage of disturbed areas that are successfully regenerated. Resilience is

determined by measuring and monitoring these parameters. Forest activities must be carefully planned to not upset the natural balance and lower an ecosystem's resilience.

#### 1.4.1.3 Stability

Nature is constantly changing and going through the unending processes of disturbance, growth, senescence, and decay. Therefore, the stability of a forest ecosystem does not refer to one fixed position without variation. Ecosystem stability is more accurately defined as the maintenance of ecosystem changes within certain boundaries and the functional continuation of important potentials and processes such as energy capture.

There are three levels of stability: species stability, structural stability, and process stability. Species stability is the maintenance of viable populations or meta-populations of individual species. Structural stability is the stability of various aspects of ecosystem structure such as food web organization or species numbers. Process stability is the stability of processes such as primary productivity and nutrient cycling. To put stability in perspective, it must ensure that the system does not cross some threshold from which recovery to a former state is either impossible, (extinction) or occurs only after long periods of time or with outside input (e.g. loss of topsoil).

Some indicators of stability which can be monitored are areas of forest converted to non-forest use, area, percentage and representation of forest types in protected areas, percentage and extent of area by forest type and age class and change in distribution and abundance of various fauna. These indicators can be measured and monitored to ensure stability is maintained and to evaluate the impact, if any, of forest activities on ecosystem stability.

#### 1.4.1.4 Disturbance Regimes and Successional Patterns

There are four main driving forces that cause disturbance in the boreal forest. Forest harvesting can be considered a major disturbance in the zone, occurring on a regular and consistent basis. Windthrow, Fire and Insect damage are the other three major disturbances and occur on a more irregular or cyclic basis. Apart from a major windstorm, windthrow usually occurs after a stand is weakened by some other agents like insects. For this reason, successional patterns after insect damage and windthrow will be discussed

together. The following is a brief synopsis of successional patterns after each major disturbance type by forest type and site type.

#### 1.4.1.4.1 Harvesting

Regeneration patterns in the black spruce forest type after harvesting is mainly back to black spruce, the component of which increases as site productivity increases. Regeneration failure in this forest type has the potential to be high, where NSR rates increase from a low of near 10 percent on good sites to a high of approximately 50 percent on poor sites. These sites would be candidates for planting with White or Black spruce.

In the Balsam fir types, regeneration success back to Balsam fir is much higher averaging 65 percent. Regeneration rates to balsam fir are consistent on all site types. Regeneration failure is low at 10 percent.

Regeneration pattern in the mixed forest types is generally to Balsam fir or to mixed species dominated by Balsam fir. There is also a component of white spruce regeneration after harvest on these mixed forest types. There is a higher component of white birch regeneration after harvesting in types that had a higher percentage of hardwood before harvest. Also, the better the site class, the more hardwood regeneration. Regeneration failure on the mixed forest types is variable across site types and ecoregions depending on local conditions but averages 15 percent and is higher as the site gets poorer

Regeneration after harvest on the hardwood types is variable. Sites regenerate back to hardwood or to Balsam fir in varying proportions. Mixed wood regeneration is also common. Usually, the better the site the more likely the site will regenerate to hardwood.

#### 1.4.1.4.2 Fire

On the black spruce types, regeneration is usually back to black spruce with a minor component of balsam fir. More fir regenerates after fire on the better sites. Regeneration failure on the black spruce types is low on the better sites averaging 10 percent but increases to 45 percent as the sites get poorer. Regeneration patterns after fire on the balsam fir types occur in the same pattern as in black spruce. On the mixed wood types, regeneration is variable. The softwood hardwood sites regenerate to fir and mixed wood while the hardwood softwood sites tend to have a higher component of black spruce and trembling aspen. The component of hardwood in regeneration increases as the sites get better. Regeneration failure on the

mixed wood forest types, averages 10 percent and decreases as the component of hardwood in the original stand increases. Regeneration on the hardwood types is generally mixed with equal components of black spruce, balsam fir, white birch and trembling aspen. The hardwood component can be dominated by aspen if it was present in the original stand.

#### 1.4.1.4.3 Insect

Balsam fir is highly susceptible to insect attack from the hemlock looper and spruce budworm whereas black spruce and hardwood is hardly impacted by these insects. For this reason, stands with a high component of balsam fir are more susceptible to insect attack and subsequent wind throw.

Mature balsam fir types usually regenerate to balsam fir with a component of black spruce and mixed wood on the poorer sites. Disturbance by insects in young balsam fir stands can cause succession to white spruce. In black spruce stands regeneration is usually consistently back to black spruce across site types with a lesser component of balsam fir that increases as the sites improve. Regeneration patterns in mixed wood usually depend on the type of mixture. If black spruce is a component, then it will persist and form part of the new stand. Otherwise, balsam fir and balsam fir/hardwood mixtures regenerate after insect attack. Black spruce is also a component in stands with higher hardwood content. Regeneration patterns in the hardwood types are variable and can regenerate with equal components of black spruce, balsam fir, white birch and trembling aspen. Regeneration failure occurs approximately 10 percent of the time but can be significantly higher if pure stands of immature balsam fir are killed.

#### 1.4.2 Biodiversity

Biodiversity is a term used to describe the variety of life on earth. A basic definition of biodiversity includes the variety of animals, plants and microorganisms that exist on our planet, the genetic variety within these species, and the variety of ecosystems they inhabit.

While the boreal forest may not have the extent of biodiversity that some of the equatorial regions possess, Canada does have just over 70,000 species of plants, animals, and microorganisms in its boreal and other forest regions. While the boreal forest has less diversity of large plants than many other forest regions, it has greater biological diversity in some microorganisms. For example, the boreal forest has fewer tree species than the tropical rainforest but potentially up to 500 times as many mycorrhizal fungi. Despite the large number of organisms contained within the boreal forest, only a small amount are plants and

vertebrates. The larger portion remains largely unrecorded and unstudied. As a result, we need to manage with caution so that species are not inadvertently extirpated.

Biodiversity provides such essential services for humans such as climate control, oxygen production, purification of freshwater supplies, carbon dioxide removal from the atmosphere, soil generation, and nutrient cycling.

The three components of biodiversity are species diversity, genetic diversity, and ecosystem diversity.

#### 1.4.2.1 Species Diversity

Species diversity describes the overall range of species in each area or ecosystem. Species are groups of animals, plants, and microorganisms capable of producing fertile offspring. Species' extinction is the most dramatic and recognizable form of reduced biodiversity; habitat loss is the most drastic in terms of far-reaching effect. The prevention of species extinction is a key factor in the conservation of biodiversity. Changes in species population levels indicate the potential for serious changes in ecosystem integrity.

#### 1.4.2.2 Genetic Diversity

Genetic diversity describes the range of possible genetic characteristics found within and among different species. Hair and eye color, weight and height, are examples of genetic diversity found in humans. Genetic diversity within species is the foundation of all biodiversity. Assessing genetic diversity does not mean tracking every gene in the zone's forest. Responsible planning should design and implement measures which maintain or enhance viable populations of all forest vegetation species, and which use the genetic diversity of commercially important species to a maximum benefit. The genetic diversity of commercially important species can also be managed to increase economic benefit from some portions of the landscape while allowing other portions to provide greater social and ecological values. Genetic diversity is the basis by which populations (flora and fauna) can adapt to changing environmental conditions.

#### 1.4.2.3 Ecosystem Diversity

Ecosystem diversity describes the range of natural systems found throughout a region, a country, a continent, or the planet. Wetlands and grasslands are examples of ecosystems in Canada. A complex and

intricate mix of plants, animals, microorganisms and the soil, water, and air they occupy create virtually limitless ecosystems around the world.

A forest interspersed with barrens, marshes, lakes and ponds provides diversity across the landscape. Each ecoregion in the province should have representative areas protected which display the diversity where such exists. These areas can serve as a benchmark from which to measure and guide management decisions. These representative areas protect the integrity of the ecoregion and are vital for guiding management actions. As benchmark areas, they will illustrate the multi-species mosaic that planning actions must maintain.

## 1.5 Forest Characterization

### 1.5.1 Land Classification

There are four basic categories that currently represent how the land is classified by forestry interpretation, productive, nonproductive, non-forest, and a combination of wetland and fresh water.

The table below displays the land-classification for Planning Zone 3 broken down by district. The total area in the zone is approximately 1,615,852 hectares, including 221,597 ha's of area classified as wet bogs and freshwater, managed under Crown, Corner Brook Pulp and Paper tenure and one 20-year FMA managed by the Miawpukek First Nation

Table 4: Land Classification by District in Planning Zone 3

| Land Class                      | FMD 4         | FMD 5          | FMD 6          | FMD 8          |
|---------------------------------|---------------|----------------|----------------|----------------|
| Rock Barren                     | 644           | 19,163         | 1,159          | 4,751          |
| Soil Barren                     | 13,312        | 27,965         | 14,477         | 3,463          |
| Bogs/Treed Bogs                 | 45,452        | 96,537         | 69,240         | 27,171         |
| Cleared Land                    | 44            | 1,271          | 241            | 1,186          |
| Agriculture Land                | 23            | 386            | 40             | 663            |
| Residential                     | 108           | 4,676          | 199            | 4,867          |
| Right of Ways                   | 67            | 1,141          | 599            | 520            |
| Miscellaneous                   | 10            | 74             | 89             | 399            |
| <b>Total Non-Forested</b>       | <b>59,661</b> | <b>151,213</b> | <b>86,046</b>  | <b>43,020</b>  |
|                                 |               |                |                |                |
| Waterbodies                     | 27,005        | 69,056         | 44,835         | 19,387         |
| Wet Bogs                        | 26,935        | 7,569          | 22,345         | 4,464          |
| <b>Total Wetlands and Lakes</b> | <b>53,940</b> | <b>76,625</b>  | <b>67,180</b>  | <b>23,852</b>  |
|                                 |               |                |                |                |
| Non-Productive Softwood         | 91,596        | 123,998        | 119,114        | 42,826         |
| Non-Productive Hardwood         | 1,782         | 12,759         | 3,121          | 7,710          |
| Disturbed                       | 2,308         | 3,042          | 2,772          | 35             |
| <b>Total Non-Productive</b>     | <b>95,687</b> | <b>139,799</b> | <b>125,007</b> | <b>50,572</b>  |
|                                 |               |                |                |                |
| NS                              | 5,978         | 18,849         | 6,812          | 9,181          |
| Disturbed                       | 7,793         | 15,985         | 13,730         | 8,792          |
| Age Class 1                     | 8,186         | 26,063         | 13,508         | 20,055         |
| Age Class 2                     | 14,698        | 53,993         | 44,787         | 39,567         |
| Age Class 3                     | 14,027        | 25,880         | 27,740         | 16,975         |
| Age Class 4                     | 8,392         | 6,487          | 5,194          | 16,819         |
| Age Class 5                     | 7,007         | 54,361         | 7,370          | 36,484         |
| Age Class 6                     | 8,279         | 5,822          | 13,046         | 16,154         |
| Age Class 7                     | 18,568        | 1,167          | 41,402         | 191            |
| Age Class 8                     | 10            | 1,123          |                |                |
| Age Class 9                     | 24            | 1,017          |                | 1,734          |
| <b>Total Productive</b>         | <b>92,964</b> | <b>210,748</b> | <b>173,588</b> | <b>165,952</b> |

Figures below show the relative land classes for districts 4, 5, 6 and 8.



Figure 3: Land Class Breakdown for District 4

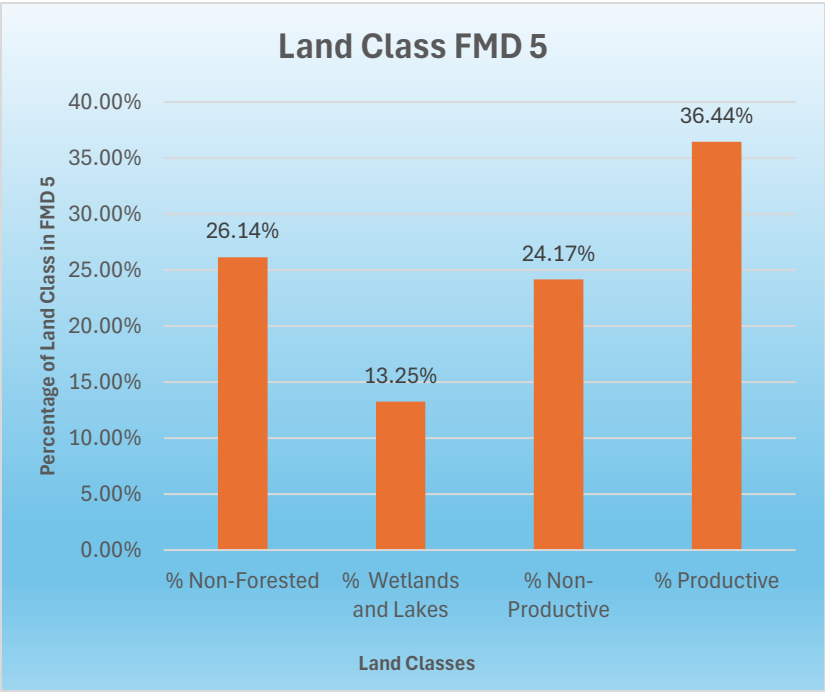


Figure 4: Land Class Breakdown for District 5



Figure 5: Land Class Breakdown for District 6

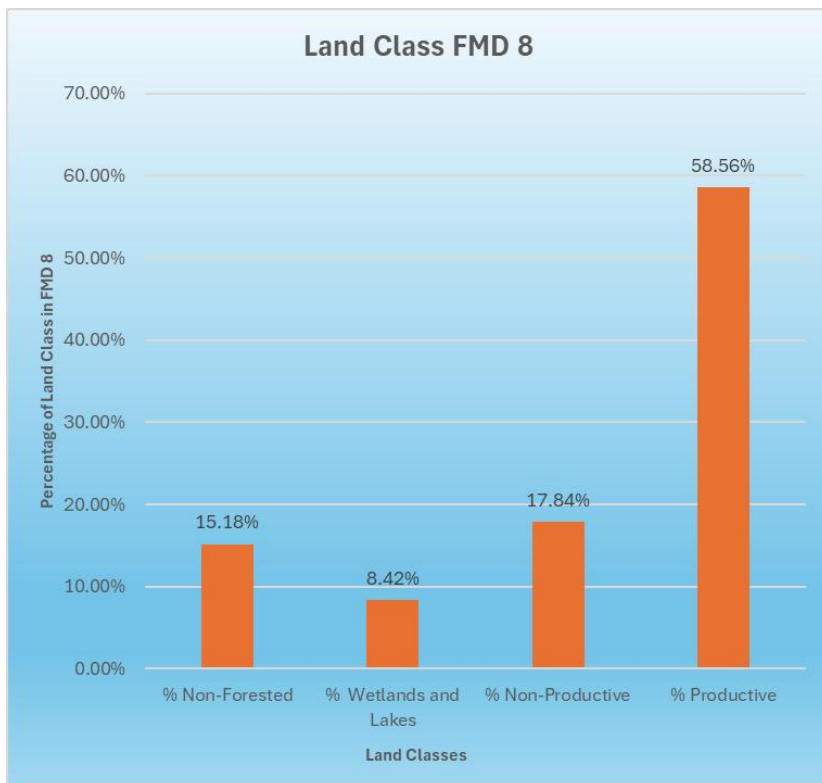


Figure 6: Land Class Breakdown for District 8

### 1.5.2 Age Class

Individual tree ages within any given stand have the potential to be the same after fire or planting. However, in most cases the ages vary. Foresters describe Newfoundland and Labrador Forest stand age in terms of age classes which encompass 20 years. The age classes present in the zone are described as recently disturbed and regenerating (age class 1, 0-20 years), immature (age class 2, 21-40 years), semi-mature (age class 3, 41-60 years), mature (age class 4, 61-80 years) and over-mature classes (age class 5, 81-100 years), (age class 6, 101-120 years), (age class 7, 121 - 140), (age class 8, 141 – 160, (age class 9, over 161). The age class distribution in each district for the entire productive forest is shown in Figures 5 and 6. In general terms, a continuous timber supply is limited by the lower age class. This means a more balanced age class distribution within a district would yield a greater opportunity for an even flow sustained yield of timber.

Figures below show the Age Class Distribution for districts 4, 5, 6, and 8.

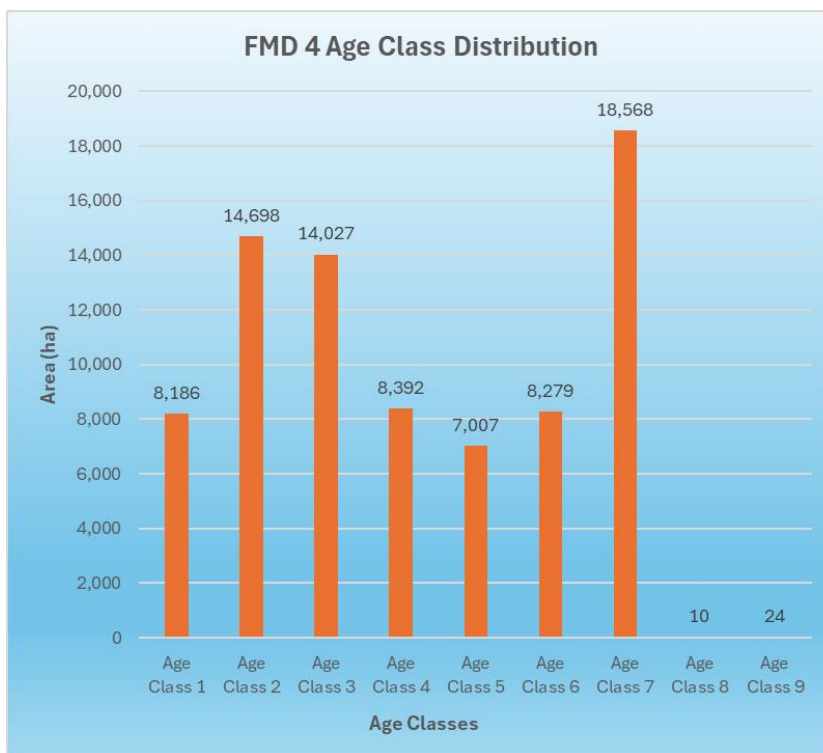


Figure 7: Age Class Distribution for District 4

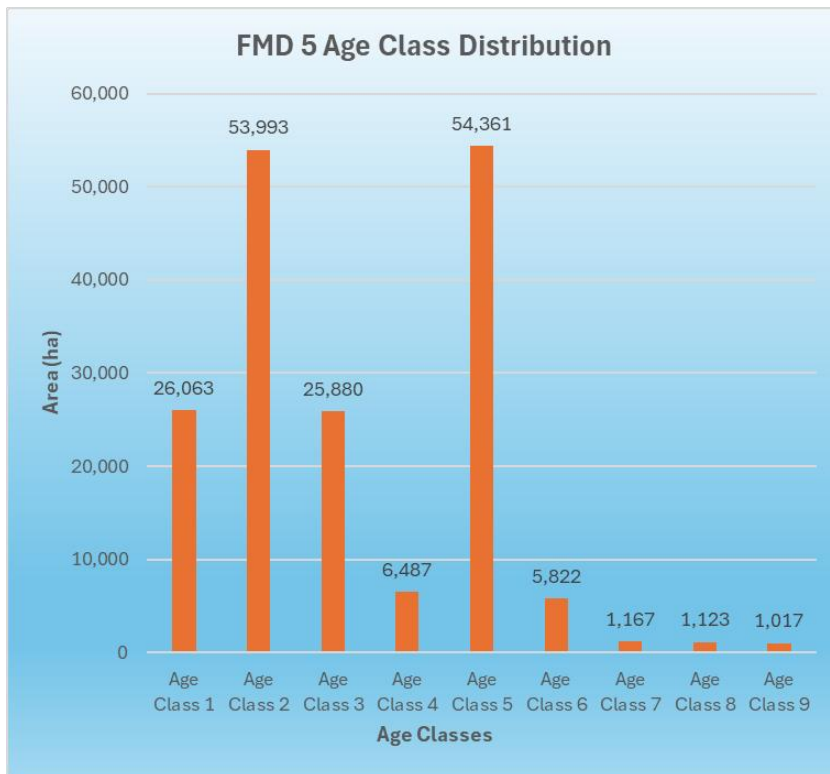


Figure 8: Age Class Distribution for District 5

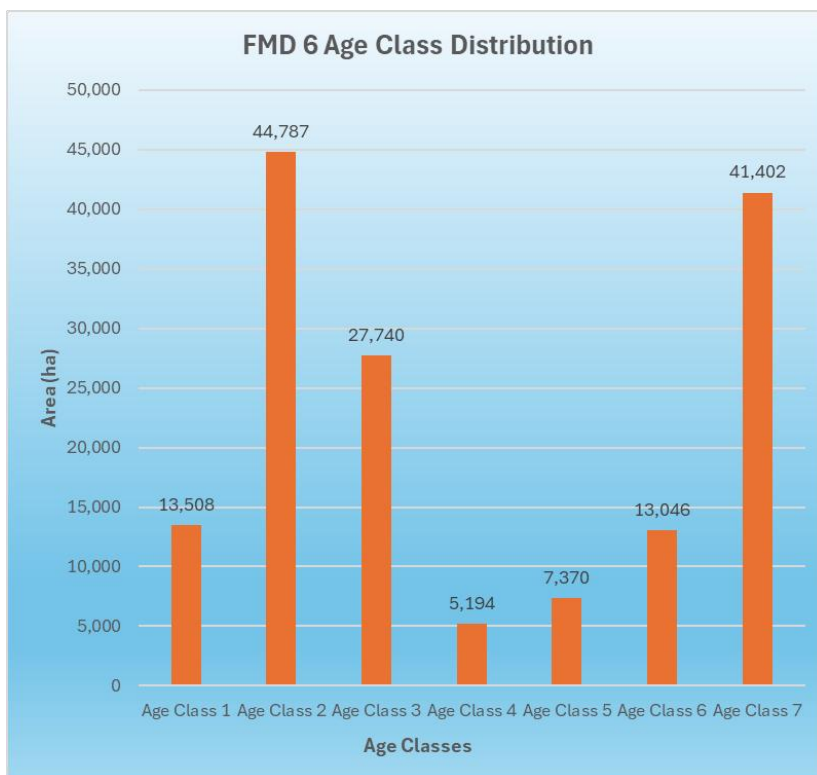


Figure 9: Age Class Distribution for District 6

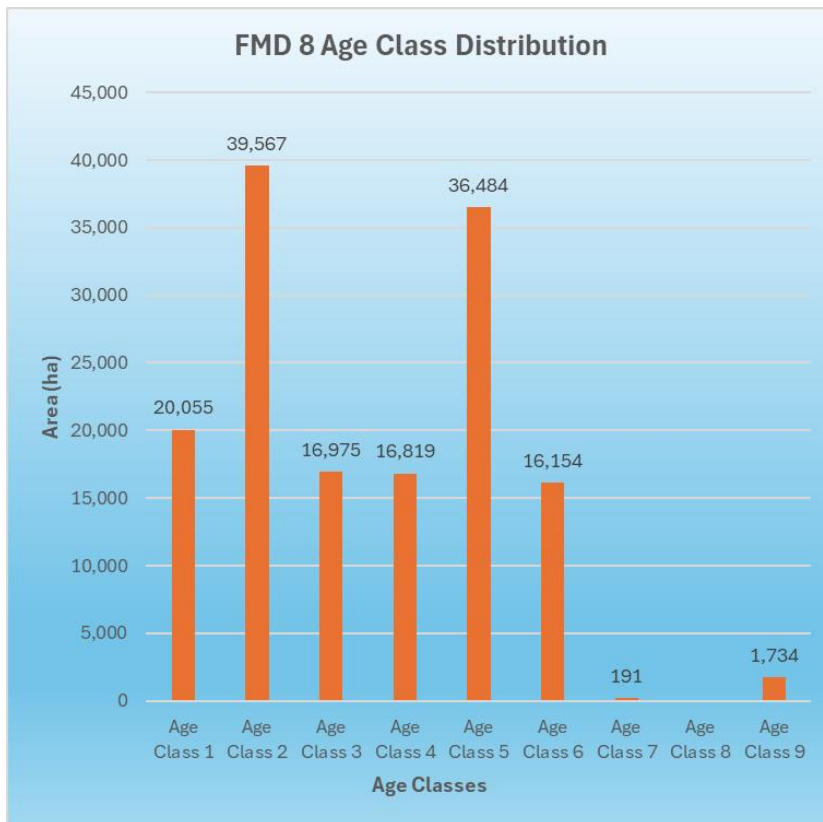


Figure 10: Age Class Distribution for District 8

### 1.5.3 Site Class

The productive forest in the zone is further sub-divided along a gradient of productivity ranging from poor to good site class. The site class is determined through air photo interpretation supplemented with field checks and is based primarily on the sites ability to produce timber. Site capability is determined on several factors including soil fertility, moisture regime and geographic (slope) position. The distribution of area by site class for each district is shown in Figures 11, 12, 13 and 14. On average, good sites can produce 2.6 m<sup>3</sup>/ha/yr, medium sites 1.7 m<sup>3</sup>/ha/yr, and poor sites 0.8 m<sup>3</sup>/ha/yr.

Figures below show the site classifications for districts 4, 5, 6 and 8.



Figure 11: Site Class Breakdown for District 4



Figure 12: Site Class Breakdown for District 5



Figure 13: Site Class Breakdown for District 6



Figure 14: Site Class Breakdown for District 8

#### 1.5.4 Species and Working Group

Working group is the term used to describe the dominant tree species present in a forest stand. This species may occupy 100 percent of crown closure of a stand or may be present in association with other species. The working group designation describes the stand in general terms based on the prevalent species as opposed to species composition which specifically describes the relative proportion of each individual tree species that make up a stand.

In the zone, the softwood working groups (bS, bF, and sH) dominate, accounting for over 77% of the productive forest. The black spruce (bS) working group is by far the most prolific accounting for 59% of the working groups. The softwood hardwood (sH) working group is the second most abundant, accounting for 11% and bF is 7% in the zone.

Hardwood working groups wB, tA, and hS occupy 6% of the productive forest in the four districts. Approximately 10% of the productive forests are classed as disturbed, which includes all disturbances harvesting, insect damage, fire, wind throw, and flooding. Approximately 7% are classed as non-stocked.

The graphs below show relative percentages which hold true for the four districts.

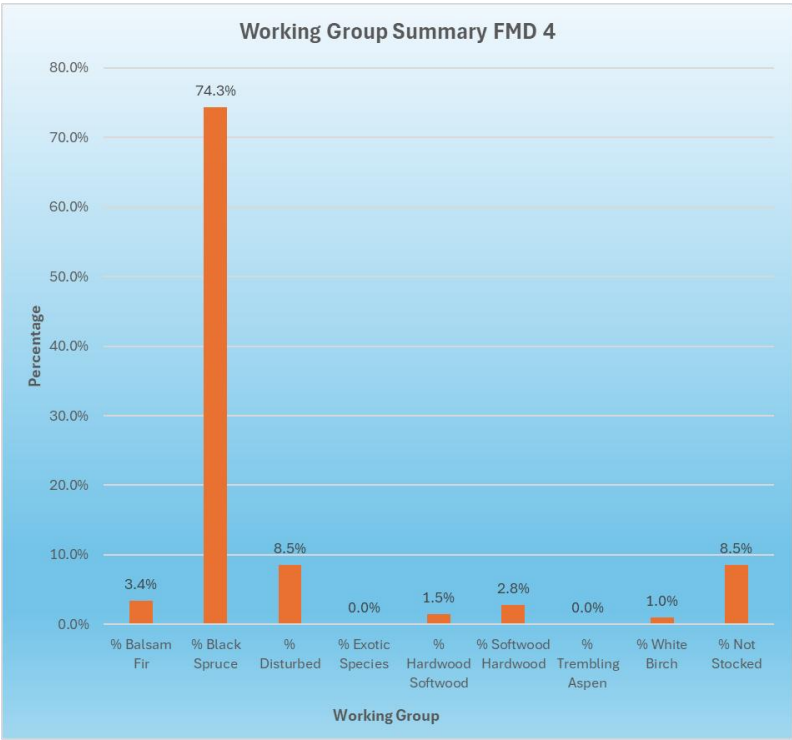


Figure 15: Working Group Breakdown for District 4

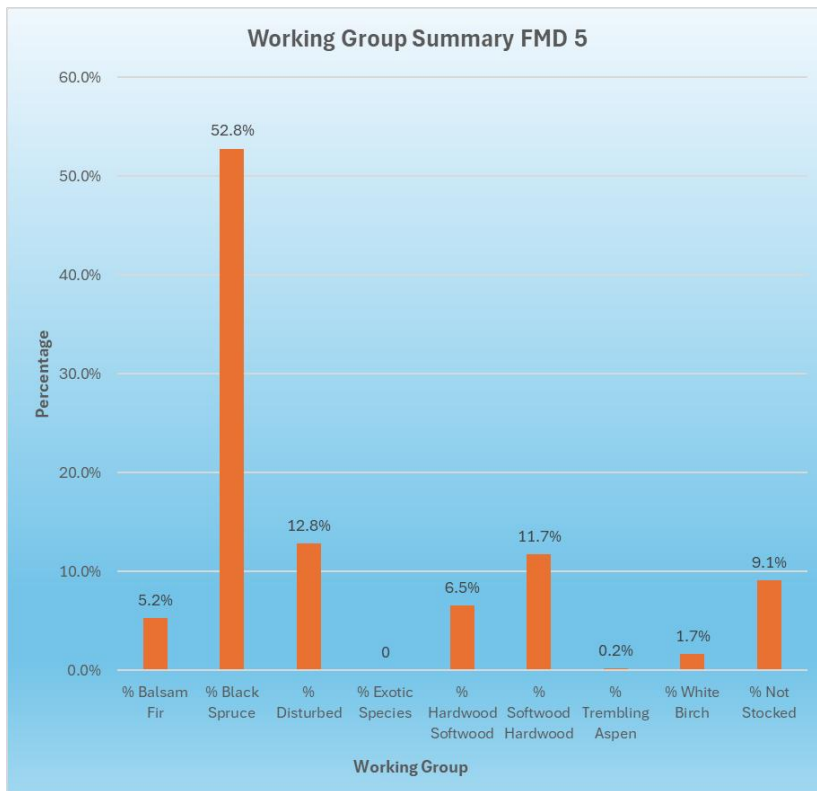


Figure 16: Working Group Breakdown for District 5

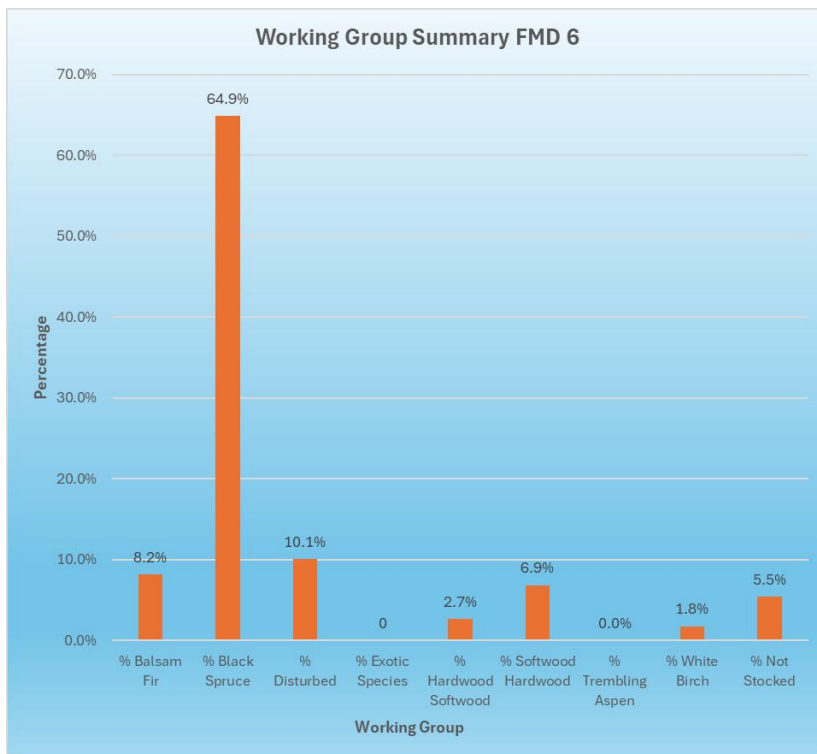


Figure 17: Working Group Breakdown for District 6

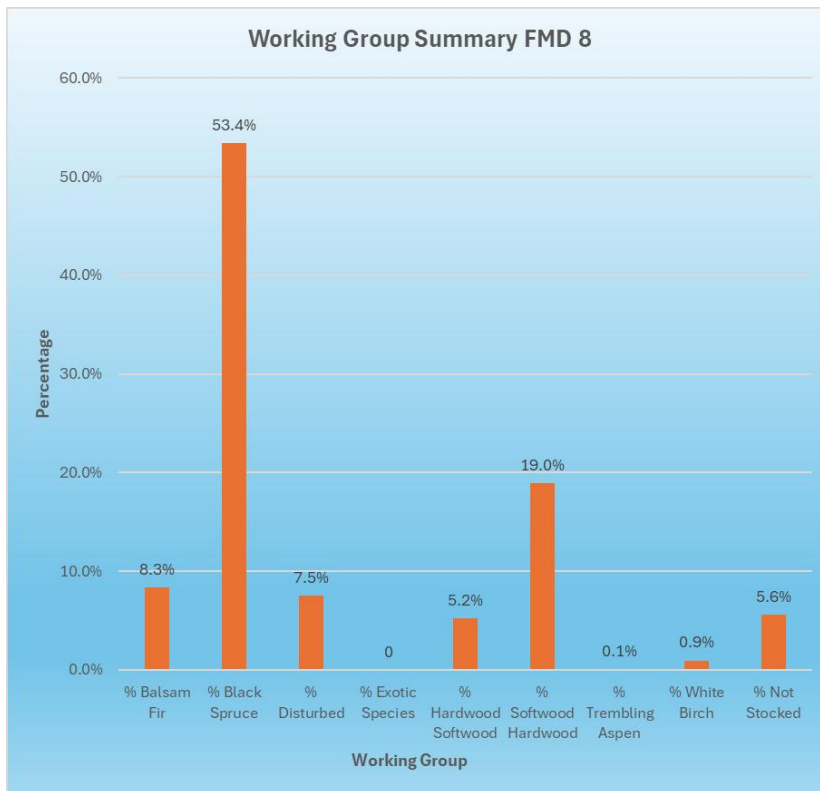


Figure 18: Working Group Breakdown for District 8

### 1.5.5 Forest Disturbances

Forest harvesting, fire, insects, and windthrow (blowdown) are considered forest disturbance types within the zone. High summer temperatures combined with low summer precipitation and prolonged dry spells make the zone susceptible to fire. There has been a cyclical fire history in the zone. However, in recent years, loss has been minimal due to weather conditions, fire prevention activities and enhanced fire suppression capability. The Canadian trend has been increasing fire frequency and severity. The 2025 forest fire season on the Island was severe.

The inventory species composition of Zone 3 shows the true fire history story, 76% of the productive forest in the zone consists of what is considered fire origin stand types; bS, sH, wB, and tA.

The main forest insects which have affected forests in the zone are the hemlock looper (1949, 1961, 1962, 1969, 1986-88, 1995, 1996), the balsam woolly adelgid (1963, 1970-present) and the birch casebearer (1970-present).

The spruce budworm attack in the zone occurred in 1956, and 1978-80 to 2020. The Spruce budworm was at low levels in the 1978-80 to 2020 period. This level has been increasing since 2020 and is anticipated to increase further in this upcoming planning period.

Foresters schedule managed harvests, using stand inventory information, to coincide with the period in the forest lifecycle where the forest is becoming susceptible to natural disturbance.

## SECTION 2 PAST ACTIVITIES

### 2.1 Forest Management Zone 3

#### 2.1.1 Harvesting

##### 2.1.1.1 Commercial – Crown Tenure

The crown commercial harvest for zone 3 from 2022-2026 are shown in the tables below. The volumes for 2026 were estimated from the allocations issued to date.

Table 5: Crown 2022 - 2026 Commercial Harvest District 4

| District 04<br>Crown |           | Core    |            |           | Operational (Available) |            |           | Non-AAC Wood |            |
|----------------------|-----------|---------|------------|-----------|-------------------------|------------|-----------|--------------|------------|
|                      |           | AAC     | Commercial | Deviation | AAC                     | Commercial | Deviation | Operational  | Regulatory |
| SWD                  | 2022      | 38,000  | 3,065      | 34,935    | 7,500                   | 0          | 7,500     |              |            |
|                      | 2023      | 38,000  | 2,855      | 35,145    | 7,500                   | 0          | 7,500     |              |            |
|                      | 2024      | 38,000  | 0          | 38,000    | 7,500                   | 0          | 7,500     |              |            |
|                      | 2025      | 38,000  | 0          | 38,000    | 7,500                   | 0          | 7,500     |              |            |
|                      | 2026      | 38,000  | 23,200     | 14,800    | 7,500                   | 0          | 7,500     |              |            |
|                      | Sub-Total | 190,000 | 29,120     | 160,880   | 37,500                  | 0          | 37,500    |              |            |
|                      |           | Core    |            |           | Operational (Available) |            |           | Non-AAC Wood |            |
|                      |           | AAC     | Commercial | Deviation | AAC                     | Commercial | Deviation | Operational  | Regulatory |
| HWD                  | 2022      | 300     | 46         | 254       | 20                      | 0          | 20        |              |            |
|                      | 2023      | 300     | 733        | -433      | 20                      | 0          | 20        |              |            |
|                      | 2024      | 300     | 1,102      | -802      | 20                      | 0          | 20        |              |            |
|                      | 2025      | 300     | 0          | 300       | 20                      | 0          | 20        |              |            |
|                      | 2026      | 300     | 0          | 300       | 20                      | 0          | 20        |              |            |
|                      | Sub-Total | 1,500   | 1,881      | -381      | 100                     | 0          | 100       |              |            |
| District Total       |           | 191,500 | 31,001     | 160,499   | 37,600                  | 0          | 37,600    |              |            |

Table 6: Crown 2022 - 2026 Commercial Harvest District 5

| District 05<br>Crown |           | Core    |            |           | Operational (Available) |            |           | Non-AAC Wood |            |
|----------------------|-----------|---------|------------|-----------|-------------------------|------------|-----------|--------------|------------|
|                      |           | AAC     | Commercial | Deviation | AAC                     | Commercial | Deviation | Operational  | Regulatory |
| SWD                  | 2022      | 31,000  | 12,575     | 18,425    | 12,500                  | 0          | 12,500    |              |            |
|                      | 2023      | 31,000  | 8,684      | 22,316    | 12,500                  | 0          | 12,500    |              |            |
|                      | 2024      | 31,000  | 10,531     | 20,469    | 12,500                  | 0          | 12,500    | 138          |            |
|                      | 2025      | 31,000  | 22,192     | 8,808     | 12,500                  | 0          | 12,500    |              |            |
|                      | 2026      | 31,000  | 54,487     | -23,487   | 12,500                  | 0          | 12,500    |              |            |
|                      | Sub-Total | 155,000 | 108,469    | 46,531    | 62,500                  | 0          | 62,500    | 138          |            |
|                      |           | Core    |            |           | Operational (Available) |            |           | Non-AAC Wood |            |
|                      |           | AAC     | Commercial | Deviation | AAC                     | Commercial | Deviation | Operational  | Regulatory |
| HWD                  | 2022      | 1,200   | 357        | 843       | 500                     | 0          | 500       |              |            |
|                      | 2023      | 1,200   | 223        | 977       | 500                     | 0          | 500       |              |            |
|                      | 2024      | 1,200   | 786        | 414       | 500                     | 0          | 500       | 2            |            |
|                      | 2025      | 1,200   | 1,609      | -409      | 500                     | 0          | 500       |              |            |
|                      | 2026      | 1,200   | 1,609      | -409      | 500                     | 0          | 500       |              |            |
|                      | Sub-Total | 6,000   | 4,584      | 1,416     | 2,500                   | 0          | 2,500     | 2            |            |
| District Total       |           | 161,000 | 113,053    | 47,947    | 65,000                  | 0          | 65,000    | 140          |            |

TABLE 7: CROWN 2022 - 2026 COMMERCIAL HARVEST DISTRICT 6

| District 06<br>Crown |           | Core    |            |           | Operational (Available) |            |           | Non-AAC Wood |            |
|----------------------|-----------|---------|------------|-----------|-------------------------|------------|-----------|--------------|------------|
|                      |           | AAC     | Commercial | Deviation | AAC                     | Commercial | Deviation | Operational  | Regulatory |
| SWD                  | 2022      | 26,000  | 3,337      | 22,663    | 3,500                   | 0          | 3,500     | 0            |            |
|                      | 2023      | 26,000  | 2,957      | 23,043    | 3,500                   | 0          | 3,500     | 533          |            |
|                      | 2024      | 26,000  | 4,971      | 21,029    | 3,500                   | 0          | 3,500     | 0            |            |
|                      | 2025      | 26,000  | 3,741      | 22,259    | 3,500                   | 0          | 3,500     | 850          |            |
|                      | 2026      | 26,000  | 5,900      | 20,100    | 3,500                   | 0          | 3,500     | 850          |            |
|                      | Sub-Total | 130,000 | 20,906     | 109,094   | 17,500                  | 0          | 17,500    | 2,233        |            |
|                      |           | Core    |            |           | Operational (Available) |            |           | Non-AAC Wood |            |
|                      |           | AAC     | Commercial | Deviation | AAC                     | Commercial | Deviation | Operational  | Regulatory |
| HWD                  | 2022      | 400     | 0          | 400       | 60                      | 0          | 60        |              |            |
|                      | 2023      | 400     | 0          | 400       | 60                      | 0          | 60        |              |            |
|                      | 2024      | 400     | 0          | 400       | 60                      | 0          | 60        |              |            |
|                      | 2025      | 400     | 23         | 377       | 60                      | 0          | 60        |              |            |
|                      | 2026      | 400     | 0          | 400       | 60                      | 0          | 60        |              |            |
|                      | Sub-Total | 2,000   | 23         | 1,977     | 300                     | 0          | 300       |              |            |
| District Total       |           | 132,000 | 20,929     | 111,071   | 17,800                  | 0          | 17,800    | 2,233        |            |

**TABLE 8: CROWN 2022 - 2026 COMMERCIAL HARVEST DISTRICT 8**

| District 08<br>Crown |           | Core    |            |           | Operational (Available) |            |           | Non-AAC Wood |            |
|----------------------|-----------|---------|------------|-----------|-------------------------|------------|-----------|--------------|------------|
|                      |           | AAC     | Commercial | Deviation | AAC                     | Commercial | Deviation | Operational  | Regulatory |
| SWD                  | 2022      | 63,000  | 39,359     | 23,641    | 21,000                  | 0          | 21,000    | 1,095        |            |
|                      | 2023      | 63,000  | 42,430     | 20,570    | 21,000                  | 0          | 21,000    |              |            |
|                      | 2024      | 63,000  | 48,430     | 14,570    | 21,000                  | 0          | 21,000    |              |            |
|                      | 2025      | 63,000  | 43,683     | 19,317    | 21,000                  | 0          | 21,000    | 57           |            |
|                      | 2026      | 63,000  | 58,950     | 4,050     | 21,000                  | 0          | 21,000    | 57           |            |
|                      | Sub-Total | 315,000 | 232,852    | 82,148    | 105,000                 | 0          | 105,000   | 1,210        |            |
|                      |           | Core    |            |           | Operational (Available) |            |           | Non-AAC Wood |            |
|                      |           | AAC     | Commercial | Deviation | AAC                     | Commercial | Deviation | Operational  | Regulatory |
| HWD                  | 2022      | 2,200   | 2,735      | -535      | 900                     | 0          | 900       |              |            |
|                      | 2023      | 2,200   | 2,047      | 153       | 900                     | 0          | 900       |              |            |
|                      | 2024      | 2,200   | 3,459      | -1,259    | 900                     | 0          | 900       |              |            |
|                      | 2025      | 2,200   | 2,802      | -602      | 900                     | 0          | 900       | 15           |            |
|                      | 2026      | 2,200   | 0          | 2,200     | 900                     | 0          | 900       | 15           |            |
|                      | Sub-Total | 11,000  | 11,043     | -43       | 4,500                   | 0          | 4,500     | 30           |            |
| District Total       |           | 326,000 | 243,895    | 82,105    | 109,500                 | 0          | 109,500   | 1,240        |            |

### 2.1.1.2 Domestic

The estimate of domestic volume harvested from districts 4, 6, and 8 is included in the commercial section above.

Districts 4 and 8 did not have a separate domestic AAC allocation in the 2022-2026 plan, the domestic harvest areas were scheduled within the commercial harvest areas for those districts. The commercial tables include the estimated domestic harvest estimates.

District 6 had a small domestic AAC of 2,500 m<sup>3</sup> allocated, however the reported domestic harvesting from district 6 was also included in the commercial tables.

Districts 5 had domestic AAC calculated and operating areas for domestic only. The crown domestic harvest for district 5 for 2022-2026 is shown in table below.

Table 9: 2022 - 2026 Domestic Harvest District 5

| District 05<br>Crown |           | Core       |          |           | Operational (Available) |          |           | Non-AAC Wood |            |
|----------------------|-----------|------------|----------|-----------|-------------------------|----------|-----------|--------------|------------|
|                      |           | AAC        | Domestic | Deviation | AAC                     | Domestic | Deviation | Operational  | Regulatory |
| SWD                  | 2022      | 43,500     | 19,759   | 23,741    | N/A                     |          |           |              |            |
|                      | 2023      | 43,500     | 25,960   | 17,540    | N/A                     |          |           |              |            |
|                      | 2024      | 43,500     | 25,277   | 18,223    | N/A                     |          |           |              |            |
|                      | 2025      | 43,500     | 23,723   | 19,777    | N/A                     |          |           |              |            |
|                      | 2026      | 43,500     | 23,723   | 19,777    | N/A                     |          |           |              |            |
|                      | Sub-Total | 217,500    | 118,442  | 99,058    | N/A                     |          |           |              |            |
|                      |           | Incidental |          |           | Operational (Available) |          |           | Non-AAC Wood |            |
|                      |           | AAC        | Domestic | Deviation | AAC                     | Domestic | Deviation | Operational  | Regulatory |
| HWD                  | 2022      | 2,900      | 3,249    | -349      | N/A                     |          |           |              |            |
|                      | 2023      | 2,900      | 1,703    | 1,197     | N/A                     |          |           |              |            |
|                      | 2024      | 2,900      | 1,651    | 1,249     | N/A                     |          |           |              |            |
|                      | 2025      | 2,900      | 1,556    | 1,344     | N/A                     |          |           |              |            |
|                      | 2026      | 2,900      | 1,556    | 1,344     | N/A                     |          |           |              |            |
|                      | Sub-Total | 14,500     | 9,715    | 4,785     | N/A                     |          |           |              |            |
| District Total       |           | 232,000    | 128,157  | 103,843   |                         |          |           |              |            |

### 2.1.2 Silviculture

The tables below summarize the completed silviculture treatments by district in zone 3 for the period 2022–2026. (Silviculture levels for 2026 were estimated from the 2025 levels.)

There was no silviculture completed in district 4 from 2022-2026.

Table 10: 2022 - 2026 Silviculture Treatments District 5

| Treatment Type            | Area (ha) |         |
|---------------------------|-----------|---------|
|                           | Proposed  | Treated |
| Pre-Commercial Thinning   | 20.62     | 20.62   |
| Site Preparation (raking) | 280.3     | 303.9   |
| Planting                  | 650       | 642     |
| Commercial Thinning       | 0         | 0       |
| Prescribed Burning        | 0         | 0       |

Table 11: 2022 - 2026 Silviculture Treatments District 6

| Treatment Type            | Area (ha) |         |
|---------------------------|-----------|---------|
|                           | Proposed  | Treated |
| Pre-Commerical Thinning   | 0         | 0       |
| Site Preparation (raking) | 121       | 154.6   |
| Planting                  | 314.7     | 121.1   |
| Commercial Thinning       | 0         | 0       |
| Prescribed Burning        | 0         | 0       |

TABLE 12: 2022 - 2026 SILVICULTURE TREATMENTS DISTRICT 8

| Treatment Type            | Area (ha) |         |
|---------------------------|-----------|---------|
|                           | Proposed  | Treated |
| Pre-Commerical Thinning   | 0         | 0       |
| Site Preparation (raking) | 655.8     | 666.1   |
| Planting                  | 1225.24   | 1179.83 |
| Commercial Thinning       | 0         | 0       |
| Prescribed Burning        | 0         | 0       |

### 2.1.3 Road Construction

The tables below summarize forest access road construction in the zone for the period 2022-2026 (Road construction levels for 2026 were estimated from the 2025 levels.)

Table 13: 2022 - 2026 Road Construction District 4

| Construction Type | Proposed (km)         | Constructed (km) |
|-------------------|-----------------------|------------------|
| New Construction  | 2.5                   | 2.4              |
| Re-Construction   | 0                     | 0                |
| Total             | 0                     | 0                |
| Grading           | 630 (Total FMD 4,5,6) | 630              |
| Bridges           | 0                     | 0                |

Table 14: 2022 - 2026 Road Construction District 5

| Construction Type | Proposed (km)         | Constructed (km) |
|-------------------|-----------------------|------------------|
| New Construction  | 16.4                  | 15.1             |
| Re-Construction   | 4.5                   | 4.5              |
| Grading           | 630 (Total FMD 4,5,6) | 630              |
| Bridges           | 1                     | 0                |

TABLE 15: 2022 - 2026 ROAD CONSTRUCTION DISTRICT 6

| Construction Type | Proposed (km)         | Constructed (km) |
|-------------------|-----------------------|------------------|
| New Construction  | 3                     | 3                |
| Re-Construction   | 0                     | 0                |
| Grading           | 630 (Total FMD 4,5,6) | 630              |
| Bridges           | 0                     | 0                |

TABLE 16: 2022 - 2026 ROAD CONSTRUCTION DISTRICT 8

| Construction Type | Proposed (km) | Constructed (km) |
|-------------------|---------------|------------------|
| New Construction  | 7.7           | 7.7              |
| Re-Construction   | 5.9           | 5.9              |
| Grading           | 76.5          | 76.5             |
| Total             | 13.6          | 13.6             |
| Bridges           | 6             | 6                |

## 2.1.4 Natural Disturbance

### 2.1.4.1 Fire

The total wildfire frequency and area burnt for the first 4 years (2022-2025) of the previous 5-year plan period was available at the development of this plan. The frequency and total area of wildfire for 2025 was like the previous four years, however the eastern and central regions of the island had extreme fire events. The tables below show the fire frequency for 2022 – 2025 with an average estimate for 2026.

Table 17: 2022 - 2026 District 4 Wildfire Summary

| Year         | District | Number of Fires | Area Burnt (ha) |
|--------------|----------|-----------------|-----------------|
| 2022         | 4        | 5               | 221.2           |
| 2023         | 4        | 0               | 0               |
| 2024         | 4        | 0               | 0               |
| 2025         | 4        | 1               | 0.1             |
| 2026         | 4        | 1.5             | 55.325          |
| <b>Total</b> |          | <b>7.5</b>      | <b>276.625</b>  |

Note: 2026 estimate is the average of 2022-2025

Table 18: 2022 - 2026 District 5 Wildfire Summary

| Year         | District | Number of Fires | Area Burnt (ha) |
|--------------|----------|-----------------|-----------------|
| 2022         | 5        | 10              | 2.1             |
| 2023         | 5        | 5               | 0.4             |
| 2024         | 5        | 4               | 0.1             |
| 2025         | 5        | 19              | 1139.7          |
| 2026         | 5        | 9.5             | 285.575         |
| <b>Total</b> |          | <b>47.5</b>     | <b>1427.875</b> |

Note: 2026 estimate is the average of 2022-2025

TABLE 19: 2022 - 2026 DISTRICT 6 WILDFIRE SUMMARY

| Year         | District | Number of Fires | Area Burnt (ha) |
|--------------|----------|-----------------|-----------------|
| 2022         | 6        | 3               | 59.5            |
| 2023         | 6        | 0               | 0               |
| 2024         | 6        | 0               | 0               |
| 2025         | 6        | 0               | 0               |
| 2026         | 6        | 0.75            | 14.875          |
| <b>Total</b> |          | <b>3.75</b>     | <b>74.375</b>   |

Note: 2026 estimate is the average of 2022-2025

TABLE 20: 2022 - 2026 DISTRICT 8 WILDFIRE SUMMARY

| Year         | District | Number of Fires | Area Burnt (ha) |
|--------------|----------|-----------------|-----------------|
| 2022         | 8        | 11              | 284.7           |
| 2023         | 8        | 5               | 0.4             |
| 2024         | 8        | 3               | 0.3             |
| 2025         | 8        | 13              | 5               |
| 2026         | 8        | 8               | 72.6            |
| <b>Total</b> |          | <b>40</b>       | <b>363</b>      |

Note: 2026 estimate is the average of 2022-2025

The increasing fire frequency and area burnt in recent years in Canada, the severity of fires in zone 3, and east of the zone in 2025, may indicate an increasing and alarming trend.

The estimated wildfire frequency and area used for 2026 was the average for the 2022-2025 period. The 5-year plan period is a small window in the life of a forest and further discussion on wildfire frequency and area impacted is covered in Section 8 of this plan.

#### 2.1.4.2 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, the of 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 while 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 during the pandemic other areas in Atlantic Canada did not treat that year. During that summer, 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 and lifted off to infest new areas and weather patterns were ideal for long range transport 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 compliment 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 3 TIMBER SUPPLY ANALYSIS**

### **3.1 Introduction**

The province conducts a review of timber supply every five years to reflect any changes in forest land base, growth rates, and management strategies. This schedule is consistent with the Forestry Act, with oversight by forest management districts, and mandates a wood supply analysis to be completed every five years. The result of this analysis is the establishment of annual allowable cuts (AAC's) for each forest management district. These AAC's are defined as the maximum annual rate at which timber can be harvested at a sustainable level in the future (applicable for a period of 160 years). Annual allowable cuts must be calculated on a district basis, and the cumulative sum would provide the total island's annual allowable harvest level.

With improvements in computer modeling and GIS data management, a new wood supply was developed for the districts in Zone 3 for the period 2027-2031 in 2026. This updated analysis aligns the timber supply analysis to the new Five-year planning period and is consistent with SFM strategies.

### **3.2 Guiding Principles and Policy Direction**

1. The key underlying principles guiding the provincial wood supply analysis are:
2. The AAC must be sustainable.
3. The level of uncertainty associated with the AAC must be minimized by using empirical information wherever possible.
4. There must be conformity between information and assumptions used in the analysis and actions and decisions taken on the ground.
5. The analysis must be consistent with other forest values and objectives; and

6. The timber supply calculation must consider economic factors, not solely the physical supply of timber.

In addition to the establishment of sustainable timber harvest levels, the legislation also requires that forest harvesting does not exceed the total five-year plan established by AAC's. It is government's policy to optimize forest industry opportunities from sustainable fiber supply.

It is still unavoidable that the AAC's will change in each succeeding five-year period. There is a downward trend as competing development occurs. The loss of productive forest land has a 1:1 effect on the AAC. Improvements in silviculture methods and tree improvement can offset some of the effects of land base loss.

### 3.3 Factors Affecting Timber Supply

The forests of Newfoundland and Labrador are variable in terms of age distribution. Typically, there are significant amounts of mature/over-mature forests and regenerating forests and limited intermediate aged forests. This imbalance is not unusual in a boreal forest where large areas experience natural cyclic disturbances. Wind and harvesting are disturbances that occur in overmature and mature sites. Insect infestation commonly occurs on overmature sites; however, it can spread into mature stands. Fire commonly occurs on overmature sites as well; however, when conditions are dry, it can extend into all age classes.

This imbalanced age class structure of intermediate age forest within insular Newfoundland and Labrador is one of the most important factors influencing AAC's and is therefore the basis for many of the department's forest management strategies. Essentially, the department uses a matrix of management techniques designed to minimize the imbalance in age structure. These techniques range from an aggressive forest protection program (insect control and fire suppression), forest harvesting programs that try to exclusively target harvesting the oldest stands first, and pre-commercial thinning of the regenerating forest so that it becomes merchantable and ready for harvest at an earlier age.

Another important aspect of the province's forest that poses a challenge to forest managers is the natural fragmentation of forest resources. The province's landscape is carved by wetlands, ponds, bogs, rivers, streams, and rock outcrops resulting in relatively small pockets of timber scattered across the landscape. These conditions are very challenging when finding the economic availability of timber supply.

The most important factor affecting present and future AAC's is the land base. The land base available for forest activity is constantly being reduced due to other land use requirements. There is an approximate correlation between AAC and land base in that a one percent loss of land base is a one percent drop in AAC. Therefore, it is very important that we continue to find methods to minimize the loss of the productive land base and expand efforts to increase volume in the existing land base.

Reduction of the forest land base is unavoidable. There will be loss for agriculture, urban areas, other development needs, loss of land base for the protection of riparian areas (buffers), and for other values.

The entire province of Newfoundland and Labrador lies within the Boreal Forest Ecosystem. Professional foresters are trained specialists in forest ecosystem management and are guided by the Canada Council of Forest Ministers (CCFM) SFM criteria and indicators. Foresters use adaptive management techniques to carry out the goal of SFM.

The establishment of fixed width buffers and unmanaged areas reduces the land base and without professional oversight may also increase risk. Overmature forest areas created in buffers are subject to increased windthrow and fuel loads, resulting in increased wildland fires, fire intensity, and release of stored carbon.

### 3.4 Timber Supply Analysis

The timber supply analysis is structured to find sustainable timber availability, while respecting social, economic, and environmental objectives. Timber supply, in this context, refers to the rate at which timber is made available for harvesting on a sustainable basis. This analysis results in an Annual Allowable Cut (AAC) estimate.

The determination of supply (represented as AAC's) involves the use of computer models to forecast the sustainability of possible AAC levels. These models require three basic inputs as described below:

1. Description of the current state of the forest (forest characterization and availability),
2. Growth rates associated with the current forest, and
3. Management strategies applied to the forest.

These basic inputs require careful and detailed consideration of a broad range of both timber and non-timber values. The following topics in this section are considered when determining sustainable timber supply.

### 3.4.1 Forest Characterization

To realize the current description of the forest resource (referred to as forest stock), the province has invested significant resources into creating and maintaining a Provincial Forest Inventory. The forest inventory program is designed to ensure the estimate of forest stock is current and accurate, while other regular programs employed by the department also evaluate:

1. Natural and man-made disturbances (fire, insects and harvesting)
2. Enhancement activities (tree planting and pre-commercial thinning)
3. The delineated stands within the forest inventory are updated to reflect any yield changes.

The Provincial Forest Inventory holds a vast wealth of information related to the provincial forested and non-forested land base, including wetlands, streams, lakes, and non-commercial vegetation. Such information aids in the management of other landscape values such as wildlife habitat assessment, carbon sequestration, and overall forest health.

### 3.4.2 Land Availability

Through regular timber supply analysis, the Forest Inventory is updated and classified at the stand level based on harvest potential. This classification system consists of six broad land classes that are manually defined by foresters based upon the ground knowledge of the forest management districts:

1. Core - available for harvest under normal operating conditions.
2. Operational – adverse conditions for forest harvesting, making that land base more expensive and less available under current economic conditions. However, an AAC is still calculated in the event of improved economic conditions, making the area more feasible for commercial operations.
3. Domestic – Land base set aside from commercial operations for harvest by domestic wood harvesters as a source of firewood and logs.
4. XLB (excluded land base) – unavailable for forest harvesting. No AAC is calculated on this land base, which incorporates a broad range of timber and non-timber values.
5. SNCF – Areas of noncommercial softwood or hardwood scrub that aren't economical for harvest. These areas don't contribute to AAC calculations.
6. WBLB (water buffer land base) – Areas excluded from harvest within a standard 30m no harvest water buffer.

#### 3.4.2.1 Non-Timber Related

Implementation of non-timber values within the productive forest has a direct impact on provincial AAC's. As the amount of productive forested landbase available for timber management declines, so will the AAC.

Forested Land (productive and non-productive) in Zone 3 consists of 65% of the total area in the Zone, however the entire commercial capable, or productive, forest land base in Zone 3 only consists of 40% of the total area in the zone. The productive forest landbase is constantly being reduced due to competing land use requirements for agriculture and other urban and industrial uses. Most land use changes occur on the productive forest land base.

The low (40%) productive forest land base is also dispersed and naturally fragmented. The spatial location of harvestable forest area is comprised of small groups of merchantable size timber separated by younger timber, nonproductive forest, lakes / wetlands, and non-forest land.

Foresters need to manage as much of the available productive forest land base as possible to be economically viable.

##### 3.4.2.1.1 No-Cut Buffer Zones

The Department has implemented guidelines requiring all water bodies (on 1:50,000 topographic maps) to be given a minimum 30-meter unharvested buffer, measured from the shoreline, or from each stream bank. In addition to the streams found on 1:50,000 scale topographic maps, all streams found in the field are evaluated based upon the Environmental Protection Guidelines for Forestry Operations in Newfoundland and Labrador and may also receive a 30-meter unharvested buffer.

District Ecosystem Managers, in consultation with interested stakeholders, may increase buffer zone widths to protect special values such as salmon spawning areas, cabin development areas, aesthetic areas, wildlife habitat, outfitting camps, etc.

There are no options for management of these zones that allow for any harvesting levels. The establishment of buffer zones is critical for water protection; however, it results in a further loss of productive forest land base in the zone.

#### 3.4.2.1.2 Pine Marten and Caribou Habitat

Wildlife Habitat specialists are working in consultation with industry to ensure future adequate habitat remains available for wildlife species such as pine marten and caribou. Analysis of the land base continues with examining the quantity and quality of habitat, as well as the required connectivity. Wildlife specialists also examine how this arrangement of habitat would change over time. Forest management strategies take into consideration the results and recommendations of the Wildlife Habitat Specialists.

#### 3.4.2.1.3 Protected Areas

All established and proposed protected areas approved within the Natural Areas Systems Plan (NASP) are removed from potential harvest considerations and the AAC calculations. These protected areas, while not available for harvesting, are still actioned by forestry when wildland fires occur.

#### 3.4.2.2 Timber Related

The potential AAC within a Forest Management District is also further impacted by considering other potential losses of land base or timber as indicated below:

##### 3.4.2.2.1 Insect/Fire/Disease Losses

The department reduces AAC's account for anticipated future losses resulting from insects, disease and fire using historical information.

##### 3.4.2.2.2 Logging Losses

Surveys of harvested areas conducted throughout the province are used to determine the quantity and quality of fiber remaining after harvest. The estimate of remaining fibre is the logging loss. The percentage estimate from these surveys is used to reduce the AAC.

#### 3.4.2.2.3 Operational Constraints

Areas that are inaccessible (surrounded by bogs or hills), timber on steep slopes, and selected low volume stands are removed from the Core AAC calculation. Also, significant adjustments are applied to the provincial forest inventory for stands deemed operable in timber analysis but left unharvested within operating areas. The reasons for this are linked to the character of Newfoundland's forests, low volume, steep slopes, rough terrain, and excessively wet ground conditions, etc.

All these timber and non-timber related issues are applied directly in the AAC calculation to ensure harvest levels do not exceed the sustainable level. With the introduction of new values and the broader application of current values, negative pressure on future AAC's will continue to increase.

#### 3.4.3 Growth Forecasting

A key requirement for forecasting future wood supply is an understanding of how forest stands grow and develop over time. That is, as a forest stand develops, how much merchantable (i.e. harvestable) volume does it carry at any given point? These yield forecasts (referred to as yield curves) are required for each type of forest stand (called a stratum) comprising the forest. In Newfoundland, there are dozens of distinct forest strata for which separate yield curves are required. These are defined by the tree species in question (e.g., balsam fir, black spruce), the site quality (e.g., good, medium, poor), the geographic region (e.g., the Northern Peninsula, Western Newfoundland), and other factors likely to affect yield.

Yield curves are a key element in wood supply analysis. In fact, the validity, or "usefulness", of the wood supply analysis is determined by the truth, or "correctness", of the yield forecasts. While there is no way of predicting with one hundred percent certainty how stands will grow in the future, care must be taken to ensure that the yield projections are realistic and reasonable. Respecting the sensitivity and importance of these forecasts, the department has directed a large portion of its resources and time into developing accurate yield curves. A growth model was used to project stand development under natural and managed (i.e., silviculturally enhanced) conditions. Tree and stand development data generated from the department's forest inventory program permanent sample plots and temporary sample plots were used to make stand growth predictions. These projections were then evaluated against empirical data from recent temporary point sample data measured throughout the island. If the projections varied from the empirical evidence, the curves were adjusted to make them more accurate where supporting data was available.

In this analysis, yield curves were developed on an ecoregion basis. Also, special yield curve sets were developed for defined geographic areas with demonstrated uniqueness. These include areas where chronic insect activity is ongoing and areas that have unique growth characteristics.

### 3.4.4 Management Strategies

With the current state of the forest described and the yield forecasts developed, the next step was to design a management strategy for each sector of the forest. The key objective was to maximize long term AAC while at the same time considering other forest values. This involved developing strategies that minimize fiber losses and enhance forest sustainability.

#### 3.4.4.1 Adaptive Management Strategies – Forest Management District 8

Harvesting across the District 8 land base has become increasingly challenging over the past decade due to operational and geographic constraints. The Bay of Exploits creates a natural division within the district, separating the eastern and western portions of the land base and requiring significant road travel to move harvesting operations between them.

Commercial harvesting is currently concentrated on the eastern side of the Bay of Exploits, extending to the Gander River. Opportunities on the western side are constrained by rugged terrain in many commercially viable areas, increasing the complexity and cost of road construction, timber extraction, and harvesting activities. These factors limit the operational feasibility of sustained commercial harvesting in the area.

Historically, harvesting contractors have operated primarily in the eastern portion of District 8, while most contractors that previously worked in the west no longer hold timber allocations within the district. Given the additional travel requirements, higher operating costs, and challenging terrain, it is unlikely that contractors currently operating in the east would relocate to the western portion under existing conditions.

Despite these constraints, opportunities remain for new operators interested in harvesting on the western side of the district. Identifying a realistic and sustainable harvest level for this area would help support future allocations and the development of operations better suited to the western land base. Given the significant differences in access, terrain, and operational conditions, the eastern and western portions of District 8 should be considered distinct operating areas for AAC determination and allocation planning. Establishing realistic and achievable AACs for each side of the Bay of Exploits would provide a more accurate

representation of available timber supply, support evaluation of the sustainability of existing allocations, and identify timber that may be available for future allocation.

Accordingly, the wood supply analysis for the District 8 five-year management plan was partitioned into two geographic operating areas to better reflect harvesting opportunities and operational conditions across the district.

#### 3.4.4.2 Harvest Flow Constraints

An even-flow harvest constraint strategy is utilized in wood supply analysis. This strategy produces the maximum even flow harvest but results in less than optimum economic use of the forest resource. Conversely, if this strategy was not applied, harvest levels are permitted to fluctuate, which may result in increased commercial potential of the forest at specific intervals. However, applying the even-flow constraint provides stability within the forest industry.

#### 3.4.4.3 Spatial Analysis

The provincial wood supply analysis implements a technique of computer-generated block generation followed by manual harvest block scheduling. The blocking software (Stanley) uses rules such as adjacency and minimum block size to create initial harvest block areas.

All the operational restrictions within a forest management district cannot be input into the Stanley optimizer. Professional forest managers utilize training, experience, and local knowledge to modify the Stanley output. District staff can identify specific ground conditions that restrict commercial harvesting, which are then incorporated into a spatial harvest schedule. The proposed harvest schedule is then vetted back through the modeling software to ensure sustainable and non-timber objectives are met. In most cases, this process must go through several cycles before an acceptable harvest schedule can be implemented. The spatial arrangement of areas for timber harvesting is especially challenging in this province because of the natural fragmentation of our forests. This model provided forest planners with the ability to mimic realistic timber harvest schedules based on current practices and to identify other forest stands that are not as accessible for harvesting, without incurring higher costs to access these blocks. The process allows the plan to be realistic, and the harvest levels to be economically attainable.

Spatial harvest scheduling has several major benefits. First, it fosters the long-term sustainability of our AAC's by mimicking current harvest practices and accounting for actual on the ground conditions that delay

or restrict the harvesting of stands. Historically, even with the use of computers, spatial restrictions were largely unaccounted for. Spatial schedules have made our AAC's genuinely sustainable. Secondly, the mapped harvest schedules build credibility into the forest management process.

Having the ability to visualize the timber that will be harvested in the future helps reassure the resource is being used in a responsible manner. Next, harvest scheduling helps integrate the management of other forest resource values into timber management planning. Specific forest values can be directly related to forest areas, which can be mapped, and potential issues can be addressed. Finally, the harvest schedule maps developed for the wood supply analysis can be a starting point for a 5-year operational planning process. Worthy to note is that harvest scheduling is completed for Core land base only. Operable AAC, for the most part, is considered opportunistic if economic conditions become favorable.

#### 3.4.4.4 Planning Horizons

Given the province's commitment to long term sustainability of our forest resource, timber supplies are projected 160 years (equivalent to two forest rotations) into the future to ensure actions and strategies applied today will result in a sustainable forest in the future. Long term planning is fundamental in timber supply forecasting.

#### 3.4.4.5 Operable Growing Stock Buffer

The province imposed an operable growing stock constraint in the analysis to ensure the sustainability of calculated timber supplies. This constraint imposes a condition that in any period there must be a minimum operable growing stock of two times the harvest level on the landscape. The requirement for a growing stock buffer is based on several factors including:

1. Some of the non-timber objectives are not explicitly accounted for in the planning process and therefore will require a growing stock buffer to achieve them.
2. The ability to completely incorporate the optimum harvest schedule due to operational restrictions on commercial harvesting.
3. Lowers the overall risk associated with the sustainability of the timber supply.

#### 3.4.4.6 Old Forest Targets

Within the wood supply analysis, the department considers a target for old forests, where at least 15 percent of forests at any given time must be older than 80 years. This is a minimum target; actual results are usually higher. This initiative was designed to provide a coarse filter approach to maintaining representative forest structure. It ensures the presence of certain amounts of old forests across the landscape in the future and can be tracked across a district.

#### 3.4.4.7 Operability Limits

Operability limits are the timeframe in which forest harvesting activity can be undertaken within specific forest stands. Stand growth development (merchantable timber volume) and individual piece size of trees are factors which determine a stands readiness for commercial harvest activity. To meet management objectives and maximize the total volume of wood harvested, the Woodstock model schedules harvests inside the operability limit window defined as the period between the minimum harvest age and the maximum harvest age. Stands younger than the minimum harvest age will have small trees that are uneconomical to harvest yet and stands older than the maximum harvest age may have begun to break apart and have lost enough volume that they too are no longer economical to harvest. Operability limits vary for different species types, growing on different site qualities and when growing at different tree densities.

The operability limits for stands for districts 4, 5, 6 and 8 are defined in the tables below:

| District | Treatment | Species               | Site             | Density  | Min | Max |
|----------|-----------|-----------------------|------------------|----------|-----|-----|
| FMD 4    | Natural   | Balsam Fir            | Good,Medium      | D1,D2,D3 | 60  | 120 |
|          |           | Balsam Fir            | Poor             | D1,D2,D3 | 70  | 100 |
|          |           | Black Spruce          | Good,Medium      | D1,D2    | 60  | 150 |
|          |           | Black Spruce          | Good             | D3       | 60  | 140 |
|          |           | Black Spruce          | Medium           | D3       | 60  | 120 |
|          |           | Black Spruce          | Poor             | D1       | 70  | 150 |
|          |           | Black Spruce          | Poor             | D2,D3    | 70  | 140 |
|          |           | Softwood/Hardwood     | Good,Medium      | D1,D2    | 60  | 120 |
|          |           | Softwood/Hardwood     | Good,Medium      | D3       | 60  | 100 |
|          |           | Softwood/Hardwood     | Poor             | D1,D2    | 70  | 100 |
|          |           | Softwood/Hardwood     | Poor             | D3       | 70  | 100 |
|          |           | Hardwood/Softwood     | Good,Medium      | D1,D2,D3 | 60  | 120 |
|          |           | Hardwood/Softwood     | Poor             | D1,D2,D3 | 70  | 120 |
|          |           | White Spruce          | Good,Medium      | D1,D2    | 60  | 150 |
|          |           | White Spruce          | Good,Medium      | D3       | 60  | 140 |
|          |           | White Spruce          | Poor             | D1       | 70  | 150 |
|          |           | White Spruce          | Poor             | D2,D3    | 70  | 130 |
|          |           | White Birch           | Good,Medium,Poor | D1,D2,D3 | 60  | 120 |
|          |           | Trembling Aspen       | Good,Medium,Poor | D1,D2,D3 | 60  | 120 |
|          | Managed   | All Plantations       | Good             | N/A      | 40  | 150 |
|          |           | All Plantations       | Medium           | N/A      | 50  | 150 |
|          |           | All Plantations       | Poor             | N/A      | 60  | 110 |
|          |           | Balsam Fir PCT        | Good             | N/A      | 40  | 130 |
|          |           | Balsam Fir PCT        | Medium           | N/A      | 50  | 130 |
|          |           | Balsam Fir PCT        | Poor             | N/A      | 60  | 110 |
|          |           | Black Spruce PCT      | Good             | N/A      | 40  | 150 |
|          |           | Black Spruce PCT      | Medium           | N/A      | 50  | 150 |
|          |           | Black Spruce PCT      | Poor             | N/A      | 60  | 110 |
|          |           | Softwood/Hardwood PCT | Good             | N/A      | 40  | 150 |
|          |           | Softwood/Hardwood PCT | Medium           | N/A      | 50  | 150 |
|          |           | Softwood/Hardwood PCT | Poor             | N/A      | 60  | 110 |

Figure 19: Operability Limits Forest Management District 4

| District | Treatment | Species               | Site             | Density  | Min | Max |
|----------|-----------|-----------------------|------------------|----------|-----|-----|
| FMD 5    | Natural   | Balsam Fir            | Good,Medium      | D1,D2,D3 | 60  | 120 |
|          |           | Balsam Fir            | Poor             | D1,D2,D3 | 70  | 100 |
|          |           | Black Spruce          | Good,Medium      | D1,D2    | 60  | 150 |
|          |           | Black Spruce          | Good             | D3       | 60  | 140 |
|          |           | Black Spruce          | Medium           | D3       | 60  | 120 |
|          |           | Black Spruce          | Poor             | D1       | 70  | 150 |
|          |           | Black Spruce          | Poor             | D2,D3    | 70  | 140 |
|          |           | Softwood/Hardwood     | Good,Medium      | D1,D2    | 60  | 120 |
|          |           | Softwood/Hardwood     | Good,Medium      | D3       | 60  | 100 |
|          |           | Softwood/Hardwood     | Poor             | D1,D2    | 70  | 100 |
|          |           | Softwood/Hardwood     | Poor             | D3       | 70  | 100 |
|          |           | Hardwood/Softwood     | Good,Medium      | D1,D2,D3 | 60  | 120 |
|          |           | Hardwood/Softwood     | Poor             | D1,D2,D3 | 70  | 120 |
|          |           | White Spruce          | Good,Medium      | D1,D2    | 60  | 150 |
|          |           | White Spruce          | Good,Medium      | D3       | 60  | 140 |
|          |           | White Spruce          | Poor             | D1       | 70  | 150 |
|          |           | White Spruce          | Poor             | D2,D3    | 70  | 130 |
|          |           | White Birch           | Good,Medium,Poor | D1,D2,D3 | 60  | 120 |
|          |           | Trembling Aspen       | Good,Medium,Poor | D1,D2,D3 | 60  | 120 |
|          | Managed   | All Plantations       | Good             | N/A      | 40  | 150 |
|          |           | All Plantations       | Medium           | N/A      | 50  | 150 |
|          |           | All Plantations       | Poor             | N/A      | 60  | 110 |
|          |           | Balsam Fir PCT        | Good             | N/A      | 40  | 130 |
|          |           | Balsam Fir PCT        | Medium           | N/A      | 50  | 130 |
|          |           | Balsam Fir PCT        | Poor             | N/A      | 60  | 110 |
|          |           | Black Spruce PCT      | Good             | N/A      | 40  | 150 |
|          |           | Black Spruce PCT      | Medium           | N/A      | 50  | 150 |
|          |           | Black Spruce PCT      | Poor             | N/A      | 60  | 110 |
|          |           | Softwood/Hardwood PCT | Good             | N/A      | 40  | 150 |
|          |           | Softwood/Hardwood PCT | Medium           | N/A      | 50  | 150 |
|          |           | Softwood/Hardwood PCT | Poor             | N/A      | 60  | 110 |

FIGURE 20: OPERABILITY LIMITS FOREST MANAGEMENT DISTRICT 5

| District | Treatment | Species               | Site             | Density  | Min | Max |
|----------|-----------|-----------------------|------------------|----------|-----|-----|
| FMD 6    | Natural   | Balsam Fir            | Good,Medium      | D1,D2,D3 | 60  | 120 |
|          |           | Balsam Fir            | Poor             | D1,D2,D3 | 70  | 100 |
|          |           | Black Spruce          | Good,Medium      | D1,D2    | 60  | 150 |
|          |           | Black Spruce          | Good             | D3       | 60  | 140 |
|          |           | Black Spruce          | Medium           | D3       | 60  | 120 |
|          |           | Black Spruce          | Poor             | D1       | 70  | 150 |
|          |           | Black Spruce          | Poor             | D2,D3    | 70  | 140 |
|          |           | Softwood/Hardwood     | Good,Medium      | D1,D2    | 60  | 120 |
|          |           | Softwood/Hardwood     | Good,Medium      | D3       | 60  | 100 |
|          |           | Softwood/Hardwood     | Poor             | D1,D2    | 70  | 100 |
|          |           | Softwood/Hardwood     | Poor             | D3       | 70  | 100 |
|          |           | Hardwood/Softwood     | Good,Medium      | D1,D2,D3 | 60  | 120 |
|          |           | Hardwood/Softwood     | Poor             | D1,D2,D3 | 70  | 120 |
|          |           | White Spruce          | Good,Medium      | D1,D2    | 60  | 150 |
|          |           | White Spruce          | Good,Medium      | D3       | 60  | 140 |
|          |           | White Spruce          | Poor             | D1       | 70  | 150 |
|          |           | White Spruce          | Poor             | D2,D3    | 70  | 130 |
|          |           | White Birch           | Good,Medium,Poor | D1,D2,D3 | 60  | 120 |
|          |           | Trembling Aspen       | Good,Medium,Poor | D1,D2,D3 | 60  | 120 |
|          | Managed   | All Plantations       | Good             | N/A      | 40  | 150 |
|          |           | All Plantations       | Medium           | N/A      | 50  | 150 |
|          |           | All Plantations       | Poor             | N/A      | 60  | 110 |
|          |           | Balsam Fir PCT        | Good             | N/A      | 40  | 130 |
|          |           | Balsam Fir PCT        | Medium           | N/A      | 50  | 130 |
|          |           | Balsam Fir PCT        | Poor             | N/A      | 60  | 110 |
|          |           | Black Spruce PCT      | Good             | N/A      | 40  | 150 |
|          |           | Black Spruce PCT      | Medium           | N/A      | 50  | 150 |
|          |           | Black Spruce PCT      | Poor             | N/A      | 60  | 110 |
|          |           | Softwood/Hardwood PCT | Good             | N/A      | 40  | 150 |
|          |           | Softwood/Hardwood PCT | Medium           | N/A      | 50  | 150 |
|          |           | Softwood/Hardwood PCT | Poor             | N/A      | 60  | 110 |

FIGURE 21: OPERABILITY LIMITS FOREST MANAGEMENT DISTRICT 6

| District | Treatment | Species               | Site             | Density  | Min | Max |
|----------|-----------|-----------------------|------------------|----------|-----|-----|
| FMD 8    | Natural   | Balsam Fir            | Good,Medium      | D1,D2,D3 | 60  | 120 |
|          |           | Balsam Fir            | Poor             | D1,D2,D3 | 70  | 100 |
|          |           | Black Spruce          | Good,Medium      | D1,D2    | 60  | 150 |
|          |           | Black Spruce          | Good             | D3       | 60  | 140 |
|          |           | Black Spruce          | Medium           | D3       | 60  | 120 |
|          |           | Black Spruce          | Poor             | D1       | 70  | 150 |
|          |           | Black Spruce          | Poor             | D2,D3    | 70  | 140 |
|          |           | Softwood/Hardwood     | Good,Medium      | D1,D2    | 60  | 120 |
|          |           | Softwood/Hardwood     | Good,Medium      | D3       | 60  | 100 |
|          |           | Softwood/Hardwood     | Poor             | D1,D2    | 70  | 100 |
|          |           | Softwood/Hardwood     | Poor             | D3       | 70  | 100 |
|          |           | Hardwood/Softwood     | Good,Medium      | D1,D2,D3 | 60  | 120 |
|          |           | Hardwood/Softwood     | Poor             | D1,D2,D3 | 70  | 120 |
|          |           | White Spruce          | Good,Medium      | D1,D2    | 60  | 150 |
|          |           | White Spruce          | Good,Medium      | D3       | 60  | 140 |
|          |           | White Spruce          | Poor             | D1       | 70  | 150 |
|          |           | White Spruce          | Poor             | D2,D3    | 70  | 130 |
|          |           | White Birch           | Good,Medium,Poor | D1,D2,D3 | 60  | 120 |
|          |           | Trembling Aspen       | Good,Medium,Poor | D1,D2,D3 | 60  | 120 |
|          | Managed   | All Plantations       | Good             | N/A      | 40  | 150 |
|          |           | All Plantations       | Medium           | N/A      | 50  | 150 |
|          |           | All Plantations       | Poor             | N/A      | 60  | 110 |
|          |           | Balsam Fir PCT        | Good             | N/A      | 40  | 130 |
|          |           | Balsam Fir PCT        | Medium           | N/A      | 50  | 130 |
|          |           | Balsam Fir PCT        | Poor             | N/A      | 60  | 110 |
|          |           | Black Spruce PCT      | Good             | N/A      | 40  | 150 |
|          |           | Black Spruce PCT      | Medium           | N/A      | 50  | 150 |
|          |           | Black Spruce PCT      | Poor             | N/A      | 60  | 110 |
|          |           | Softwood/Hardwood PCT | Good             | N/A      | 40  | 150 |
|          |           | Softwood/Hardwood PCT | Medium           | N/A      | 50  | 150 |
|          |           | Softwood/Hardwood PCT | Poor             | N/A      | 60  | 110 |

FIGURE 22: OPERABILITY LIMITS FOREST MANAGEMENT DISTRICT 8

#### 3.4.4.8 Silviculture

Silviculture is one of the main forest management tools available to forest managers when analyzing the many different future forests that are generated using wood supply modelling software. The silvicultural action used in the current wood supply analysis included planting of any areas that do not regenerate naturally with either black or white spruce.

Levels used in the Woodstock Model are Shown in Figure 14 below.

Table 21: Levels of Silviculture Input into Woodstock

| ZONE | DISTRICT | Tenure | 2026 Silviculture Levels ha/10yr |                     |     |
|------|----------|--------|----------------------------------|---------------------|-----|
|      |          |        | Black Spruce Plant               | White Spruce _Plant | PCT |
| 3    | 4        | Crown  | 700                              | 0                   | 0   |
|      | 5        | Crown  | 1250                             | 0                   | 0   |
|      | 6        | Crown  | 1000                             | 0                   | 0   |
|      | 8 East   | Crown  | 1850                             | 650                 | 0   |
|      | 8 West   | Crown  | 1850                             | 650                 | 0   |

### 3.5 Inventory Adjustments

The current wood supply model does not incorporate stochastic events that result in tree mortality. Natural disturbances such as wildland fire, blowdown, insects, and disease are considered in addition to timber utilization of both harvested and non-harvested stands. This loss estimate is called inventory adjustment. This adjustment accounts for the difference between the actual harvest volume measured versus the predicted gross merchantable volume (GMV) in relation to sustainable AAC's. The inventory adjustment used for zone 3 was 20% for districts 4, 5, 5 and 8.

#### 3.5.1 Fire

An estimate of productive area loss because of fire was based on an analysis of the historical fire statistics maintained by the department of forestry.

#### 3.5.2 Insects

An aerial mortality survey was completed in areas with historically high insect infestations. This information along with a GIS analysis of areas salvaged enabled the department to determine the area of productive forest lost to insect mortality each year.

#### 3.5.3 Timber Utilization

Information for this adjustment was derived from a series of intensive on-the-ground surveys which measured the amount of wood remaining on cutovers following harvesting. This wood was comprised of solid merchantable wood (logging losses) and wood with inherent cull (butt and heart rot). Surveys were

conducted province wide and, on all tenures, where the information is analyzed by harvesting system and season.

### 3.5.4 Stand Remnants

Following harvesting operations, small fragments of stands often are left for a variety of reasons (operational constraints, low volume stands, terrain conditions). Leaving stand remnants often result in lower volumes achieved than predicted by computer models. Surveys were conducted across the province, and the results were analyzed to determine the productive area attributed to remnants.

## 3.6 Results

The crown managed tenure, commercial and domestic AAC, for Forest Management Zone 3 for the period 2027-2031 is shown in the Table below.

Table 22: Crown Tenure Commercial and Domestic Annual Allowable Cut, Zone 3 2027 - 2031

| Zone 3       | Annual Allowable Cut Volume (m <sup>3</sup> ) |                                    |                   |               |                                    |                   |
|--------------|-----------------------------------------------|------------------------------------|-------------------|---------------|------------------------------------|-------------------|
|              | Core Softwood                                 | Operationally Constrained Softwood | Domestic Softwood | Core Hardwood | Operationally Constrained Hardwood | Domestic Hardwood |
| DISTRICT 4   | 31,500                                        | 12,000                             | 790               | 640           | 270                                | 0                 |
| DISTRICT 5   | 26,000                                        | 9,900                              | 50,500            | 2,000         | 320                                | 3,800             |
| DISTRICT 6   | 32,500                                        | 5,000                              | 0                 | 740           | 30                                 | 0                 |
| DISTRICT 8 E | 40,000                                        | 9,100                              | 7,300             | 2,500         | 460                                | 50                |
| DISTRICT 8 W | 12,400                                        | 4,300                              | 4,300             | 370           | 90                                 | 490               |

## SECTION 4 CARBON ANALYSIS

### 4.1 Carbon in Our Forests

Forests remove carbon from the atmosphere in the form of carbon dioxide (CO<sub>2</sub>). Through photosynthesis, carbon is extracted from CO<sub>2</sub> 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 CO<sub>2</sub> 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 trees die and decay, are naturally disturbed, or their wood is harvested. Post-disturbance landscape carbon dynamics vary with 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 by their smaller leaf area and lack of accumulated biomass. Middle-aged stands excel at carbon sequestration as this stage of succession undergoes rapid growth 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 wood supply models into stand-level carbon estimates, we integrated species-specific allometric biomass expansion factors (Boudewyn et al., 2007) into the model. It is widely accepted in the forest carbon field that carbon comprises half of a tree's dry biomass, and applying this assumption allowed us to track carbon storage over the entire planning horizon. Stands without an assigned merchantable volume (i.e., commercial stands less than or equal to 10 years old or non-commercial forest stands) use area-based coefficients (Boudewyn et al., 2007) instead of the previously described volume-based expansion factors.

#### 4.1.2 Carbon Management Scenarios

The distinction between managed and unmanaged landbase is crucial for explaining carbon dynamics. The managed landbase, which includes the core, operational, and domestic areas, allows for harvesting and silvicultural interventions to actively shape the forest in alignment with the goals and values of the forest management plan. The excluded landbase, water buffers, and non-commercial forest (scrub) defines the unmanaged forest, and this landbase does not differ between forest management scenarios for a given forest management district (FMD). Forest growth within unmanaged areas follows a natural forest succession regime, as unmanaged forest area is neither created nor destroyed in the model, and no

harvesting or silvicultural interventions can be scheduled in these areas. Non-commercial forest stands are assigned an age of 120 years old and are not represented in the age class distribution graphs; however, the carbon stored in these areas is included in the “unmanaged forest” trendline in the aboveground carbon graphs for each district.

To evaluate the impacts of various forest management strategies on carbon storage, four distinct scenarios were assessed using the carbon model. The first scenario (S1) is a management option in which no harvesting or silviculture intervention can occur. This scenario demonstrates the natural range of variation of carbon stocks in the managed forest when forest succession is undisturbed. However, this scenario also introduces the greatest risk to the forest for wildfires and insect outbreaks through fuel loading. The second scenario (S2) is the maximized carbon storage scenario, which demonstrates the highest attainable carbon storage on the landscape within the bounds of all wood supply constraints. Planting levels, harvest deferrals, and all other constraints on harvesting are present, but with an objective to maximize the amount of carbon that exists on the landscape. The optimization model uses harvesting and silviculture to manipulate the age class structure as close as it can to a balanced age class structure, maximizing the carbon storage on the landbase. The third management scenario (S3) is an unconstrained scenario, meaning there are no limitations on harvesting or silviculture for the entire 160-year planning horizon. This scenario demonstrates the absolute maximum carbon storage potential of the landscape, but it is not operationally realistic. The fourth scenario (S4) represents the harvest scenario used to generate harvest schedules that assisted District Managers in developing their five-year commercial operating areas (COA). This final scenario is important for analyzing the effects of the proposed harvesting regime on the district's carbon stocks and how the carbon dynamics compare to the three reference scenarios.

## 4.2 Carbon Analysis – District 4

FMD 4 currently supports 5.25 Megatons (Mt) of carbon in aboveground biomass (i.e., stem wood, bark, branches, and foliage). Of this total, 2.49 Mt is contained in the managed forest (50,029 ha), and 2.76 Mt is stored in the unmanaged forest (124,982 ha). The age class distribution of the managed forest is bimodal, with area concentrated in the younger and older stands (Figure 19). This unbalanced age class structure creates unstable carbon stock levels in S1 that initially increase as the dominant younger stands reach the oldest age classes, then peak and decline as these stands die and begin to regenerate (Figure 19). The maximized carbon scenario (S2) is able to stabilize forest carbon stocks within the upper range of the forest's natural variation through adequate harvesting and subsequent planting action to mitigate the

declining carbon stocks as the youngest stands mature and surpass their lifespan. By allowing harvesting and silvicultural activities to be delayed, the unconstrained scenario (S3) enables the model to strategically respond to the natural reduction in carbon stocks during the mid-planning period. Increased harvesting and intensive planting in later years then accelerate carbon sequestration and support higher carbon stocks toward the end of the planning horizon. With a focus on harvesting, the carbon stocks of S4 immediately decline as the oldest stands are continually harvested first, stabilizing in the lower portion of the natural range of S1 by the end of the planning horizon as the age class structure is beginning to normalize. The unmanaged landbase has a similar age class distribution to the managed landbase but is more evenly distributed across most age classes outside of the two dominant oldest cohorts. As a result, carbon stocks stabilize early in the planning horizon following the turnover of these older stands. The unmanaged age class figure excludes 93,221 ha of scrub, which contributes to carbon storage and results in the unmanaged landbase maintaining a higher proportion of total carbon stocks than the managed landbase for most scenarios.

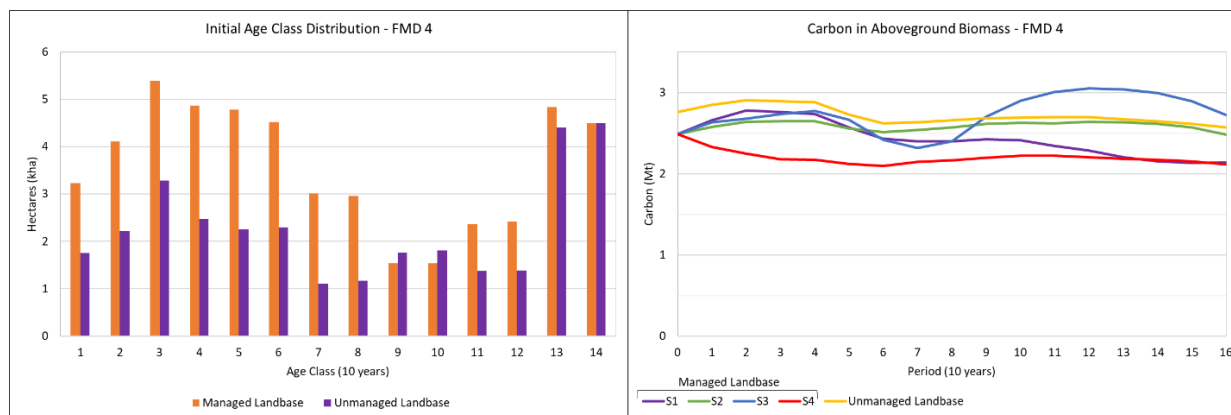


FIGURE 23: AGE CLASS DISTRIBUTION OF FMD 4 AND CARBON IN ABOVEGROUND BIOMASS

#### 4.2.1 Carbon Transferred to Roundwood Products Under Scenario 4 – District 4

Industrial roundwood products (i.e., sawlogs, stud wood, pulpwood, and energy wood) continue to retain carbon in their biochemical structure after stands have been harvested. Sawlogs and stud-wood typically produce long-lived harvested wood products, such as lumber, that can retain carbon for decades. Conversely, pulpwood and energy wood produce products like paper, cardboard, or fuelwood, which quickly release carbon back into the atmosphere, often within just a few years. Figure 20 displays the relative proportion of carbon transferred to each raw material as a result of harvesting under S4, totaling approximately 109 kilotonnes (kt) in each period. The total carbon transferred into roundwood products follows the same even-flow harvest pattern applied in S4; however, the relative proportions of products

vary between periods due to differences in the age distribution of harvested stands. Products requiring lower harvested volumes (energy wood) replace sawlogs over time, as old stands get harvested and the age distribution becomes more even, maximizing harvesting within the management constraints.

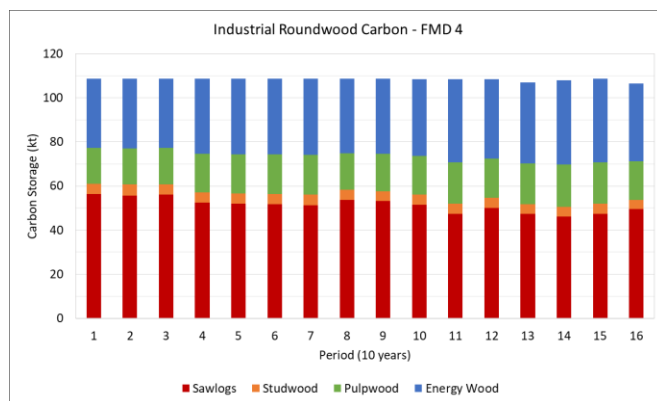


FIGURE 24: CARBON TRANSFERRED TO INDUSTRIAL ROUNDWOOD PRODUCTS / PERIOD FROM SCENARIO 4 FOR FMD 4

### 4.3 Carbon Analysis – District 5

The managed forest (116,342 ha) contains 5.43 Mt, while the unmanaged forest (193,454 ha) stores 4.52 Mt of the total 9.94 Mt of carbon currently stored in FMD 5. The existing age class distribution is highly unbalanced, with very little managed forest in the four oldest age classes. For this reason, the carbon stocks of S1 initially increase as stands grow into the older classes, followed by a mellow decrease that reveals a cyclical pattern as forest succession advances through the planning horizon (Figure 21). The maximized carbon scenario (S2) is able to tame this cyclic pattern in the upper range of natural variation through balanced harvesting and subsequent silvicultural treatment while allowing biomass to remain on the landscape. The unconstrained run (S3) is able to delay harvesting and silvicultural treatments until stands have matured into later age classes. Then, the yields from extensive harvesting and replanting efforts are maximized, mitigating the natural decline in carbon stocks displayed by S1 in the mid to later portion of the planning horizon. Focused on harvesting volume, S4 maintains carbon stock levels in the lower range of the natural variation. By the time classes 9 and 10 are harvested, the dominant younger stands are becoming operable, maintaining harvest volume and carbon stocks at a stable level. The age-class distribution of the unmanaged landbase closely resembles that of the managed landbase, although it is somewhat less concentrated in the younger age classes. As a result, aboveground carbon stocks exhibit a more gradual cyclical pattern over the planning horizon as stands mature and progress through natural successional stages.

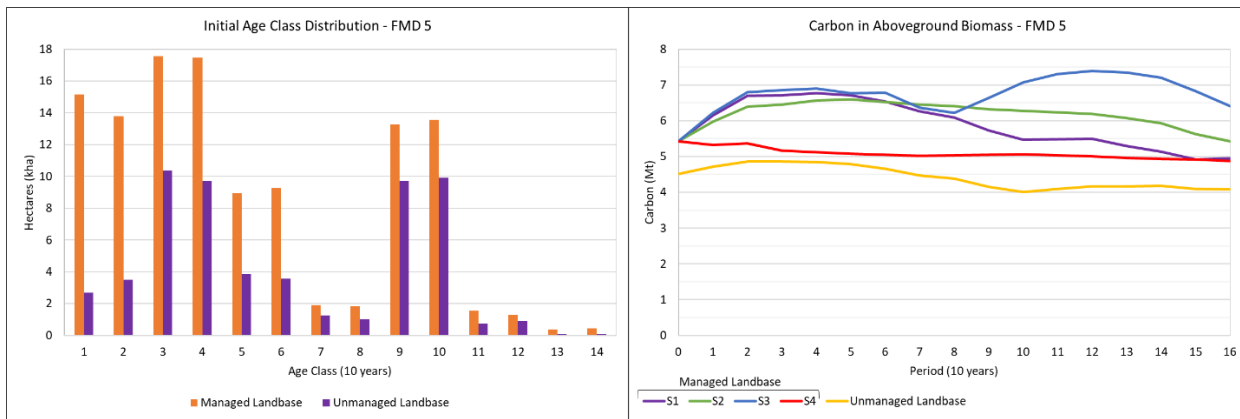


FIGURE 25: AGE CLASS DISTRIBUTION OF FOREST MANAGEMENT DISTRICT (FMD) 5 AND CARBON IN ABOVEGROUND BIOMASS

#### 4.3.1 Carbon Transferred to Roundwood Products Under Scenario 4 – District 5

Industrial roundwood products (i.e., sawlogs, stud wood, pulpwood, and energy wood) continue to retain carbon in their biochemical structure after stands have been harvested. The total carbon transferred into roundwood products generally follows the same even-flow harvest pattern applied in S4, while the relative proportions of products vary between periods due to differences in the age distribution of the stands being harvested (Figure 22). For FMD 5, approximately 245 kt of carbon is stored in industrial roundwood products each period. Initially, the share of carbon in sawlogs declines, while the proportion in energy wood increases, reflecting a shift toward products that are less dependent on larger piece sizes, stabilizing by the mid-planning horizon.

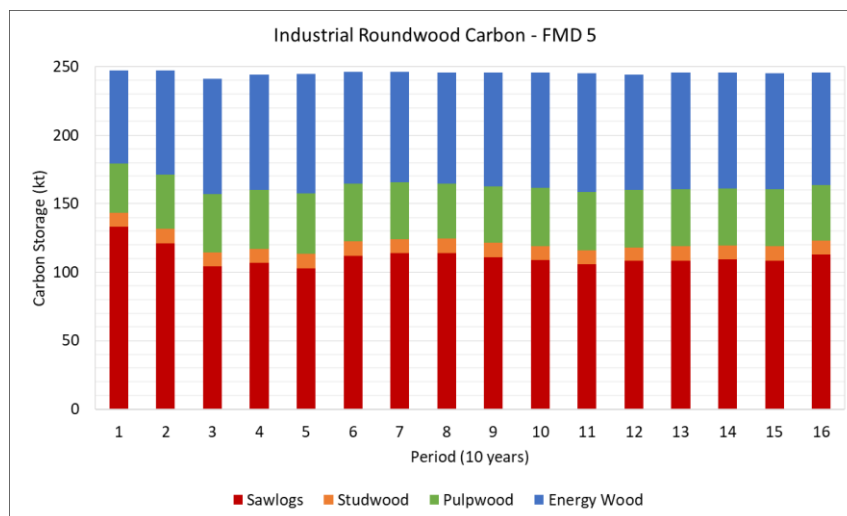


Figure 26: Carbon Transferred to Industrial Roundwood Products per Period from Scenario 4 for FMD 5

## 4.4 Carbon Analysis – District 6

There is a total of 6.94 Mt of carbon stored in aboveground biomass in FMD 6; 4.21 Mt in the 84,555 ha of managed forest and 2.73 Mt in the 96,631 ha of the unmanaged landbase. The existing age class distribution is unbalanced, with area concentrated in the younger, inoperable stands and little area in the middle-aged stands (Figure 23). As a result, the carbon stocks of S1 initially increase as young stands mature, followed by a mellow decrease as forest succession advances through the planning horizon (Figure 23). The carbon-maximization scenario (S2) dampens the natural cyclical pattern, maintaining carbon stocks near the upper end of the natural range. This is achieved through intensive early-horizon planting, which establishes sufficient productive forest area to offset biomass losses as older stands mature, age out of the yield curves, and begin regenerating. The unconstrained scenario (S3) follows a similar strategy by maximizing planting early in the planning horizon to generate strong mid-horizon biomass gains. Harvesting is then delayed until stands approach declining productivity and increasing mortality, resetting stand ages and allowing regenerated stands to mature toward peak carbon-storage ages before the end of the planning horizon. With maximizing even-flow harvest as the primary objective, S4 initially declines as older stands are harvested and subsequently regenerated, reducing standing biomass. Carbon storage then stabilizes near the lower end of the natural range as the age class distribution becomes more balanced over time while maintaining peak harvest levels. The age class distribution of the unmanaged landbase closely resembles that of the managed landbase, although it is somewhat less concentrated in the younger age classes and more evenly distributed across the age classes. Consequently, aboveground carbon stocks exhibit a more gradual cyclical pattern as stands mature and progress through natural successional stages.

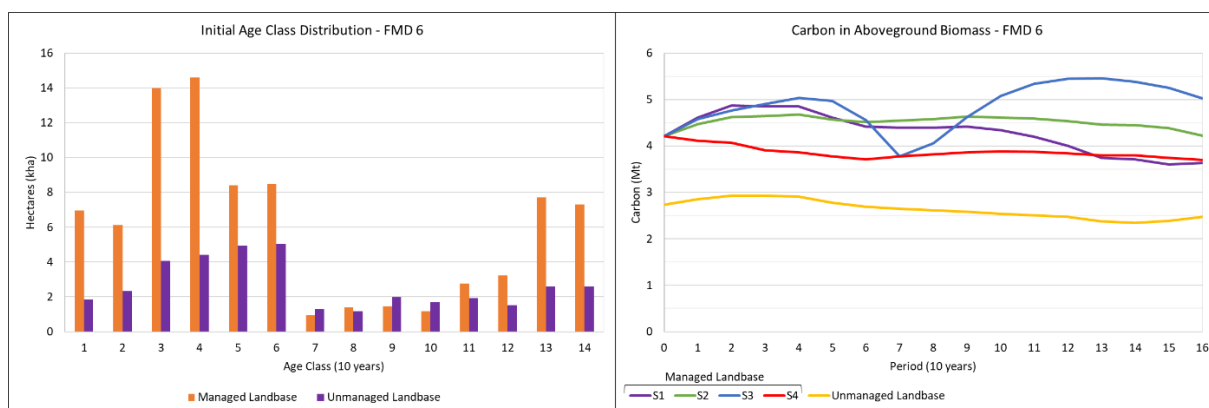


Figure 27: Age Class Distribution of Forest Management District (FMD) 6 and Carbon in Aboveground Biomass

#### 4.4.1 Carbon Transferred to Roundwood Products Under Scenario 4 – District 6

Industrial roundwood products (i.e., sawlogs, stud wood, pulpwood, and energy wood) continue to retain carbon in their biochemical structure after stands have been harvested. The total carbon transferred into roundwood products generally follows the same even-flow harvest pattern applied in S4, with the relative proportions of products varying slightly between periods due to differences in the age distribution of the stands being harvested (Figure 24). For FMD 6, approximately 160 kt of carbon is stored in industrial roundwood products each period.

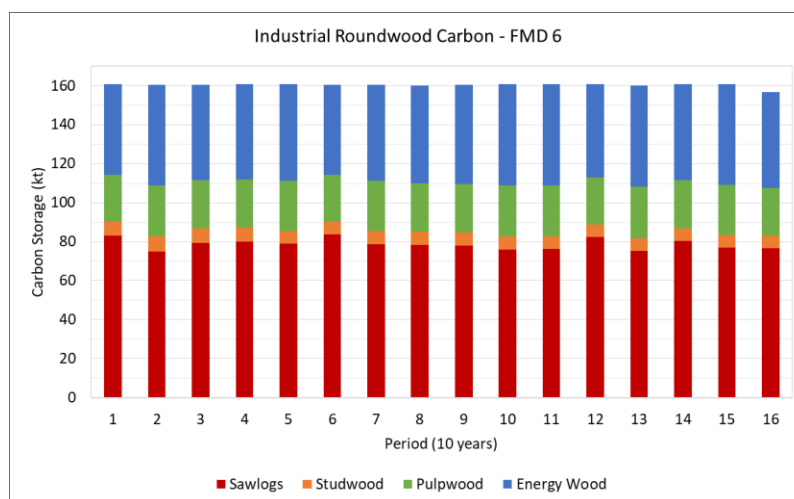


Figure 28: Carbon Transferred to Industrial Roundwood Products per Period from Scenario 4 for FMD 6

#### 4.5 Carbon Analysis – District 8 East

The eastern portion of FMD 8 currently stores 5.57 Mt of carbon in aboveground biomass; 3.60 Mt in the managed forest (77,698 ha) and 1.97 Mt in the unmanaged portion of the landbase (68,885 ha). The existing age class distribution is left-skewed, with area concentrated in the younger, inoperable stands and practically no area in the two oldest age classes (Figure 25). As a result, the carbon stocks of S1 initially increase as young stands mature, followed by a mellow decrease as forest succession advances the planning horizon and the oldest stands transition back to low-yield regenerating stands (Figure 25). The carbon-maximization scenario (S2) maintains carbon stocks near the upper end of the natural range through balancing intensive planting early in the planning horizon and strategic harvesting to reset stands before they enter the declining portion of the yield curves. The unconstrained scenario (S3) capitalizes on early planting with intensive harvesting in the mid-planning horizon to replace naturally declining stands with regenerating stands to outperform the other scenarios in the later portion of the simulation. The left-

skewed age class distribution at the start of the planning horizon helps keep carbon stocks in S4 stable over time. As these stands mature and accumulate biomass, they largely offset the carbon removed through harvesting, resulting in fairly consistent carbon storage while the age-class distribution gradually becomes more balanced. The age-class distribution of the unmanaged landbase closely resembles that of the managed landbase, although it is less concentrated in the younger age classes and more evenly distributed across the landscape. Consequently, aboveground carbon stocks follow a gradual cyclical pattern as stands mature, age, and regenerate through natural forest succession.

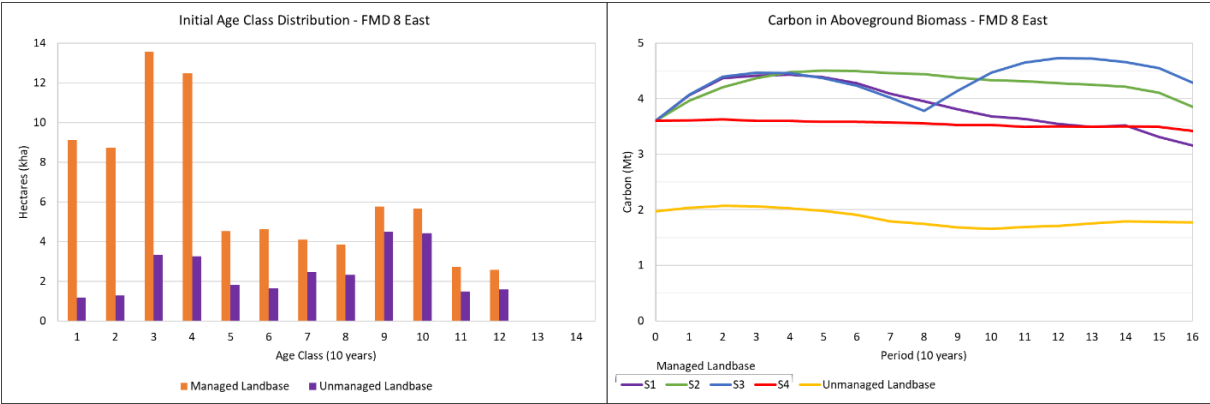


Figure 29: Age Class Distribution of Forest Management District (FMD) 8 East and Carbon in Aboveground Biomass

4.5.1 Carbon Transferred to Roundwood Products Under Scenario 4 – District 8 East

Industrial roundwood products (i.e., sawlogs, stud wood, pulpwood, and energy wood) continue to retain carbon in their biochemical structure after stands have been harvested. The total carbon transferred into roundwood products generally follows the same even-flow harvest pattern applied in S4, with the relative proportions of products varying slightly between periods due to differences in the age distribution of the stands being harvested (Figure 26). For FMD 8 East, approximately 140 kt of carbon is stored in industrial roundwood products each period.

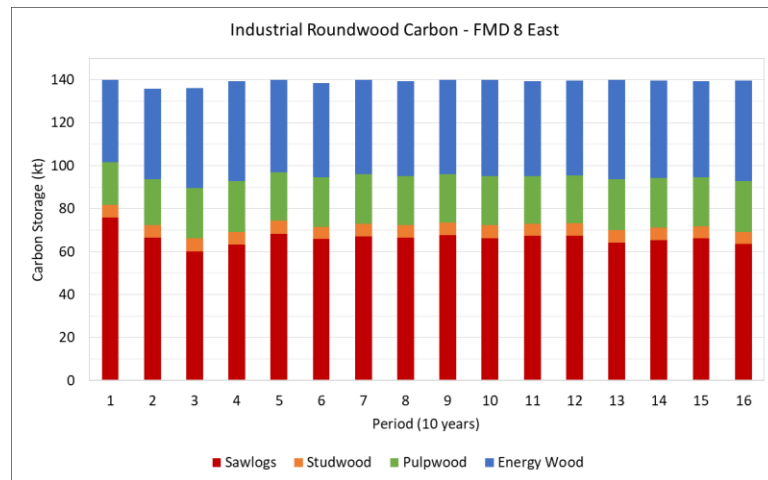


FIGURE 30: CARBON TRANSFERRED TO INDUSTRIAL ROUNDWOOD PRODUCTS PER PERIOD FROM SCENARIO 4 FOR FMD 8 EAST

## 4.6 Carbon Analysis – District 8 West

The western portion of FMD 8 currently stores 2.24 Mt of carbon in aboveground biomass; 1.25 Mt in the managed forest (25,591 ha) and 0.98 Mt in the unmanaged landbase (27,124 ha). Besides age classes 9 and 10 being dominant, the managed landbase slightly favors the younger-aged stands, with very little area in the two oldest age classes (Figure 27). As a result, carbon stocks in S1 initially increase as stands mature and accumulate biomass, then decline as the two dominant age-class cohorts reach the upper limits of their yield curves and begin regenerating. Over time, younger and regenerating stands accumulate biomass and partially offset these losses, producing the gradual cyclical pattern observed throughout the planning horizon (Figure 27). The carbon-maximization scenario (S2) maintains carbon stocks near the upper end of the natural range through balancing intensive planting early in the planning horizon and strategic harvesting to reset stands before they enter the declining portion of the yield curves. The unconstrained scenario (S3) capitalizes on early planting with intensive harvesting in the mid-planning horizon to replace natural declining stands with regenerating stands to outperform the other scenarios in the later portion of the simulation. Continuous harvesting and replanting at the maximum even-flow level in S4 dampens the cyclic effects of the initial age class structure. Carbon stocks initially decline as the two dominant age classes are harvested, then rebound as younger stands mature and add biomass. As the age distribution becomes more balanced over time, the fluctuations lessen and carbon storage stabilizes near the lower end of the natural range (Figure 27). The age-class distribution of the unmanaged landbase closely resembles that of the managed landbase, although it is less concentrated in the younger age classes and more evenly distributed across the landscape. Consequently, aboveground carbon stocks follow a more gradual cyclical pattern as stands mature, age, and regenerate through natural forest succession.

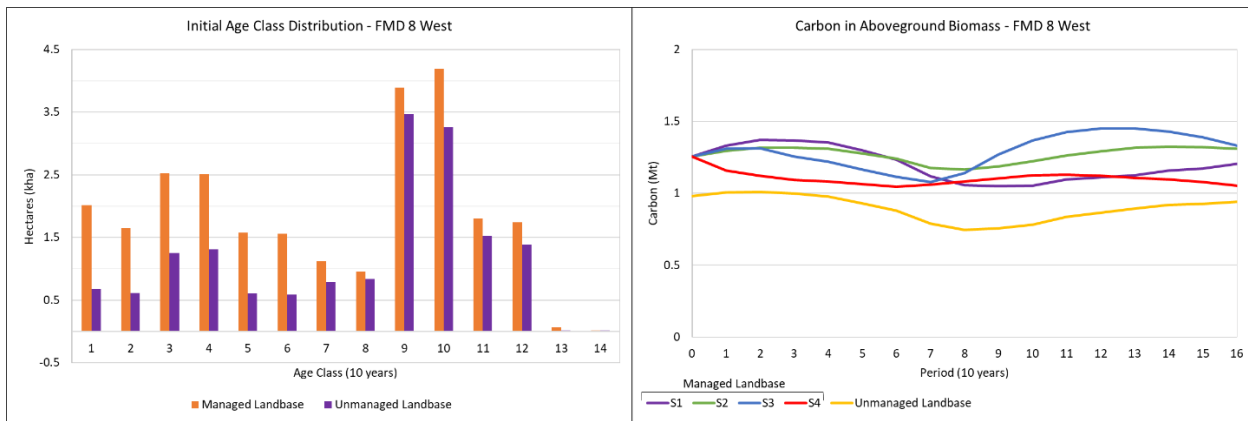


Figure 31: Age Class Distribution of Forest Management District (FMD) 8 West and Carbon in Aboveground Biomass

#### 4.6.1 Carbon Transferred to Roundwood Products Under Scenario 4 – District 8 West

Industrial roundwood products (i.e., sawlogs, stud wood, pulpwood, and energy wood) continue to retain carbon in their biochemical structure after stands have been harvested. The total carbon transferred into roundwood products generally follows the same even-flow harvest pattern applied in S4, with the relative proportions of products varying slightly between periods due to differences in the age distribution of the stands being harvested (Figure 28). For FMD 8 West, approximately 140 kt of carbon is stored in industrial roundwood products each period. The proportion of carbon in sawlogs and energy wood exhibits an inverse relationship throughout the planning horizon, with carbon gradually shifting from sawlogs to energy wood as the average age of harvested stands declines under maximum even-flow harvesting.

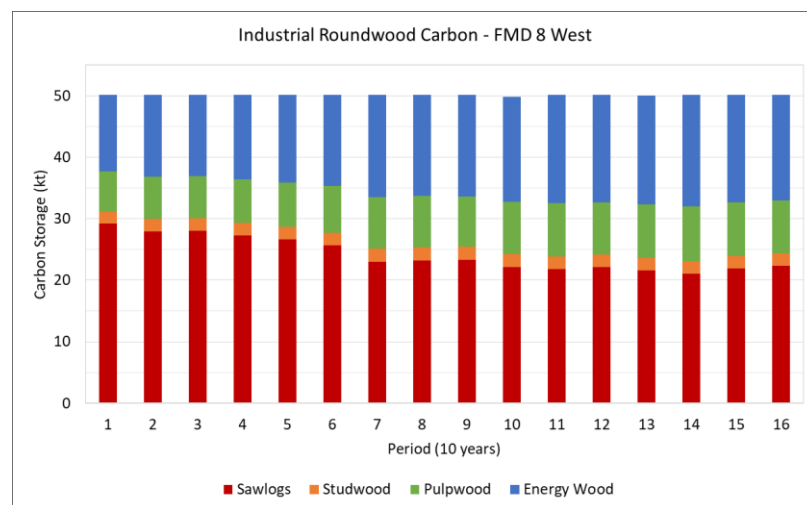


Figure 32: Carbon Transferred to Industrial Roundwood Products per Period from Scenario 4 for FMD 8 West

## 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 that 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 a 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 in the future.

Social sustainability means fairness and equality 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

The forest ecosystems of the zone provide a wide range of values to different individuals and groups, which include:

1. Consumptive values such as timber products, hunting, trapping, sport fishing, and berry picking.
2. Non-Consumptive values such as skiing, snowmobiling, hiking, and bird watching.
3. Intrinsic and intangible values such as a feeling of wilderness and peace which some people describe as spiritual. Although difficult to spatially describe or quantitatively measure, spiritual values are a product or an accumulation of all values.

Other values such as water quality, parks, and protected areas provide the protection of forest ecosystems, which can enhance the above-identified values. Many of the values in the zone are identified by many years of forest management planning and engagement with interested stakeholders.

The following represents a framework for characterizing values in a clear and consistent manner. This approach consists of three components:

### A. Characterization

- Description: Why the value is important, types of activities, intensity, spatial extent, employment, etc.
- Data in support: Statistical references.

### B. Critical Elements

- Forest Features: Elements at risk from harvesting or enhanced by harvesting (viewscales, adjacent to water, mountains, habitat, wilderness ambiance, road access, etc.)

### C. Guiding Principles

A guiding principle can be defined as a fixed or predetermined policy or mode of action. These 'modes of action' would be implemented in the five-year plan in the form of:

1. Policies that should be in place to protect or enhance resource value.
2. Methods for negotiation or inclusion of other interested stakeholders in resolving potential conflicts.
3. Special management provisions/strategies such as riparian buffer zone consideration, temporal operating periods, modified harvesting, or best management practices,
4. Models and/or forecasting strategies to determine economic contribution, biodiversity impact, or community sustainability

In many instances, the Environmental Protection Guidelines (EPG's) developed by the department help form the guiding principles for a value. Quite often the spatial extent or location of all values is not known (e.g., raptor nests). Specific guidelines are still listed to provide a direction or course of action when and if these values are encountered.

## 5.2.1 Biotic Values

### 5.2.1.1 Big Game

Big game species in Planning Zone 3 consist of three species Moose, Caribou, and Black Bear.

#### 5.2.1.1.1 Moose

Characterization:

Moose are not native to the island. A pair was introduced to Gander Bay in 1878, and two pairs were introduced to Howley in 1904 (Northcott, 1980). Today, moose are distributed throughout the island, and the population is estimated to be about 125,000 - 140,000.

Currently, moose are managed on an area/quota system in the province. The island is divided into management areas, and license quotas are set annually for each area. Moose quotas are established for moose management objectives for each area. Generally, if an area has too high a moose population, managers will increase quotas to bring down the population to prevent damage to the habitat. However, if the habitat is in good condition, and the area could support more animals, future quotas may be increased.

Approximately 100,000 residents actively participate in the annual moose license application process. If successful, it provides an opportunity to hunt, to take part in an outdoor fall activity, to be part of an important social event and to provide local food.

Non-resident harvest is conducted through outfitting establishments, employing guides, cooks, maintenance people, pilots, etc. Other businesses benefiting from the non-resident outfitting industry include local stores, accommodations and restaurants, outdoor stores, aviation companies, etc.

The moose is also important for non-consumptive activities. Intrinsic value is added to hiking, cycling, camping, paddling, sightseeing, etc., when there is a chance to view megafauna such as moose. The tourism industry relies on this intrinsic value to promote many of the activities offered.

#### Critical Elements:

Moose select different habitats at different times of the year and therefore require a mixed forest landscape year-round: a mixture of closed, mature stands for cover, shelter and winter moose yards; early-seral stages (due to disturbances such as insects, fires and logging) with a high amount of young regenerating areas for browsing; and aquatic foraging areas in the summer.

Forest Harvesting - recently harvested large scale areas can be low quality moose habitat as forage and cover are removed. 5+ year old cutovers tend to have enough regeneration to support a slow return of moose to the area. Regenerating cutovers provide excellent foraging opportunity until trees become too tall for moose to reach.

Forest roads – Access roads provide hunters access into areas previously free from vehicle traffic. Removal of access, in areas of new forest regeneration, may allow moose densities to increase beyond sustainable levels.

Forest harvesting is not expected to have a negative impact on moose populations in this zone because moose prefer the early seral stages of a forest and generally do well in areas after harvesting.

#### Guiding Principals

Proposed forestry activity is reviewed by the staff by the Wildlife Division, and recommendations are incorporated into this five-year plan.

#### 5.2.1.1.2 Caribou

##### Characterization:

Caribou in Canada occur in two primary ecotypes: Barren-ground caribou and Woodland caribou, often referred to as boreal caribou. The Woodland ecotype inhabits mosaics of barren, wetlands, and mature forests. The herds on the island of Newfoundland belong to the Woodland ecotype. Caribou are cyclic by nature mainly due to being density-dependent; meaning restricted by food and/or space, as well as regulated by predators such as wolves and, in recent periods, coyotes. Hunting levels are managed.

Caribou is the only native ungulate species on the island (Northcott, 1980). Numbers are anecdotal at best for the 1800's (ranged from 40,000 to 200,000). Prior to the railway's completion in 1897, there was a healthy population on the island. By 1925 hunting was closed as the island population was down to a few thousand caribou and by 1930 the population had declined to about 2,000 animals (Murphy and Minty 1993).

From the 1960's through the 1990's the caribou population recovered, peaking at over 90,000 in the 1990's. In late 1990's caribou started another downward trend and in a 2014 assessment the population was just over 32,000 animals. The 2019 population estimates were 30,600 animals and the latest available data from 2021 was 27,115.

In the past few years, populations have declined, with this Forest Management Planning Zone being no exception. Caribo is currently open to hunting in Zone 3.

##### Critical Elements:

Caribou populations have been and continue to be studied. Information has been developed to restrict forest harvesting around calving zones during the calving season. It has also been hypothesized that forest road construction may have negative impact resulting from improved access into remote areas, which increases the probability of roadkill and poaching.

Caribou display a highly mobile nature, and some herds occupy large home ranges. Caribou shows a high selection habitat for bogs and mature coniferous forests, as well as shrubs and water bodies. These habitats provide refuge from predation and support an abundance of forage.

Caribou avoid disturbed areas large cutovers, linear features, and fragmentation. Any habitat destruction will have direct impacts such as increased mortality. Reduced recruitment rates are likely to be with habitat loss and with any improved access for humans as well as predators.

#### Guiding Principles:

Caribou populations are monitored and assessed on a regular basis via:

- o Annual fall classification surveys: provide regular updates to sex ratios and recruitment within each herd. This work feeds into herd level assessments and quota evaluation/development.
- o Collar deployment: analysis of caribou movements, mortality rates and range occupation

This supports the development and assessment of Caribou Management Guidelines for forest management planning. New iterations of these guidelines may incorporate maximum targets for disturbance and linear features (e.g., forest roads) as well as no net losses within certain caribou core ranges. The guiding principles for forestry operations and road construction will apply to all crown operations within the province. Wildlife Division will provide specific caribou herd guidance and recommendations.

#### 5.2.1.1.3 Black Bear

##### Characterization:

The black bear is native to the island and is found in forested areas. Black bears are solitary creatures and do not truly hibernate but enter a state of lethargic sleep. A den is chosen in mid fall under tree stumps or logs which are lined with grass, twigs and leaves. If reproducing females gained enough body fat, they will give birth between January and February before emerging from the den with the cub(s) in April or May. Currently, the number of black bears occurring on the island has been estimated at approximately 6,000 - 10,000 animals.

The province is divided into Black Bear Management Areas (BMA), which correspond to MMAs (except for sub-areas). Currently, only one license (with a bag limit at two black bears) is required by hunters on the Island to hunt for black bears in both the spring and fall.

#### Critical Elements:

Heavily wooded areas with dense bush intercepted with smaller clearings or early successional seral stages represent suitable habitat for black bears.

#### Guiding Principles:

A 50-metre undisturbed buffer must be maintained around known bear den sites (winter) or those encountered during harvesting.

#### 5.2.1.2 Furbearers

##### Characterization:

There are a variety of furbearers within the province: lynx, red fox, beaver, otter, muskrat, short-tailed weasel, red squirrel, mink, coyote, wolf (Labrador) and Newfoundland marten (currently listed as a Species at Risk). Of these, mink and red squirrel are not native to the Island and coyotes are considered recent colonizers as they expanded their range naturally.

Furbearer populations fluctuate from year to year and are influenced by factors such as predator/prey relationships, food supply, and disease. Trapping pressure, driven due to fur market prices, can also influence population growth or decline.

Trapping furbearers for their fur, meat and other natural products has a long tradition in this Province. Today's trapping is a choice of lifestyle, most times deeply rooted in the family and local culture, providing food, clothing and money as well as an enduring connection and experience with nature. Approx. 2,500 people in the province trap and snare furbearers.

Management of furbearer species within the province is highly regulated and the responsibility of the Wildlife Division. There are 13 furbearer management zones throughout Newfoundland and Labrador. Within these zones, harvest activities for each species occur during optimum periods for fur quality, which is generally during the fall and winter period. However, furbearer seasons may vary for each different species.

#### Critical Elements:

Embedded in conservation of furbearers is the conservation of biodiversity and the ecological processes that support that biodiversity. Furbearers depend on other species, lynx on snowshoe hares, marten on mice and beaver on deciduous trees. Each species belongs to a diverse community that depends on specific habitat conditions. Habitats change from one forest's successional stage to another and are therefore inextricably linked to forest management. (Fur Institute of Canada, 2019).

Species respond differently to logging operations or Silviculture treatments (i.e. thinning, prescribed burns). Hare and grouse increase with logging, which is advantageous to lynx, coyote and fox. The wolf depends on caribou and moose, and beaver. Snags, coarse woody debris, and sufficient understory provide sites for shelter, denning, nesting, traveling, etc. Maintaining sufficient undisturbed riparian buffer zones along aquatic areas such as wetlands and waterbodies ensures water quality maintenance as well as shelter from upland disturbances

A mix of various forest conditions and successional stages that provide diversity of habitats supports a diversity of prey and thus a diversity of furbearers.

#### Guiding Principles:

The Wildlife Division manages the trapping of furbearers. The Hunting and Trapping Guide published annually on the provincial government website provides information on furbearer trapping / snaring and relevant information on furbearer zones.

#### 5.2.1.3 Species of Interest

##### 5.2.1.3.1 Endangered Species

#### Characterization:

At present there are 31 species listed under the Endangered Species Act Regulations as endangered, 20 listed as threatened and 24 listed as vulnerable. Several of the listed endangered species of plants and mammals do occur in the zone.

#### Critical Elements:

Quarrying, road construction, logging, all-terrain vehicle traffic, and wildland fire also pose a potential threat.

#### Guiding Principles:

Department personnel training and public awareness on the locations and importance of endangered species. Identify and update all applicable habitat sites on a GIS database, work with the Wildlife Division to develop mitigative measures.

##### 5.2.1.3.1 American Martin

#### Characterization

In 1986, the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) assessed the Newfoundland population of the American marten and the species was listed as threatened. Revisions in 1996 and 2000 resulted in an uplisting to “endangered” due to further declines. *Habitat loss, trapping and incidental snaring are possible reasons for the marten population decline.* Through the work of the Marten Recovery Team, the status of marten was upgraded from “endangered” to “threatened” in 2007 because new population estimates were stable and distribution of marten was increasing.

The American marten (island population) is currently (2026) listed as “vulnerable” under the provincial *Endangered Species Regulations*.

To identify factors affecting marten survival, stakeholders from the Canadian Forest Service, Wildlife Division, Corner Brook Pulp and Paper and the Forestry Branch became members of the Newfoundland Marten Recovery Team. The primary function of the Recovery Team was to prepare and periodically revise the recovery plan for American marten in Newfoundland and to provide advice on species recovery. The initiation of the live-trapping program revealed that Main River, Little Grand Lake and Red-Indian Lake are high-density marten areas on the island. Based on this information, it is important that marten habitat be protected in these areas. Furthermore, it is important that some remnant stands of old growth (80+) forests remain on harvested areas throughout the province and provision made to have connectivity (i.e., unbroken corridors of forest).

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#### Critical Elements:

- Older studies of habitat associations of American marten in Newfoundland have found that they are dependent on late succession, or overmature (>80-years-old) forests due to a depauperate prey base which restricts marten to older forests where prey are accessible. More recent research suggests that marten will use a wide variety of habitat types, including immature regenerating forests, pre-commercially thinned forests, areas disturbed by forest insects, and areas of mature and overmature forests sufficient habitat to support a viable population of marten;
- Overall experts agreed that forest management promotes marten populations when some remnant stands of over mature/ old-growth (80+) forests remain unharvested across the island and a provision made to have connectivity between these over mature or old growth stand with the habitats that are listed above in the first bullet (this does not include recently harvested areas).
- Under Brian Hearn's work with the Canadian Forest Service, previous proposed harvest schedules within various forest management districts have been analyzed and indicate suitable habitat remained after harvest.

#### Guiding Principals

These guiding principles are put in place to further recovery of the Newfoundland Marten and allow for forest harvesting.

- **Sustainably manage and conserve core marten areas:**

In the early 1990's-2000's there were three high-density marten areas on the island: Main River (southern Northern Peninsula), Little Grand Lake- Red-Indian Lake (Western) and Terra Nova (Eastern). Marten continues to expand their range from these core areas. Based on this information, it is important that marten habitat be managed with a focus on the sustainable use and conservation of these core areas and the management of forests to promote and continue range expansions beyond the three core areas.

- **Ensure habitat connectivity:**

Forest planning ensures sufficient connectivity between habitat patches to allow continued dispersal and expansion of the species back to its historical range.

- **Protect denning female and kits:**

Activities previously identified by the Newfoundland Marten Recovery Team, as having the potential to disrupt female marten and her kits during the critical denning period, where possible should be limited during the period April 1st to June 30th within the areas identified as marten critical habitat in the 2010 Provincial Recovery Plan. This includes any activity that results in the removal of trees, significant noise, or compression or disturbance to brush or soil. Wildlife Division must be consulted on activities proposed in critical habitat during this period.

The guiding principles for Habitat requirements during forestry operations will apply to all crown operations within the province.

#### 5.2.1.3.2 Rare Plants

##### Characterization

The distribution of specific species as well as plant communities depends on regional and landscape-level factors, such as climate, geology, altitude and terrain as well as more local factors, such as the depth, moisture regime and fertility of the soil, microclimate and other biota, such as presence of herbivores, pathogens or pollinators. Information on the distribution of plant species in Newfoundland and Labrador is obtained from various surveys initiated by government, research institutions, individual naturalists, and local organizations, as well as those by consulting firms required through Environmental Assessment processes.

Four of the endangered plant species are not found anywhere in the world outside of the Gulf of St. Lawrence Region, and three of them, the Fernald's Braya, Long's Braya and Barrens willow, are only found on the Island of Newfoundland. There are many species of plants, lichen and fungi throughout the province that are not rare or endangered but still have an important social or economic value. Many of these species also play important roles in the functioning of the province's ecosystems. The vast majority of the rare plant species throughout Newfoundland are inhabitants of open habitats, such as river gravels, salt

marshes, wetlands, aquatic habitats, alpine areas and coastal barrens, which are not targeted by commercial forest operations and in some cases receive special protection.

#### Critical Elements:

A small subset of the plant and lichen species of conservation concern, such as the Endangered Graceful Felt Lichen, depends on forests, and some of them are specialists requiring late-successional forests.

Without proper protection measures, negative effects can occur from:

1. quarrying and road construction
2. logging and extraction using heavy equipment
3. mechanical site preparation
4. all-terrain vehicle traffic
5. prescribed burning
6. stand conversion to different tree species and/or earlier seral stages

#### Guiding Principles:

Work with the Wildlife Division to educate forestry personnel and develop mitigative measures in areas where rare plants occur and identify and update all rare plant sites on GIS forestry database. Encourage domestic harvesting in the winter. The guiding principles for protection during forestry operations will apply to all crown operations within the province.

#### 5.2.1.3.3 Waterfowl

##### Characterization:

Maintaining waterfowl populations depends on effective conservation efforts throughout North America. Newfoundland and Labrador most productive waterfowl breeding and staging areas are either owned by or are under management control of major corporations, private or communities. To help manage waterfowl areas, stewardship agreements are signed at either the municipal, corporate, or private levels.

##### Critical Elements:

Habitat maintenance and breeding disturbance of waterfowl during the brood rearing, breeding, and staging.

## Guiding Principles:

Habitat, a 30-metre riparian buffer is standard for forest operations, a 50-metre riparian buffer will be established around designated sensitive waterfowl areas. No forestry activities are recommended during the brood rearing, breeding, and staging periods.

The guiding principles for Habitat and Breeding during forestry operations will apply to all crown operations within the province.

### 5.2.1.3.4 Other Species

There are other species currently listed as endangered. Any recommendations on modified forestry activities, if any, for those species will be developed with input from all members and implemented accordingly. Following SFM adaptive management processes.

### 5.2.1.4 Water Resources

#### Characterization:

The protection of water resources is an important topic both nationally and provincially. While much of the current focus is directed towards drinking water, it is also recognized that equal importance must be attached to water which has other beneficial uses. Human impacts both locally and globally have the potential to impair water for future uses. Recreational uses of water within this zone are used for activities such as fishing and boating and as a water supply source for numerous cabin owners. Human activity on the land has the potential to alter water quality and water quantity. Commercial forest harvesting is one of the predominant activities occurring throughout the zone. Mining operations also occur within the zone in the form of mineral exploration, mining operations and small quarrying operations associated with road construction.

#### Critical Elements:

Forest management activities such as road construction and maintenance, timber harvesting, and Silviculture have the potential to alter the quality of water draining from watersheds. Impacts could include stream hydrology, sediment loadings, and stream characteristics. Careless storage and handling of fuels by industrial and recreational users, stream diversions, and agricultural operations are other examples.

## Guiding Principles:

There are numerous protective measures listed in the Department of Forestry's Environmental Protection Guidelines under the broad categories of road construction, stream crossings, road abandonment, fuel oil handling and storage, support services and structures, harvesting, silviculture, and protected water supply areas.

## 5.2.2 Human Values

### 5.2.2.1 Timber Resource

#### Characterization:

Commercial logging contractors are allocated most of the annual allowable cut level in the zone. Commercial harvesting and sawmilling activity provide many jobs in harvesting, sawmilling, trucking, pulp and paper manufacturing and related spinoff industries for residents. Commercial uses have arisen for timber, which includes lumber, pulp and paper products, and value-added products.

Domestic harvesting provides fuelwood to heat many homes and sawlog material for residential house construction in the zone. Domestic harvesting is conducted in specific domestic cutting areas via a crown domestic cutting permit that is required and issued within each forest management district. Unless otherwise specified; domestic cutting is limited to these designated cutting areas. A Domestic Permit specifies the volume and species that can be harvested, utilization standards, and other relevant conditions. While some domestic cutting areas are designated for hardwood only, most areas will allow the harvest of all hardwood and softwood species.

Silviculture treatments are important to the forest resource of the zone as it ensures that a vigorous and healthy forest is maintained. Forest renewal activities facilitate renewal of productive landbase by manual planting areas that are not sufficiently restocked. Forest improvement activities help improve and enhance the growing stock which can reduce harvest cost, enhance forest product options and increase sustainable timber supply. There will be significant investment in silviculture in the zone each year creating seasonal employment.

Timely access to timber is critical to planning any forestry operations. Primary, secondary and tertiary roads form an integral part of operating areas for commercial harvesting activity. Upon completion, these

roads are often used for silviculture and recreational purposes. A significant amount of money will be spent to construct forest access roads each year in the zone.

Protection of the forest from various disturbances is a major characteristic of resource management, which includes integrated pest management and forest fire prevention/suppression techniques. Other resource values are protected through modification of activities and enforcement.

#### Critical Elements:

The objective is to ensure the AAC is calculated using the latest information while considering other resource values and conducting environmentally sound operations. This is achieved by:

- Maintenance or enhancement of productive land base.
- Planting of non-regenerating areas.
- Minimizing loss of land base to other users.
- Minimize losses to fire, insect and disease.
- Timely access road construction.
- Enhancement of younger stand age classes through thinning to correct age class imbalance.

#### Guiding Principles:

- Enforcement of the Forestry act, regulations, guidelines and policies.
- Minimize loss of productive land base through spatial and temporal compromises and continuous dialogue with other resource users.
- Education (staff, public, operators).
- Aggressively invest in silviculture activities, access road construction, and protection activities.
- Implement best management practices. The EPGs outline courses of action and mitigative measures for forest activities. These most recent EPGs are outlined in their entirety on the Provincial Government Website:

#### [Publications - Forestry - Forestry, Agriculture and Lands](#)

- Some highlighted subject areas are listed below.
  - Garbage disposal

- Fuel storage
- Mineral soil exposure
- Buffer requirements
- Road and bridge construction
- Silviculture and harvesting activities

#### 5.2.2.2 Agriculture

##### Characterization:

The agricultural industry provides both direct and indirect employment to residents of the province.

##### Critical Elements:

Surveys indicate that approximately five percent of the soil in the province is suitable for agriculture. It is not possible to identify and plan all sites for future agriculture use and often there is conflict with other land uses, particularly forestry because these sites are of high growing capability. Although a suitable land base is the first critical element necessary for a successful agriculture operation, markets and the interest of individuals are also prime factors in the development and location of future farms. In the spirit of managing the ecosystem for multiple benefits, provisions have been given for the agriculture industry to expand.

Both the Forestry and Agrifoods departments have identified Agricultural Areas of Interest (AOI's) across the province, representing approximately 155,600 hectares. The area in AOI's has been removed from wood supply calculations and is available for agricultural development. In addition, Agricultural Development is still considered for areas falling outside established AOI's.

##### Guiding Principles:

Landbase falling inside AOI's are available for agricultural production. However, the Land base falling outside AOI's and designated for forest management that is determined high potential for agriculture will also be considered. Consequently, the Forestry Branch will collaborate with the Agrifoods Branch when such opportunities exist.

- The following will provide guidance for the development of agriculture within the zone:

- Home gardening leases should be confined to areas already developed for this activity.
- New agriculture leases are approved by the Agrifoods Branch of the Department of Forestry, Agriculture & Lands.
- The Forestry Act has been amended to allow clearing of land to occur without a commercial cutting permit if the applicant is utilizing the fibre for their own private use.
- Where possible, existing commercial forest operators should be encouraged to work with farmers to clear new land for development.

### 5.2.2.3 Mining, Mineral Exploration, and Quarrying

#### Characterization:

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.

#### Guiding Principles:

- Forest Ecosystem
  - Regulations and permitting conditions require that all mine sites, quarry sites, and mineral exploration sites be rehabilitated. While each activity is regulated separately, rehabilitation requirements for each include the requirement that the organic overburden (e.g., topsoil, ground vegetation) be stockpiled and stored in a manner so that it can be used to rehabilitate the site. Rehabilitation requirements can be further specified in special terms and conditions and could include, if warranted, the requirement that the site be left in a condition conducive to forest regrowth.
- Utilization of Timber Resource
  - As part of exploration and development activities, individuals must attempt to extract timber harvested. If timber cannot be feasibly extracted using conventional means, then timber shall be piled so that it may be extracted during winter months by snowmobiles.
  - Mineral Exploration companies are permitted to use some harvested timber within access routes for the purposes of corduroy or brush-matting to prevent rutting and minimize ground disturbance on sensitive sites.
- 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 Branch. 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](mailto: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.

#### 5.2.2.4 Historic Resources

##### Characterization:

The provincial archeology office (PAO) is the agency responsible for the management and protection of archaeological sites and artifacts in Newfoundland and Labrador. This program is carried out under the Historic Resources Act which ensures that developments with potential to have adverse impacts on historic resources are investigated as and monitored by a qualified archaeologist through archaeological impact assessments.

Archaeological sites are non-renewable resources and play a vital role in understanding our heritage. Most often, archaeological sites are small, so it is important to protect these sites and professionally record as much information as possible to fully understand their history. To do this properly, the site must not be disturbed.

##### Critical Elements:

Activities which disturb soil layers and/or provide unintended public access to an archaeological site can have a negative impact on that historic resource. Without applying best management practices, forestry activities such as construction of access roads and bridges, harvesting, mechanical site preparation and regeneration have the potential to destroy historic resources.

While forestry activities can have adverse impacts on historic resources, beneficial effects can be realized. Where impact assessments are carried out and new sites are found, it adds to our understanding of Newfoundland and Labrador's heritage. When archaeological sites are discovered through impact assessments, these resources are protected from damage or destruction and preserved.

##### Guiding Principles:

Any project involving land use has the potential to adversely impact historic resources. Therefore, it is important for the provincial archaeology office is involved in the planning stage to ensure effective mitigative measures are developed early in the process to protect historic resources. Buffer Zones will be implemented to protect known archaeological sites and potential unknown sites. If deemed necessary, archaeological assessments may be required to fully assess the site. In addition, buffer zones are required along all rivers and ponds, as well as along the coastline, where there is potential for archaeological

resources to be found. Occasionally there are accidental discoveries made of historical resources. If this does happen, activities should cease in this area and contact be made immediately with the provincial archaeologists.

#### 5.2.2.5 Newfoundland T'Railway

##### Characterization:

The T'Railway is a linear park approximately 850 km in length, where a large section is located within the zone. It is comprised of the former Canadian National Railway right of way, which may vary, however is generally 15 meters wide. It provides an all-season, multi-use recreation corridor and is developed and managed by the Parks and Natural Areas Division in conjunction with the T'Railway Council. The *Provincial Parks Act* provides the legislative framework for the administration and management of the T'Railway and is protected for the present and future enjoyment of the public. The T'Railway constitutes the province's contribution to the Trans Canada Trail System and is used primarily by snowmobile and all-terrain vehicles. Industrial or traditional uses such as commercial and domestic harvesting, quarry and mining access, and cabin access are also granted with a special permit.

##### Critical Element:

- Protection of the historical landscape integrity of the T'Railway corridor.
- Preservation of the scenic quality along the corridor.
- Control of land usage adjacent to the T'Railway.

##### Guiding Principles:

- Co-ordination of activities with various other agencies responsible for land management outside the T'Railway corridor to ensure that the integrity of the park is maintained
- Build partnerships with other stakeholders and user groups such as communities, industry and recreational organizations for the long-term maintenance and development of the T'Railway
- Establishment of a 100-meter buffer along the right-of-way corridor to preserve the natural value of the T'Railway. Also, consider viewscales in forestry management plans.
- Where access is required, any landings or turnaround areas shall be 100 meters or more along the resource roads from the T'Railway.

- Where feasible and possible, Forestry Activity utilizing the T'Railway will avoid peak snowmobile and ATV seasons.

#### 5.2.2.6 Parks and Protected Areas

##### Characterization:

The mission statement of the provincial Natural Areas Program is to protect, in an unimpaired condition, large wilderness areas, representative examples of all the province's ecoregions including their natural processes and features, and rare natural phenomena, to preserve the diversity and distinctiveness of the province's rich natural heritage and to support an ecologically sustainable future for the benefit of present and future generations.

There are several different types of conservation areas in the province contributing to the provincial system of protected areas, as recognized by the International Union for the Conservation of Nature. Wilderness Reserves and Ecological Reserves are established via the *Wilderness and Ecological Reserves Act*. Wilderness Reserves are generally large (>1000 km<sup>2</sup>) and are designed to protect complete ecological systems. Ecological Reserves may be established to protect representative samples of each of the province's natural regions (ecoregions) with a mid-sized reserve (50-1000 km<sup>2</sup>), or to protect exceptional natural features, occurring in an area <10 km<sup>2</sup>, such as rare species or areas of unusual biological richness. Provincial Parks, established under the *Provincial Parks Act*, do play a conservation role, but are primarily established as sites for outdoor recreation and nature-based education. Wildlife Reserves may be established under the *Wildlife Act* for the protection of specific species or habitats. Public or Crown Reserves may be established for conservation reasons under the *Lands Act*. National Parks such as Terra Nova, Gros Morne, and Tongaat Mountains are established under the federal *National Parks Act*. The benefits of protected areas are to preserve biodiversity, provide areas for scientific research, opportunities for environmental education, provide standards against which the effects of development can be measured, and provide natural venues for enjoyment of nature.

##### Critical Elements:

- Preservation of biodiversity.
- Maintenance of protected area integrity.
- Maintain natural processes and features.

- Can be utilized as “control blocks” measured against similar areas where forest management activities have occurred.

#### Guiding Principles:

- The type of activities encouraged or permitted within various protected areas in the province depends entirely on the type of protected area and the rationality for its establishment
- Generally, all non-consumptive activities are permitted; educational activities and scientific research within protected areas generally require a permit and are encouraged
- In most protected areas, new development is prohibited such as mining activity, hydroelectric projects, forestry activity, agriculture activity, roads/trails, cabins and new structures.
- A 500 m no roads buffer is to be maintained around all existing and proposed protected areas to reduce access and minimize damage from motorized vehicles
- Where forestry operations are scheduled within one kilometer of provisional and ecological reserves, wilderness reserves or provincial parks, modified operations may be necessary, and any amendments to the forest plan may be required.

#### 5.2.2.7 Outfitting

##### Characterization:

Since the early 1900's, the outfitting industry has been an integral component of the tourism industry in Central Newfoundland. This region has been a popular hunting and fishing destination because of the pristine environment and abundance of fish and wildlife species. There are outfitters operating within the boundaries of this forest management zone, which provides seasonal employment for many local individuals.

A significant number of traditional hunting and fishing facilities have diversified into the non-consumptive areas of the tourism industry. Such activities include snowmobiling, dog sledding, kayaking, canoeing, nature viewing, hiking, and wildlife photography. The ability to diversify has positively impacted on the viability of outfitting operations and as a result, increasing numbers of operators are considering these opportunities. Pristine wilderness settings are necessary for many of these types of diversification.

##### Critical Elements:

Some outfitting camps are considered remote, and construction of forest access roads close to a camp could have negative impacts on this remote appeal. Increasing accessibility through increased access roads has the potential for increased hunting and fishing pressures within each area. Increased pressure on the wildlife resource within a given area could potentially lead to decreased success rates of outfitter guests. With improved road access, there is also potential for increased cottage development, which can also impact both remoteness and wildlife availability.

Without proper application of best management practices, forest harvesting can negatively impact wildlife travel corridors, bear denning areas, and caribou feeding and calving areas. Removal of large areas of forest can simulate the same effect of reducing wildlife habitat, particularly in winter staging areas.

While clients of hunting and fishing outfitters are primarily interested in the actual hunting or fishing experiences, they also show great respect and admiration for pristine conditions and a healthy-looking landscape. The landscape view experienced by clients plays a large role in leaving a lasting impression of the province. The viewscape experience may also have a direct impact on repeat client bookings and recommending the destination to others. Viewscapes become even more important as outfitters begin diversification into non-consumptive tourism activities.

Prior to implementation of an Environmental Management System (EMS) on forestry operations, some poor past practices have resulted in increased levels of garbage (skidder tires, abandoned buses, used oil containers, etc.). This can be frustrating for outfitters who concentrate on not leaving permanent marks on the landscape.

#### Guiding Principles:

Through consultations with outfitters located within the zone, it may be deemed necessary to develop a managed forest area around the established main outfitting lodge.

- Where possible, and with consideration to minimizing any additional construction, new access roads may be kept away from the existing main outfitting camp.
- Consideration should be given to decommissioning roads and bridges (where possible) after harvesting is completed. This will eliminate damage to the hunting area by reducing the possibility of increased hunting pressure. When roads are in use actively for harvesting purposes, access to hunters could be restricted or limited.

- Where possible, conduct harvest activity in the winter and construct winter roads that are less passable in summer/fall and will help to reduce vehicular traffic.
- In consultation with the outfitter, forest harvesting can be restricted around hunting and fishing camps during their season of operation.
- In keeping with sound SFM ecosystem values, including consultation with the outfitter stakeholders, efforts should be made to ensure that the integrity of the view from the outfitter main lodge is considered when conducting forest operations.
- Forest operations must ensure all garbage is removed from the harvest area.

#### 5.2.2.8 Recreation / Tourism

##### Characterization:

Non-timber recreational values such as hiking, skiing, canoeing/kayaking, ATV/UTV and snowmobiling constitute an important role within this Zone. The Zone has outstanding scenery, varying topography and opportunities for viewing wildlife and flora in a natural setting.

Regardless of if you are canoeing/kayaking on the many rivers, walking the various hiking trails, utilizing forest access roads, or using snowmobile trails, this zone provides excellent opportunities for sport hunting/fishing and adventure tourism activity.

##### Critical Elements:

##### Wilderness

Some adventure tourism activities are captivated by the existence of wilderness areas. If best management techniques are not applied, forest harvesting may result in the alteration of this feeling of pristine wilderness, which could have some short-term adverse effects.

##### Accessibility

Construction and maintenance of Forest Access roads have both positive and negative effects. On the positive side, it provides the ability to increase vehicles and ATV/UTV traffic, allowing for more opportunities for this activity. However, on a negative side, it also has the potential to decrease the value of the experience for those individuals seeking a “remote” type setting.

##### Viewscapes

Either walking on a trail, snowmobiling on a groomed trail or canoeing down a river, the visual experience of the surrounding land base plays an important role in the overall pleasure of the activity. Over the past number of years, viewsapes have become an integral part of forest management planning.

#### Guiding Principles:

##### Wilderness

Established ecological reserve areas are not available for harvesting or road construction. Forestry, through the five-year planning process and EA registration consults with local stakeholders. In areas with high concentrations of recreational activities the five-year planning process and EA registration will engage and inform sufficient stakeholders of forest management activities with the goal of reducing conflicts and providing mitigations when identified.

##### Limiting Accessibility

Where possible in sensitive areas, forest harvesting will be scheduled during winter months to take advantage of winter road construction techniques. Winter roads usually restrict vehicular traffic and decommission naturally. In addition, decommissioning regular forest access roads near sensitive areas is a possible option when forest operations are completed.

##### Viewscape

Where possible within areas where high concentrations of recreational activities occur, negative impacts to viewsapes may be managed using landscape design techniques. This could mean that forest harvesting operations employ tree buffers, tree retention methods or implement reforestation activity immediately to return the site to a forested condition.

This initiative has proven to be difficult due to the requirement for specific observer points that are the only vantage points the analysis is valid for. The resulting areas left unmanaged can also pose issues as the viewable forest left is always changing and may require intervention in the future due to fire, wind, or insects. This delayed intervention period may be uneconomical due to the condition of the forest at that time.

It is important to remember that forests are dynamic, and a harvest is simply a reset of the forest age – not the loss of the forest. Harvests closely imitate natural disturbance and the green up will occur over a short time horizon.

The management of forest ecosystems utilizes strict requirements that require the landbase to retain 15% of the forest in the mature age class.

## **SECTION 6 MITIGATIONS**

### **6.1 General**

SFM follows an adaptive management process. Mitigation is an integral part of adaptive management. As soon as information becomes available from previous activities mitigations are incorporated. These are generally incorporated into the Environmental Protection Guidelines yearly. 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 within 100 meters of the center of Newfoundland T’Railway.
- 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 General

Beginning in the mid 1990's, the Forestry Services Branch embarked upon a rigorous public consultation process for Five-year Plans. This process involved a series of meetings spanning several months at an established venue, where interested stakeholders could discuss a range of forest management issues at an operational level.

Following SFM Adaptive Management Processes, the Forest Service now utilizes a list of known stakeholders and sends an electronic package showing proposed operating areas Silviculture and Roads. The stakeholders may provide input into the plans prior to the plan submission to EA.

Amendments to the Forestry Act in 2005 added a requirement for a Sustainable Forest Management Strategy every ten years and added the word Sustainable to plans. Consultation was required for Sustainable Forest Management Plans and the Sustainable Forest Management Strategy.

The Forestry Services Branch released the first 10-year Provincial Sustainable Forest Management Strategy (PSFMS) in 2003 and the second Strategy document in 2014. The third Strategy Document is under final review. 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.

The Known stakeholders identified from previous planning processes, and an internal provincial department review were contacted directly through email. The Information regarding the proposed forest management plan and google earth files of proposed Commercial and Domestic areas and Roads were provided to:

- Town Councils
- Outfitters
- Indigenous Leaders
- MHA's

The list of stakeholder contacts, the comments received, and departmental responses are in Appendix 3.

## SECTION 8 MANAGEMENT OBJECTIVES AND STRATEGIES

### 8.1 Harvesting

The boreal forest is characterized by natural stand replacement following a disturbance, which results in the formation of relatively even aged stands. Harvesting systems, that are designed to emulate natural disturbance processes, can closely match the natural disturbance pattern.

The forest management harvesting and tending system, predominantly used in the boreal forest, is the Clearcut Silvicultural system. The clearcut harvest of this Silviculture system resembles natural disturbance patterns and provides harvesting economic effectiveness. The size, shape, arrangement, and juxtaposition of mature forest naturally vary across the Newfoundland boreal landscape topography and terrain conditions. Schedule stands for harvest in the Five -Year Plan therefore follow this natural fragmentation.

Following the SFM adaptive management strategy, Environmental Protection Guidelines (EPG's) have been implemented in Newfoundland and Labrador. Section 3 of the EP Guidelines directs that a minimum of 10 standing dead trees is to be left within each HA of clearcut. Additionally, District Ecosystem Managers may adjust the cut block size or shape in an annual operational plan when their professional opinion such a modification is advisable.

#### 8.1.1 Commercial

The older unalienated timber, considered in the worst condition, is targeted as a high harvest priority, followed by stands that have been damaged by insects and disease. In managed stands, this priority changes to allow for a faster rotation on sites that have been silviculturally treated.

Specific commercial strategies include:

- Design irregular cut blocks that follow contours and natural boundaries.
- Vary buffer widths to protect other values (i.e. larger buffers on salmon rivers).
- Utilize winter harvest on wet and sensitive sites.
- Maintain current size and distribution of clear cuts.
- Where possible, maintain unharvested strips between harvest blocks as wildlife utilization corridors.
- Use landscape design techniques to mitigate viewscales.
- Minimize timber utilization loss ( $< 6 \text{ m}^3/\text{ha}$ ).

### 8.1.2 Domestic

The harvest of domestic fuelwood and sawlogs occurs from designated areas, recent commercial harvest areas and sporadically throughout the zone with the removal of blowdown trees. Utilization of cutover residue, dead timber, and non-productive forest areas do not form part of the wood supply analysis.

Generally, domestic cutting areas are established near communities. However, within areas of the zone not covered by any operating areas, domestic permits may be issued to remote cabin owners for firewood as requested. The number of permits and volume associated with these permits will be extremely low and insignificant.

Most cutting occurs in fall and winter with extraction by snowmobile or ATV. Domestic permit allocation is 23 m<sup>3</sup>. Crown Domestic cutting permits also allow the cutting of deadwood and blowdowns on crown Land anywhere in the district.

The cutting of deadwood and blowdown is permitted in areas outside designated domestic harvest blocks, but not within areas designated for no harvest activity; Highway Buffer: No domestic cutting permitted within 100 metres of public highways, except for deadwood and blowdown; Waterbodies: A minimum 30 meter buffer will be maintained on both sides of all rivers, brooks, ponds or other waterbodies that are shown on 1:50,000 Topographic Maps.

Specific domestic strategies include:

- Target low volume stands, having poor commercial opportunities.
- Encourage use of poor-quality hardwoods and non-commercial softwood (birch, aspen larch). In areas where there are future softwood commercial operations, domestic harvesting is limited to non-commercial hardwood.
- Target dead burnt and insect damaged stands that are beyond commercial salvage.
- Target alienation class 3 lands that have low commercial opportunity.
- In areas of high domestic demand, limit volume allocation in designated cutting areas and encourage alternate sources (cutovers, landings, noncommercial forest, etc.).

### 8.1.3 Hardwoods

The forest inventory has information on hardwoods and a hardwood AAC is part of the provincial wood supply. Forest management objectives to increase hardwood occurrence on the landscape are beginning.

This is especially true of the urban interface where the department is encouraging the establishment of hardwoods as a fire mitigation strategy.

## 8.2 Silviculture

As a rule, approximately 80% of the Boreal Forest regenerates naturally following a disturbance. Depending on management objectives, forest renewal programs are applied by forest managers to the remaining 20% that do not successfully regenerate naturally.

Exceptions to applying silviculture on areas that may be regenerating naturally are based upon the species that is regenerating and the value of this species. Values are subjective and may be economic, social, or cultural as to the species being selected to form the future forest, or part of the future forest.

Specific silviculture strategies include:

- Ensure regeneration of areas disturbed by harvest, insect, wind and fire to prevent loss of productive land base
- Use thinning techniques in young stands to promote enhanced stand development, reduce rotation age, and increase the percentage of sawlogs
- Leave hardwoods, where possible, in pre-commercially thinned areas to increase stand diversity
- Where possible, promote species mixes particularly with spruce and hardwood to reduce susceptibility to insect attack and increase biological diversity
- Where possible, use seedlings grown from local seed sources to protect genetic diversity
- Ensure levels of planting and thinning used in the wood supply analysis are achieved
- Work towards pre harvest planning to identify areas with potential silviculture problems so that optimal prescriptions can be promptly employed

### 8.2.1 Forest Renewal

Forest renewal silvicultural treatments are designed to help facilitate a new forest after disturbances caused by harvesting, insects, wind, or fire. These prescriptions can involve site preparation (scarification) followed by planting, or direct planting.

Following all commercial harvest disturbances, an assessment by trained NL Forest department staff is carried out on the harvested areas. An assessment of the stocking level is entered into a silviculture database along with a recommendation on a silviculture prescription for that area. When a site does not regenerate at all, a full planting program is required.

#### 8.2.1.1 Site Preparation

In some cases, the site may need to be manually prepared to aid in the establishment and growth of the planted seedlings (generally black or white spruce). Site preparation techniques can include:

- Mechanical site preparation (scarification) involves using heavy equipment (skidder) equipped with special attachments to reduce the thickness of the duff layer, and remove or disturb any kalmia that is present, which would restrict seedling growth.
- Prescribed burning is used to sanitize some sites where adelgid is present. This treatment reduces the slash loading and duff thickness to prepare the site for planting and kills any balsam fir which could potentially perpetuate the adelgid problem.
- Treatment to prepare sites that have been overgrown with hardwoods and other herbaceous species has been done with herbicides to reduce this competition, making the site more accessible and suitable for planting. Release herbicide treatment reduces the competition for a few years to allow planted seedlings to be established. In other instances, herbicides are used to control Kalmia either before or after planting. Herbicides, while used sparingly, are sometimes a necessary tool to help establish a new forest, particularly on better sites.

#### 8.2.1.2 Planting

A full planting technique is required when no regeneration occurs to ensure regeneration of selected tree species is at acceptable levels. Gap planting is normally achieved with spruce seedlings, coupled with the natural regeneration already present on site to increase seedling density to acceptable levels.

Planting lets the forest manager control harvested sites to a specific major future crop species and get sites back to a fully function forest stand earlier than natural processes.

On adelgid sites partially regenerated to balsam fir, planting is done through the existing regeneration to obtain sufficient stocking level of an adelgid resistance species. However, where adelgid has been a problem, balsam fir regeneration is sometimes ignored, and the site is planted with spruce seedlings.

Where possible, seedlings used in the silviculture program are grown with seed from local sources. Seed orchards have been established at Pynns Brook and Wooddale to produce seeds from plus trees collected throughout the province. Plus-trees are normally selected because they have superior growth and physiological characteristics. It is hoped that once the orchard is in full production, most of the planting stock will be grown from this source. The goal is to plant seedlings that have superior growth characteristics and thus increase yield and maintain genetic diversity.

Exotic species have been planted in trials at some locations in the zone. However, it is not anticipated to form any substantive proportion of the planting program in the foreseeable future.

## 8.2.2 Forest Improvement

### 8.2.2.1 Thinning

To enhance development, silviculture thinning programs are designed to improve established forest stands. Pre-Commercial Thinning (PCT) involves partial removal of overstocked, generally balsam fir stands, at a young age of 10 -15 years. In areas which have high moose browsing potential, the age is increased to 20 – 25 years, so that crop trees are tall enough to be out of reach of moose.

PCT reduces density levels which facilitates maximizing volume increment and operability (piece size). Trees that are cut are not of merchantable size and remain on site, returning the nutrients back into the soil. The manual thinning procedure mimics the natural forest thinning process that will occur at a later period in the stand development. Thinning gets the trees to a larger piece size at an earlier age. The remaining trees are at a younger age when they take on the dimensional characteristics of an older forest.

In the zone, balsam fir is usually thinned to favor any spruce present within the stand. This prescription results in a mixed softwood stand (depending on the original density of spruce) which is more diverse and less susceptible to insect infestation. Also, any hardwood species that are not in direct competition with spruce or fir are left to increase the biodiversity of the stand.

Commercial and Diameter Limit thinning would occur at the intermediate age 25 - 35 years and is undertaken in older balsam fir stands (either natural or previously thinned). It is designed to capture any mortality that would normally occur in the stand through self-thinning. The trees removed from commercial thinning operations are extracted and utilized. The remaining trees are left to grow, free from competition and are harvested when they mature. As with PCT, spruce and hardwood are left where possible to increase stand diversity.

Thinning programs aim to shorten the rotation period of a stand and produce large diameter stems. This program should increase the percentage of merchantable volume considered suitable for sawlogs. Commercial thinning has not been completed in the zone, and diameter limit thinning has been done sparingly. In recent years, the pre-commercial thinning program has dropped significantly. This trend is expected to continue.

More information on the Silviculture Program can be found on Governments Forestry website using the following address:

[Research - Forestry, Agriculture and Lands](#)

### 8.3 Access Roads

Forest roads are required to gain access to scheduled commercial harvest areas. Access roads also provide opportunities for other recreational and commercial values such as hunting, fishing, skiing, berry picking, hiking, outfitting, cabin development and mineral exploration.

The minimal amount of access road is constructed to effectively and efficiently conduct commercial harvest operations. Access roads are constructed to specifications that minimize right-of-way and running surface width.

Modern low soil compaction and high payload forwarding equipment balance the overall amount of road construction. In sensitive and wet areas, winter harvesting and road construction are encouraged. Following these principles helps to ensure the minimum number of roads will be constructed, reducing the loss of productive forest land base and minimizing environmental disturbance. Road and bridge maintenance and/or decommissioning are considered depending on cost, and mitigation of conflicting uses for a particular road.

More information on the Roads Program can be found on Governments Forestry website using the following address:

[Resource Access Roads - Forestry, Agriculture and Lands](#)

Specific roads strategies include:

- Construct winter roads in sensitive and wet areas.
- Design roads utilizing the maximum economical forwarding distances.
- Use minimum road standards to safely and effectively match the logging chance.
- Consider road decommissioning on roads near remote outfitting lodges and other areas of concern when requested and where feasibly possible.
- Determine impacts and explore alternatives (cost sharing) in areas when road and bridge decommissioning impacts other stakeholders.
- Explore all avenues to secure funding for road construction and encourage operators to build their own roads in exchange for royalty reductions.

## 8.4 Forest Protection

### 8.4.1 Insects and Disease

- Insects have been considered a major natural disturbance within the zone. Balsam fir is susceptible to most of the major insects including spruce budworm, hemlock looper, and balsam woolly adelgid. In the event of a major insect infestation, salvage efforts may change harvest priorities. However, deviations from harvest schedules will be closely monitored to ensure that the validity of the AAC is not compromised.
- Monitoring and protection programs for insects and disease are coordinated by the forest protection division in Corner Brook. Local district staff aid in detection, monitoring, and protection of surveys against insects and disease.

Specific insect and disease strategies include:

- Use silvicultural techniques at the stand level to alter species mix and increase stand vigor to make stands less susceptible to insect attack.
- Where possible, use harvest scheduling techniques to alter species mix across the landscape to minimize potential for severe insect infestation.
- In conjunction with provincial and federal initiatives, use pertinent and approved insecticides.

More information on the Forest Insect Control Program can be found on Governments Forestry website using the following address:

[Forest Insect and Disease Control - Forestry, Agriculture and Lands](#)

#### 8.4.2 Fire

There has been a cyclic fire history in the zone. A fire in an unusually dry year can have devastating effects on the forest and can exacerbate an established wood supply. The risk of a serious forest fire can be minimized by maintaining a highly trained, efficient and effective fire control program and by minimizing the risk in forest stands through maintenance of forest health and vigor.

Within the zone, there have been major forest fires in the past. In the previous 5-year plan, developed in 2021, it was noted that “wildfire has not been a major issue in recent years”. Fires in 2025 were significant on the eastern and central island, including Zone 3 and warming trends imply this may increase fires in the zone.

Foresters use the term first coined in 1995 by UBC Biologist Daniel Pauley in a paper named **"Anecdotes and the shifting baseline syndrome of fisheries,"** published in the journal *Trends in Ecology and Evolution*. The term is Shifting Baseline Syndrome. The term is used in forestry to explain what is perceived as being normal over a human's experience may not be what is the longer-term norm for a forest ecosystem.

Shifting baseline may be very relevant to current memory as it relates to the fire history in insular NL. Anthropogenic extreme fire effects were recorded when settlers first arrived and expanded when the railway was first constructed. With global warming effects, conditions for extreme fire events may occur more often.

The Department of Forestry, Agriculture & Lands is committed to protecting the resource and continues to invest in a fire suppression program to ensure any future losses are minimized. There are fire crews and equipment stationed at local forestry depots within the zone during the forest fire season, whose direct responsibility is forest fire protection. In addition, support, equipment and manpower at both the regional and provincial level is available should the need arise. There are five air tankers available stationed as required, at Deer Lake, Gander, Goose Bay and Wabash and helicopters in Gander that are available for

initial attacks. More information on the Forest Fire Program can be found on Governments Forestry website using the following address:

[Protection - Forestry, Agriculture and Lands](#)

### 8.4.3 Windthrow

Wind throw usually occurs in older stands that have been predisposed by some other disturbance such as insects and disease. To minimize the effects of Windthrow (blowdown), stands will be managed to promote forest health and vigor mainly through silvicultural treatments and protection from insects.

Specific windthrow strategies include:

- avoid thinning in areas with high wind damage potential (hilltops on high elevations etc.)
- maintain forest in healthy vigorous condition through silvicultural treatments and protection from insects
- design cut blocks to follow contours and natural boundaries to minimize risk of windthrow to residual forest

## 8.5 Environmental Protection

### 8.5.1 General Environment

The Department of Forestry, Agriculture and Lands has 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

Utilization surveys will be conducted on both commercial and domestic cutovers to ensure loss of merchantable timber is minimized. The 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 those 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

### 8.6.1 General

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**

### **9.1 General**

This section will outline all forest activities that will occur on crown land in the zone from 2027 to 2031 including proposed commercial and domestic harvesting, silviculture, access road construction, and activities proposed within protected water supply areas.

To present a more comprehensive overview of proposed activities, a map overview of the zone is presented in Appendix 1. These maps show all proposed operating areas with each operating area name so that operations can be viewed from a district landscape perspective. Summary sheets of each of these operating areas are presented in Appendix 2. The summary sheets give a brief description of each of the operating areas identified on the overview maps, the type of activities that will occur, and any issues raised and mitigative measures employed.

#### **9.1.1 Allocation of Timber Supply**

##### **9.1.1.1 Commercial**

The timber scheduled for commercial harvest in the zone is overmature with some small pockets of mature dispersed throughout. This proposed harvest approximates the harvest schedule that was used to determine the AAC. The allocated operating area and associated harvest volumes represent as much as two times the actual proposed harvest. The purpose of including more volume than is proposed is to allow for operational flexibility and inventory deviations within operating areas without having to constantly amend the plan. These operations occur manually using conventional harvesting equipment such as chainsaws with skidder or forwarder extraction - or fully mechanically using short-wood harvesters and/or feller bunchers, with skidder or forwarder extraction and are conducted year-round. The more sensitive sites are usually harvested in winter, and most operations are integrated utilizing sawlogs, pulpwood and fuelwood.

While the total volume identified may be over the final AAC for the management district, when scheduling activity, the maximum sustainable harvest over the five-year period will not be exceeded.

Proposed commercial harvesting is summarized in the tables below.

Table 23: Proposed Commercial Harvesting District 4

| Operating Area FMD 04 |         |               |             | Proposed Commercial Harvest Volume (m3) |                           |                |               |                           |               |
|-----------------------|---------|---------------|-------------|-----------------------------------------|---------------------------|----------------|---------------|---------------------------|---------------|
|                       |         |               |             | SOFTWOOD                                |                           |                | HARDWOOD      |                           |               |
| Name                  | OA      | Tenure        | Productive  | Core                                    | Operationally Constrained | Total          | Core HW       | Operationally Constrained | Total         |
|                       |         |               | Area (ha)   |                                         |                           |                |               | HW                        |               |
| Fleighers FMD4        | CC04001 | Crown         | 62          | 3,000                                   | 0                         | 3,000          | 50            | 0                         | 50            |
| Camp Ten              | CC04002 | Crown         | 41          | 2,000                                   | 0                         | 2,000          | 100           | 0                         | 100           |
| Dead Wolf Branch      | CC04003 | Crown         | 1178        | 40,000                                  | 0                         | 40,000         | 2,000         | 0                         | 2,000         |
| Triton Brook          | CC04004 | Crown         | 670         | 30,000                                  | 0                         | 30,000         | 2,000         | 0                         | 2,000         |
| Riverhead Branch      | CC04005 | Crown         | 322         | 10,000                                  | 0                         | 10,000         | 1,000         | 0                         | 1,000         |
| Mint Brook Road       | CC04006 | Crown         | 235         | 12,000                                  | 0                         | 12,000         | 500           | 0                         | 500           |
| Terra Nova FMD4       | CC04007 | Crown         | 63          | 2,000                                   | 0                         | 2,000          | 100           | 0                         | 100           |
| Masons Pond           | CC04010 | Crown         | 334         | 15,000                                  | 0                         | 15,000         | 500           | 0                         | 500           |
| Terra Nova South      | CC04011 | Crown         | 473         | 10,421                                  | 0                         | 10,421         | 474           | 0                         | 474           |
| Johns Pond            | CC04012 | Crown         | 1933        | 145,830                                 | 0                         | 145,830        | 7,184         | 0                         | 7,184         |
| Sams Pond             | CC04014 | Crown         | 447         | 34,986                                  | 0                         | 34,986         | 2,860         | 0                         | 2,860         |
| Pinsents Ridge        | CC04015 | Crown         | 120         | 9,192                                   | 0                         | 9,192          | 374           | 0                         | 374           |
|                       |         | <b>TOTAL:</b> | <b>5879</b> | <b>314,429</b>                          | <b>0</b>                  | <b>314,429</b> | <b>17,142</b> | <b>0</b>                  | <b>17,142</b> |

TABLE 24: PROPOSED COMMERCIAL HARVESTING DISTRICT 5

| Operating Area FMD 05 |         |        |            | Proposed Commercial Harvest Volume (m3) |                           |         |          |                           |       |
|-----------------------|---------|--------|------------|-----------------------------------------|---------------------------|---------|----------|---------------------------|-------|
|                       |         |        |            | SOFTWOOD                                |                           |         | HARDWOOD |                           |       |
| Name                  | OA      | Tenure | Productive | Core                                    | Operationally Constrained | Total   | Core HW  | Operationally Constrained | Total |
|                       |         |        | Area (ha)  |                                         |                           |         |          | HW                        |       |
| Harvey Pond           | CC05001 | Crown  | 75         | 7,000                                   | 0                         | 7,000   | 100      | 0                         | 100   |
| Island Pond           | CC05003 | Crown  | 491        | 25,000                                  | 0                         | 25,000  | 500      | 0                         | 500   |
| Boot Pond             | CC05004 | Crown  | 159        | 8,000                                   | 0                         | 8,000   | 300      | 0                         | 300   |
| Lower Dark Cove       | CC05007 | Crown  | 621        | 18,000                                  | 0                         | 18,000  | 2,000    | 0                         | 2,000 |
| Chain Pond North      | CC05012 | Crown  | 96         | 5,000                                   | 0                         | 5,000   | 200      | 0                         | 0     |
| Rocky Pond            | CC05013 | Crown  | 830        | 50,000                                  | 0                         | 50,000  | 2,000    | 0                         | 2,000 |
| Terra Nova FMD5       | CC05014 | Crown  | 215        | 5,000                                   | 0                         | 5,000   | 200      | 0                         | 0     |
| Southwest Pond        | CC05015 | Crown  | 416        | 13,000                                  | 0                         | 13,000  | 500      | 0                         | 0     |
| Blade Road            | CC05018 | Crown  | 150        | 9,000                                   | 0                         | 9,000   | 500      | 0                         | 500   |
| Chain Pond South      | CC05020 | Crown  | 73         | 3,500                                   | 0                         | 3,500   | 50       | 0                         | 50    |
| Soulis Pond           | CC05021 | Crown  | 232        | 3,000                                   | 0                         | 3,000   | 500      | 0                         | 500   |
| Burnside              | CC05022 | Crown  | 789        | 30,000                                  | 0                         | 30,000  | 3,000    | 0                         | 0     |
| Barry's Forth Pond    | CC05023 | Crown  | 299        | 10,000                                  | 0                         | 10,000  | 300      | 0                         | 0     |
| Crown Ridge           | CC05031 | Crown  | 338        | 6,000                                   | 0                         | 6,000   | 600      | 0                         | 0     |
| TOTAL:                |         |        | 4785       | 192,500                                 | 0                         | 192,500 | 10,750   | 0                         | 5,950 |

TABLE 25: PROPOSED COMMERCIAL HARVESTING DISTRICT 6

| Operating Area FMD 06 |         |        |            | Proposed Commercial Harvest Volume (m3) |                           |         |          |                           |        |
|-----------------------|---------|--------|------------|-----------------------------------------|---------------------------|---------|----------|---------------------------|--------|
|                       |         |        |            | SOFTWOOD                                |                           |         | HARDWOOD |                           |        |
| Name                  | OA      | Tenure | Productive | Core                                    | Operationally Constrained | Total   | Core HW  | Operationally Constrained | Total  |
|                       |         |        | Area (ha)  |                                         |                           |         |          | HW                        |        |
| Glenwood              | CC06001 | Crown  | 551        | 10,000                                  | 0                         | 10,000  | 500      | 0                         | 500    |
| Salmon River          | CC06002 | Crown  | 1902       | 35,400                                  | 0                         | 35,400  | 4,000    | 0                         | 4,000  |
| Junction              | CC06003 | Crown  | 243        | 3,500                                   | 0                         | 3,500   | 1,000    | 0                         | 1,000  |
| Grant's Lake          | CC06005 | Crown  | 367        | 9,000                                   | 0                         | 9,000   | 1,500    | 0                         | 1,500  |
| Scowett Pond          | CC06006 | Crown  | 689        | 10,000                                  | 0                         | 10,000  | 700      | 0                         | 700    |
| Bog Camp              | CC06010 | Crown  | 1185       | 50,000                                  | 0                         | 50,000  | 1,000    | 0                         | 1,000  |
| Hunts Pond East       | CC06012 | Crown  | 343        | 7,500                                   | 0                         | 7,500   | 100      | 0                         | 100    |
| Hunts Pond West       | CC06016 | Crown  | 2273       | 120,000                                 | 0                         | 120,000 | 4,000    | 0                         | 4,000  |
| Skin Bridge           | CC06019 | Crown  | 91         | 6,000                                   | 0                         | 6,000   | 200      | 0                         | 200    |
| Fleighers FMD6        | CC06020 | Crown  | 25         | 1,800                                   | 0                         | 1,800   | 50       | 0                         | 50     |
| TOTAL:                |         |        | 7669       | 253,200                                 | 0                         | 253,200 | 13,050   | 0                         | 13,050 |

TABLE 26: PROPOSED COMMERCIAL HARVESTING DISTRICT 8

| Operating Area FMD 08      |         |        |            | Proposed Commercial Harvest Volume (m3) |                           |         |          |                           |        |
|----------------------------|---------|--------|------------|-----------------------------------------|---------------------------|---------|----------|---------------------------|--------|
|                            |         |        |            | SOFTWOOD                                |                           |         | HARDWOOD |                           |        |
| Name                       | OA      | Tenure | Productive | Core                                    | Operationally Constrained | Total   | Core HW  | Operationally Constrained | Total  |
|                            |         |        | Area (ha)  |                                         |                           |         |          | HW                        |        |
| Southwest Pond             | CC08001 | Crown  | 212        | 2,000                                   | 0                         | 2,000   | 250      | 0                         | 250    |
| Gutt Road                  | CC08002 | Crown  | 369        | 8,000                                   | 0                         | 8,000   | 340      | 0                         | 340    |
| Bellman's Brook            | CC08003 | Crown  | 231        | 2,500                                   | 0                         | 2,500   | 150      | 0                         | 150    |
| Second Pond                | CC08004 | Crown  | 899        | 17,000                                  | 0                         | 17,000  | 3,500    | 0                         | 3,500  |
| Third Pond                 | CC08005 | Crown  | 332        | 2,000                                   | 0                         | 2,000   | 500      | 0                         | 500    |
| 2 Mile Branch/Home Pond    | CC08006 | Crown  | 2623       | 15,000                                  | 0                         | 15,000  | 750      | 0                         | 750    |
| Salmon Pond                | CC08007 | Crown  | 352        | 4,500                                   | 0                         | 4,500   | 500      | 0                         | 500    |
| Back Pond                  | CC08008 | Crown  | 109        | 2,000                                   | 0                         | 2,000   | 100      | 0                         | 100    |
| Burnt Lake                 | CC08009 | Crown  | 195        | 2,600                                   | 0                         | 2,600   | 2,800    | 0                         | 2,800  |
| Punt Pond                  | CC08010 | Crown  | 286        | 2,450                                   | 0                         | 2,450   | 375      | 0                         | 375    |
| Stoneville                 | CC08011 | Crown  | 667        | 11,500                                  | 0                         | 11,500  | 2,245    | 0                         | 2,245  |
| Celies Cove                | CC08012 | Crown  | 675        | 15,000                                  | 0                         | 15,000  | 3,000    | 0                         | 3,000  |
| Jumpers Pond               | CC08013 | Crown  | 238        | 5,000                                   | 0                         | 5,000   | 3,000    | 0                         | 3,000  |
| Long Pond                  | CC08014 | Crown  | 322        | 3,000                                   | 0                         | 3,000   | 100      | 0                         | 100    |
| Fawkes Pond                | CC08015 | Crown  | 319        | 7,000                                   | 0                         | 7,000   | 1,500    | 0                         | 1,500  |
| Loon Bay                   | CC08016 | Crown  | 692        | 8,000                                   | 0                         | 8,000   | 2,000    | 0                         | 2,000  |
| Birchy Bay Pond            | CC08017 | Crown  | 489        | 3,000                                   | 0                         | 3,000   | 500      | 0                         | 500    |
| Baytona                    | CC08018 | Crown  | 358        | 13,000                                  | 0                         | 13,000  | 1,200    | 0                         | 1,200  |
| Brinks Pond                | CC08019 | Crown  | 846        | 10,000                                  | 0                         | 10,000  | 3,000    | 0                         | 3,000  |
| Shipbuilders Pond          | CC08020 | Crown  | 122        | 1,000                                   | 0                         | 1,000   | 250      | 0                         | 250    |
| Salt Shed Road             | CC08021 | Crown  | 572        | 25,000                                  | 0                         | 25,000  | 2,000    | 0                         | 2,000  |
| Junction Highway           | CC08022 | Crown  | 284        | 8,000                                   | 0                         | 8,000   | 2,000    | 0                         | 2,000  |
| Snows Pond                 | CC08023 | Crown  | 437        | 7,500                                   | 0                         | 7,500   | 1,500    | 0                         | 1,500  |
| Otter Pond                 | CC08024 | Crown  | 234        | 5,000                                   | 0                         | 5,000   | 2,000    | 0                         | 2,000  |
| Wilf Keats                 | CC08025 | Crown  | 1076       | 13,000                                  | 0                         | 13,000  | 3,000    | 0                         | 3,000  |
| Milords Arm                | CC08026 | Crown  | 16         | 600                                     | 0                         | 600     | 200      | 0                         | 200    |
| Norris Arm North           | CC08027 | Crown  | 2039       | 75,000                                  | 0                         | 75,000  | 10,000   | 0                         | 10,000 |
| Norris Arm South/Mill Lake | CC08028 | Crown  | 637        | 1,500                                   | 0                         | 1,500   | 350      | 0                         | 350    |
| Exploits                   | CC08029 | Crown  | 179        | 6,000                                   | 0                         | 6,000   | 335      | 0                         | 335    |
| Diver Pond                 | CC08030 | Crown  | 2194       | 15,000                                  | 0                         | 15,000  | 6,000    | 0                         | 6,000  |
| Winter Tickle              | CC08031 | Crown  | 1451       | 18,000                                  | 0                         | 18,000  | 3,500    | 0                         | 3,500  |
| Askel Lake                 | CC08032 | Crown  | 285        | 6,000                                   | 0                         | 6,000   | 1,200    | 0                         | 1,200  |
| Osmonton Arm               | CC08033 | Crown  | 1971       | 24,000                                  | 0                         | 24,000  | 4,450    | 0                         | 4,450  |
| Snake Lake                 | CC08034 | Crown  | 1515       | 10,000                                  | 0                         | 10,000  | 1,500    | 0                         | 1,500  |
| Dans Pond                  | CC08035 | Crown  | 1604       | 50,000                                  | 0                         | 50,000  | 6,800    | 0                         | 6,800  |
| Total:                     |         |        | 24828      | 399,150                                 | 0                         | 399,150 | 70,895   | 0                         | 70,895 |

### 9.1.1.2 Domestic

Harvesting will occur in designated domestic cutting areas and is generally conducted on a small patch cut system. However, within areas of the zone not covered by any operating areas, domestic permits may be issued to remote cabin owners for firewood as requested. The number of permits and volume associated with these permits will be extremely low and insignificant. All domestic cutting is done under permit which has conditions attached that outline the species, volume, location and utilization standards to be employed. Most cutting occurs in fall and winter with extraction by snowmobile or ATV. Domestic permit allocation is 23 m<sup>3</sup>.

Domestic harvesting areas are summarized in the tables below.

TABLE 27: PROPOSED DOMESTIC HARVESTING DISTRICT 4

| Proposed Domestic Harvest FMD 04 |                |              |                            | Estimated 5 Year Volume (m3) |            |
|----------------------------------|----------------|--------------|----------------------------|------------------------------|------------|
| OA Name                          | OA #           | Area (ha)    | Number of Permits per Year | Softwood                     | Hardwood   |
| <b>Mint Brook</b>                | <b>CC04536</b> | <b>14568</b> | <b>32</b>                  | <b>2345</b>                  | <b>500</b> |
| <b>Terra Nova</b>                | <b>CC04590</b> | <b>1323</b>  | <b>50</b>                  | <b>3668</b>                  | <b>0</b>   |

TABLE 28: PROPOSED DOMESTIC HARVESTING DISTRICT 5

| Proposed Domestic Harvest FMD 05 |         |           |                            | Estimated 5 Year Volume (m3) |          |
|----------------------------------|---------|-----------|----------------------------|------------------------------|----------|
| OA Name                          | OA #    | Area (ha) | Number of Permits per Year | Softwood                     | Hardwood |
| Fogo Island West                 | CC05501 | 6987      | 92                         | 6596                         | 152      |
| Fogo Island East                 | CC05502 | 9144      | 57                         | 4172                         | 9        |
| Frederickton                     | CC05504 | 6758      | 135                        | 9413                         | 490      |
| Gander Bay South                 | CC05505 | 5341      | 98                         | 6727                         | 461      |
| Carmanville                      | CC05506 | 19962     | 146                        | 10440                        | 269      |
| Indian Bay                       | CC05507 | 8010      | 73                         | 5021                         | 334      |
| Aspen Cove - Ladle Cove          | CC05508 | 1767      | 33                         | 2369                         | 52       |
| Musgrave Harbour                 | CC05509 | 9859      | 73                         | 5305                         | 50       |
| Shalloway Brook                  | CC05510 | 5018      | 25                         | 1834                         | 0        |
| Deadman's Bay                    | CC05511 | 4528      | 73                         | 3834                         | 1521     |
| Cape Freels                      | CC05512 | 6336      | 17                         | 1099                         | 148      |
| Templeman - Pound Cove           | CC05513 | 22002     | 87                         | 6381                         | 0        |
| Greenspond                       | CC05514 | 8852      | 54                         | 3508                         | 453      |
| Indian Bay Waters                | CC05515 | 28732     | 68                         | 0                            | 4988     |
| CWT Indian Bay                   | CC05516 | 8934      | 39                         | 2548                         | 313      |
| Trinity                          | CC05517 | 7361      | 65                         | 4401                         | 367      |
| Hare Bay/Dover                   | CC05518 | 5838      | 47                         | 3250                         | 198      |
| Traverse Brook - Gambo           | CC05519 | 3121      | 57                         | 3936                         | 245      |
| Gambo                            | CC05520 | 3005      | 80                         | 4917                         | 951      |
| Drover's Ridge                   | CC05521 | 4585      | 44                         | 2662                         | 565      |
| Glovertown                       | CC05522 | 4346      | 98                         | 6536                         | 652      |
| Grants                           | CC05523 | 2299      | 11                         | 777                          | 30       |
| Terra Nova River                 | CC05524 | 4499      | 46                         | 3120                         | 254      |
| Traytown                         | CC05525 | 1767      | 46                         | 3281                         | 93       |
| Drover's Ridge - Alexander Bay   | CC05526 | 596       | 5                          | 279                          | 87       |
| Eastport - St. Chad's            | CC05527 | 2658      | 51                         | 3741                         | 0        |
| Eastport - Salvage               | CC05528 | 4124      | 33                         | 2390                         | 30       |
| St. Brendan's                    | CC05529 | 4880      | 10                         | 734                          | 0        |
| Benton                           | CC05531 | 1676      | 35                         | 2761                         | 233      |
| Gander                           | CC05532 | 266       | 30                         | 2109                         | 91       |
| Gander Bay - Weir's Pond         | CC05533 | 4485      | 68                         | 4896                         | 92       |
| Cat Bay                          | CC05535 | 1295      | 3                          | 172                          | 48       |
| Terra Nova                       | CC05537 | 5995      | 22                         | 1538                         | 76       |
| Gander - Boot Pond               | CC05539 | 27306     | 162                        | 11604                        | 279      |
| Indian Bay                       | CC05540 | 8010      | 44                         | 3091                         | 136      |

TABLE 29: PROPOSED DOMESTIC HARVESTING DISTRICT 6

| Proposed Domestic Harvest FMD 06               |                |              |                            | Estimated 5 Year Volume (m3) |             |
|------------------------------------------------|----------------|--------------|----------------------------|------------------------------|-------------|
| OA Name                                        | OA #           | Area (ha)    | Number of Permits per Year | Softwood                     | Hardwood    |
| <b>Caribou Lake</b>                            | <b>CC06543</b> | <b>41431</b> | <b>14</b>                  | <b>0</b>                     | <b>367</b>  |
| <b>Hunts Pond</b>                              | <b>CC06544</b> | <b>25669</b> | <b>5</b>                   | <b>0</b>                     | <b>1027</b> |
| <b>Bear Lake / Makey Freaks/Burnt Bay Lake</b> | <b>CC06542</b> | <b>997</b>   | <b>8</b>                   | <b>435</b>                   | <b>140</b>  |
| <b>Burnt Bay Lake</b>                          | <b>CC06529</b> | <b>477</b>   | <b>2</b>                   | <b>85</b>                    | <b>60</b>   |
| <b>Eel Lake</b>                                | <b>CC06530</b> | <b>57</b>    | <b>10</b>                  | <b>25</b>                    | <b>25</b>   |
| <b>Glenwood</b>                                | <b>CC06541</b> | <b>504</b>   | <b>44</b>                  | <b>2515</b>                  | <b>645</b>  |

TABLE 30: PROPOSED DOMESTIC HARVESTING DISTRICT 8

| Proposed Domestic Harvest FMD 08 |          |           |                                  | Estimated 5 Year Volume<br>(m3) |          |
|----------------------------------|----------|-----------|----------------------------------|---------------------------------|----------|
| OA Name                          | OA #     | Area (ha) | Number of<br>Permits per<br>Year | Softwood                        | Hardwood |
| Change Island                    | CC08501  | 2101      | 19                               | 1245                            | 20       |
| New World Island                 | CC08503  | 30556     | 359                              | 23745                           | 165      |
| Chapel Island                    | CC08504  | 2101      | 40                               | 2585                            | 60       |
| Stoneville                       | CC08505  | 4359      | 58                               | 3640                            | 155      |
| Horwood                          | CC08506  | 4748      | 62                               | 4060                            | 50       |
| Boyd's Cove-1st and 2nd Pond     | CC08507  | 4354      | 48                               | 3095                            | 55       |
| Wing's Point-Gander Bay          | CC08508  | 6136      | 102                              | 6545                            | 135      |
| Clark's Head-Burnt Lake          | CC08509  | 4637      | 39                               | 2510                            | 45       |
| Lewisporte                       | CC08510  | 2606      | 85                               | 5300                            | 290      |
| Horse Chops-7 Mile-Celies Cove   | CC08511  | 4833      | 106                              | 6800                            | 140      |
| Baytona                          | CC08512  | 741       | 33                               | 2165                            | 20       |
| Birchy Bay Access Road           | CC08514  | 2401      | 65                               | 4150                            | 95       |
| Loon Bay                         | CC08515  | 987       | 35                               | 2065                            | 145      |
| Shipbuilders                     | CC08517  | 2089      | 58                               | 3505                            | 185      |
| Comfort Cove-Newstead            | CC08518  | 1961      | 22                               | 1410                            | 40       |
| Michael's Harbour Access Road    | CC08519  | 5913      | 48                               | 2825                            | 215      |
| Lewisporte South Side            | CC08520  | 2985      | 56                               | 3320                            | 225      |
| Pit Road                         | CC08521  | 651       | 40                               | 2420                            | 155      |
| Otter Pond                       | CC08522  | 2010      | 49                               | 2845                            | 220      |
| Ten Mile Lake - East Side        | CC08523  | 4482      | 28                               | 1805                            | 30       |
| Bellman's Pond                   | CC08524  | 6341      | 11                               | 705                             | 15       |
| Embree-Little Burnt Bay          | CC08525  | 4172      | 94                               | 6095                            | 115      |
| Wilf Keats Road                  | CC08526  | 2334      | 52                               | 3370                            | 50       |
| Lawrenceton-Brown's Arm          | CC08527  | 4067      | 44                               | 2870                            | 30       |
| Norris Arm North                 | CC08528  | 2565      | 35                               | 1805                            | 410      |
| Eel Lake                         | CC08530  | 31        | 18                               | 1200                            | 0        |
| Norris Arm South                 | CC08531  | 597       | 32                               | 1515                            | 620      |
| Rattling Br/Jumper's Br/Exploits | CC08534  | 910       | 18                               | 1025                            | 90       |
| Peterview                        | CC08536  | 2936      | 59                               | 3300                            | 395      |
| Northern Arm                     | CC08537  | 1445      | 59                               | 3700                            | 160      |
| Phillip's Head                   | CC08538  | 1014      | 49                               | 3175                            | 80       |
| Point of Bay                     | CC08539  | 2254      | 33                               | 2115                            | 65       |
| Thwart Island                    | CC08540  | 2953      | 2                                | 135                             | 0        |
| Fortune Harbour                  | CC08543  | 8548      | 60                               | 3905                            | 70       |
| Ritter's Arm                     | CC08543A | 1555      | 12                               | 750                             | 25       |
| Point Leamington                 | CC08544  | 2016      | 50                               | 3140                            | 100      |
| Paradise                         | CC08545  | 3080      | 15                               | 925                             | 50       |
| Big Lake                         | CC08547  | 2963      | 66                               | 3930                            | 270      |
| Leading Ticksles                 | CC08548  | 9486      | 65                               | 4065                            | 205      |

### 9.1.1.3 Hardwoods

This domestic harvest of birch occurs as a mixture in softwood stands and softwood-hardwood stands and is utilized as fuelwood. The commercial hardwood harvest is for sawlogs and fuelwood and occurs in some pure stands but mostly as the residual hardwood in softwood and softwood/hardwood stands.

### 9.1.2 Silviculture

Potential silvicultural treatment areas need to undergo reconnaissance and / or intensive surveys to determine the regeneration level and severity of adelgid attacks. Silviculture prescriptions have been developed for implementation on specific site conditions. Areas that are scheduled for commercial harvest or have been harvested are identified on operating area maps and are candidates for planting or gap planting to black or white spruce. These areas will undergo reconnaissance and intensive regeneration surveys to determine the need for planting and the presence of adelgid.

Site preparation using either mechanical methods or prescribed burning will be employed on suitable sites having impediments to planting. On black spruce cutovers where kalmia is present, mechanical site preparation (row scarification) or prescribed burning will be used to disturb the kalmia and create suitable microsites to plant black spruce. In balsam fir areas, burning is a preferred treatment to sanitize the site of any existing adelgid infested trees.

Anticipated Silviculture levels over the 5-yr planning period are identified in Section 3. Specific locations within operating areas will be identified in the Annual Operating Plan.

Additional silviculture zones for districts that are not in commercial operating areas are shown in the table below, and overview maps are shown in the appendix.

TABLE 31: ADDITIONAL SILVICULTURE OPERATING AREAS ZONE 3

| FMD 04    |                              |         |                |
|-----------|------------------------------|---------|----------------|
| Treatment | Silviculture Operating Areas | OA      | Area           |
| Planting  | Terra Nova South             | CC04011 | To be assessed |
| FMD 05    |                              |         |                |
| Treatment | Silviculture Operating Areas | OA      | Area           |
| Planting  | Maccles Lake South           | CC05005 | To be assessed |
| Planting  | Maccles Lakes North          | CC05009 | To be assessed |
| Planting  | Turkey Farm                  | CC05017 | To be assessed |
| Planting  | Boot Pond Road               | CC05039 | To be assessed |
| FMD 06    |                              |         |                |
| Treatment | Silviculture Operating Areas | OA      | Area           |
| Planting  | Waste Management Facility    | CC06004 | To be assessed |
| Planting  | Little Dead Wolf             | CC06011 | To be assessed |
| Planting  | Hunts Pond Silviculture      | CC06021 | To be assessed |

### 9.1.3 Primary Access Roads and Bridges

There are 198 km of new forest access roads scheduled to be constructed within the zone for the next five years to access timber for commercial purposes. All roads will be built to the specifications of the Class C, C-2 standards, and all pertinent Environmental Protection Guidelines (EPG's) for Forestry Operations in Newfoundland and Labrador will be followed. In addition, secondary, operational and winter access roads and upgrading of existing roads will be required and will be submitted in the annual operating plan prior to the year that they are planned to be built. Also, referrals will be sent to all relevant agencies (including DFO and Water Resources Division) before any construction is initiated.

The tables below show the proposed roads for the zone.

TABLE 32: PROPOSED ROAD CONSTRUCTION DISTRICT 4

| Area Name        | OA #    | Construction<br>(Length km) | Reconstruction<br>(Length Km) | Water Crossings |         |
|------------------|---------|-----------------------------|-------------------------------|-----------------|---------|
|                  |         |                             |                               | Culverts        | Bridges |
| Fleighers FMD4   | CC04001 | 0.30                        | 0                             | 0               | 0       |
| Dead Wolf Branch | CC04003 | 5.40                        | 0                             | 0               | 0       |
| Triton Brook     | CC04004 | 1.00                        | 0                             | 0               | 0       |
| Riverhead Branch | CC04005 | 1.50                        | 0                             | 0               | 0       |
| Masons Pond      | CC04010 | 3.50                        | 0                             | 0               | 0       |
| Johns Pond       | CC04012 | 18.40                       | 0                             | 3               | 1       |
| Sams Pond        | CC04014 | 3.40                        | 0                             | 2               | 0       |

TABLE 33: PROPOSED ROAD CONSTRUCTION DISTRICT 5

| Area Name          | OA #    | Construction<br>(Length km) | Reconstruction<br>(Length Km) | Water Crossings |         |
|--------------------|---------|-----------------------------|-------------------------------|-----------------|---------|
|                    |         |                             |                               | Culverts        | Bridges |
| Island Pond        | CC05003 | 5.00                        | 0                             | 1               | 0       |
| Boot Pond          | CC05004 | 1.35                        | 4.8                           | 0               | 0       |
| Lower Dark Cove    | CC05007 | 4.00                        | 0                             | 0               | 0       |
| Chain Pond North   | CC05012 | 1.60                        | 0                             | 0               | 0       |
| Rocky Pond         | CC05013 | 4.30                        | 0                             | 0               | 1       |
| Terra Nova FMD5    | CC05014 | 3.60                        | 0                             | 0               | 0       |
| Southwest Pond     | CC05015 | 2.50                        | 0                             | 0               | 0       |
| Blade Road         | CC05018 | 1.50                        | 0                             | 0               | 0       |
| Chain Pond South   | CC05020 | 1.30                        | 0                             | 0               | 0       |
| Soulis Pond        | CC05021 | 1.35                        | 0                             | 0               | 0       |
| Burnside           | CC05022 | 7.90                        | 0                             | 3               | 0       |
| Barry's Forth Pond | CC05023 | 1.30                        | 0                             | 0               | 0       |

TABLE 34: PROPOSED ROAD CONSTRUCTION DISTRICT 6

| Area Name               | OA #    | Construction<br>(Length km) | Reconstruction<br>(Length Km) | Water Crossings |         |
|-------------------------|---------|-----------------------------|-------------------------------|-----------------|---------|
|                         |         |                             |                               | Culverts        | Bridges |
| Bog Camp                | CC06010 | 10.80                       | 0                             | 2               | 0       |
| Hunts Pond East         | CC06012 | 2.60                        | 0                             | 0               | 0       |
| Hunts Pond West         | CC06016 | 18.00                       | 0                             | 1               | 2       |
| Hunts Pond Silviculture | CC06021 | 1.00                        | 0                             | 0               | 0       |

TABLE 35: PROPOSED ROAD CONSTRUCTION DISTRICT 8

| Area Name               | OA #    | Construction<br>(Length km) | Reconstruction<br>(Length Km) | Water Crossings |         |
|-------------------------|---------|-----------------------------|-------------------------------|-----------------|---------|
|                         |         |                             |                               | Culverts        | Bridges |
| Bellman's Brook         | CC08003 | 1.10                        | 1.06                          | 0               | 0       |
| Second Pond             | CC08004 | 1.83                        | 0                             | 0               | 0       |
| 2 Mile Branch/Home Pond | CC08006 | 4.37                        | 0.86                          | 1               | 1       |
| Salmon Pond             | CC08007 | 2.11                        | 0                             | 0               | 0       |
| Stoneville              | CC08011 | 2.38                        | 0                             | 1               | 0       |
| Celies Cove             | CC08012 | 4.00                        | 0                             | 1               | 0       |
| Fawkes Pond             | CC08015 | 2.11                        | 0                             | 0               | 0       |
| Baytona                 | CC08018 | 7.29                        | 0                             | 1               | 0       |
| Brinks Pond             | CC08019 | 4.84                        | 0                             | 1               | 0       |
| Salt Shed Road          | CC08021 | 1.34                        | 2.6                           | 0               | 1       |
| Junction Highway        | CC08022 | 2.56                        | 0                             | 2               | 0       |
| Snows Pond              | CC08023 | 3.29                        | 0                             | 2               | 0       |
| Otter Pond              | CC08024 | 0.87                        | 0                             | 0               | 0       |
| Wilf Keats              | CC08025 | 2.42                        | 0                             | 1               | 0       |
| Norris Arm North        | CC08027 | 11.03                       | 10.88                         | 4               | 3       |
| Exploits                | CC08029 | 5.28                        | 0                             | 0               | 1       |
| Diver Pond              | CC08030 | 5.87                        | 0                             | 2               | 1       |
| Winter Tickle           | CC08031 | 6.04                        | 0                             | 0               | 1       |
| Askel Lake              | CC08032 | 2.04                        | 0                             | 2               | 0       |
| Osmonton Arm            | CC08033 | 3.87                        | 0                             | 0               | 0       |
| Snake Lake              | CC08034 | 8.02                        | 0                             | 1               | 3       |
| Dans Pond               | CC08035 | 6.21                        | 3.58                          | 3               | 2       |
| Glenwood                | CC06001 | 2.52                        | 0                             | 2               | 0       |
| almon River             | CC06002 | 1.23                        | 2.83                          | 0               | 1       |
| unction                 | CC06003 | 1.88                        | 0                             | 1               | 0       |
| irant's Lake            | CC06005 | 1.43                        | 0                             | 0               | 1       |
| Scowett Pond            | CC06006 | 1.31                        | 0.82                          | 3               | 0       |

#### 9.1.4 Activities in Protected Water Supply Areas

Larger buffers are established inside PWSA, and the pertinent EPG's will be attached to any commercial or domestic permits issued for these areas. There will be continuous monitoring inside these areas and buffers will be flagged to ensure compliance with the guidelines. All activity within PPWSA must be approved by the Department of Environment, Conservation and Climate Change.

## SECTION 10 PLAN ADMINISTRATION

### 10.1 Monitoring

Monitoring planned activities is critical to ensure objectives and operations are carried out in a manner consistent with various guidelines and provincial and federal legislation. Monitoring occurs at the operational level and the planning level. Forest harvesting activity is regulated using a permitting system and all activities are inspected and monitored on the ground by conservation officers to ensure compliance with applicable legislation, cutting permit conditions, and Environmental Protection Guidelines. Permit holders and contractors are also subject to financial penalties if deviations occur.

### 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 Forestry, Agriculture & Lands, 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.
- 2) Externally, through the Department of Environment, Conservation and Climate Change. 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 1A – Commercial Overview Maps Districts 4, 5, 6 and 8

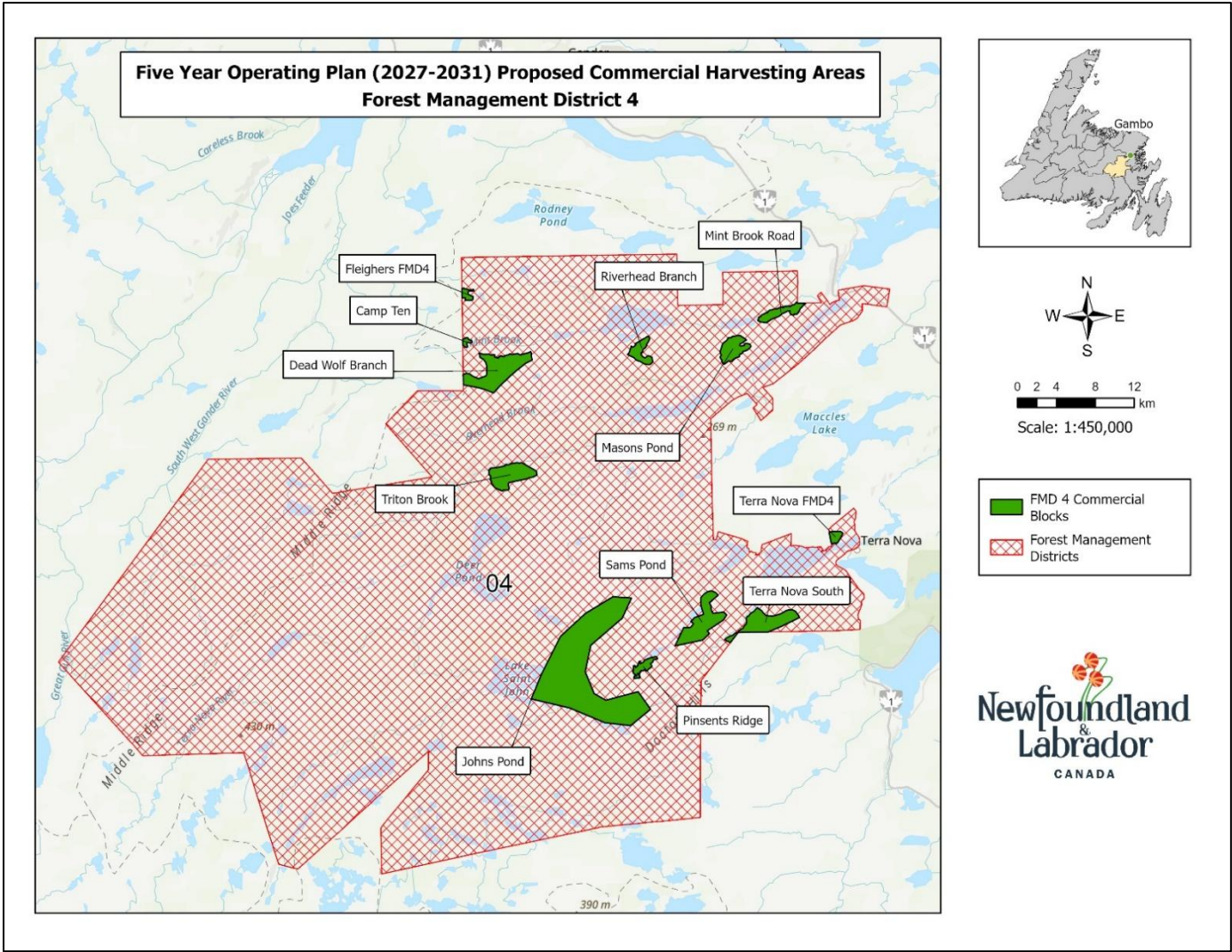


FIGURE 33: COMMERCIAL OVERVIEW MAP DISTRICT 4

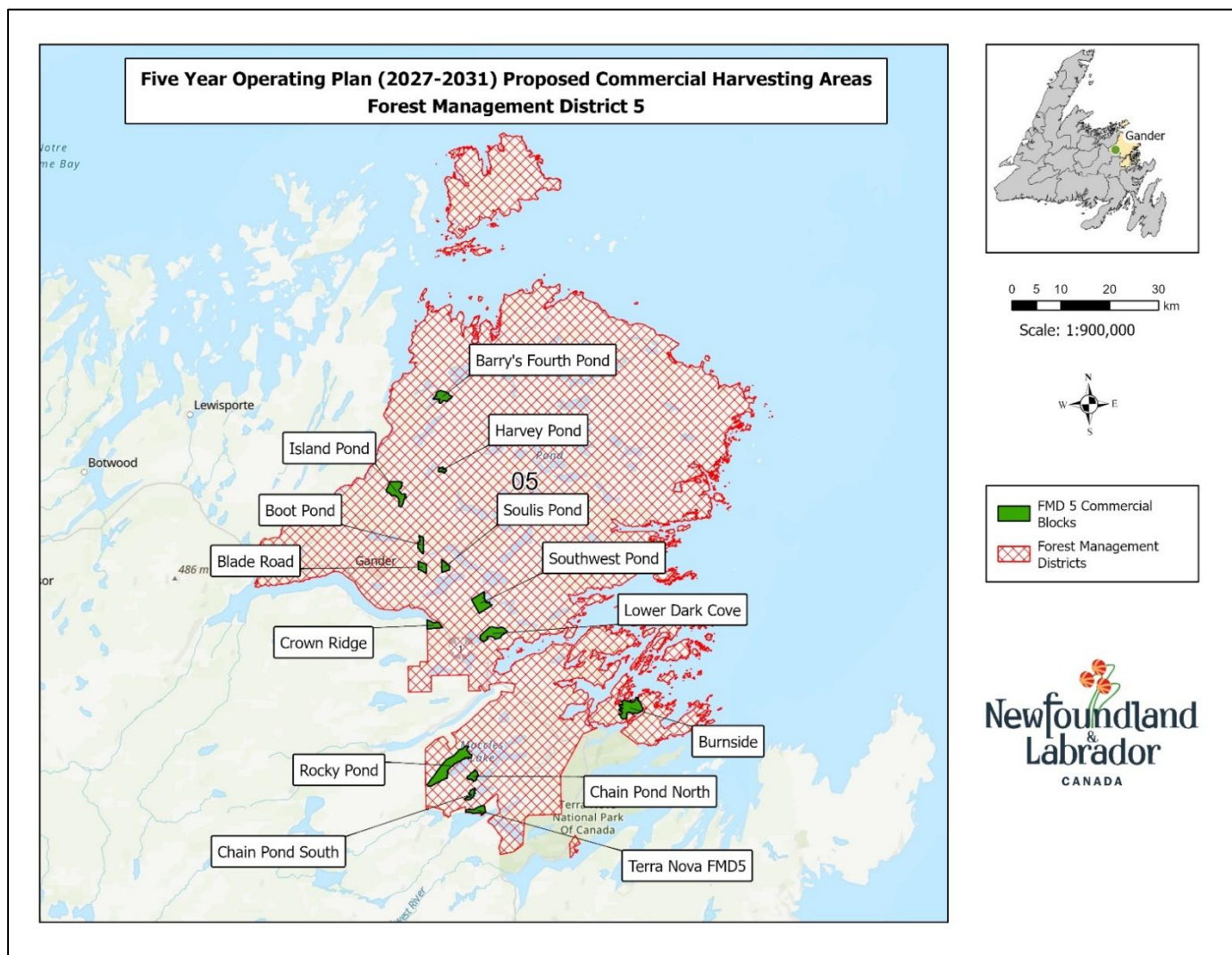


Figure 34: Commercial Overview Map District 5

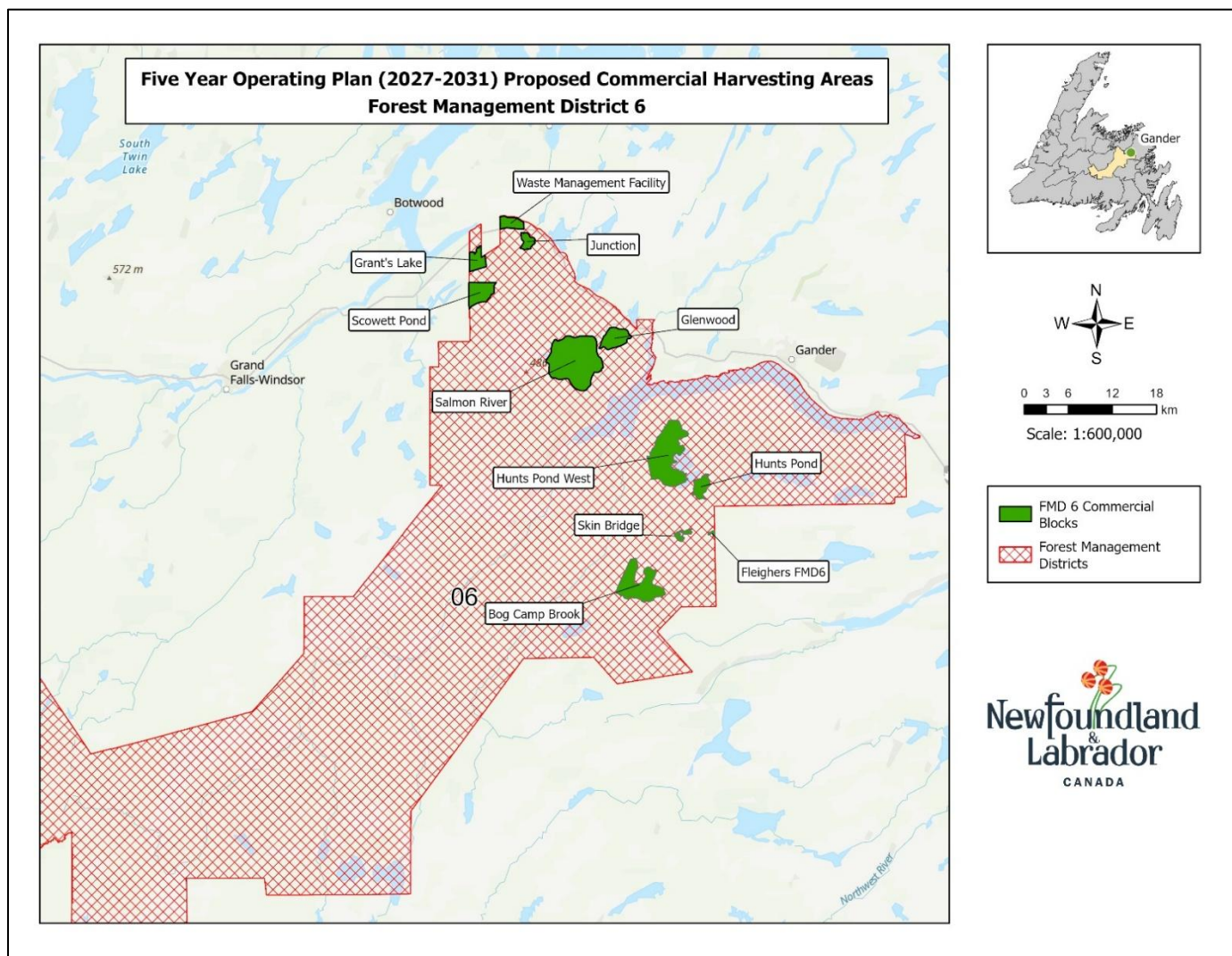


FIGURE 35: COMMERCIAL OVERVIEW MAP DISTRICT 6

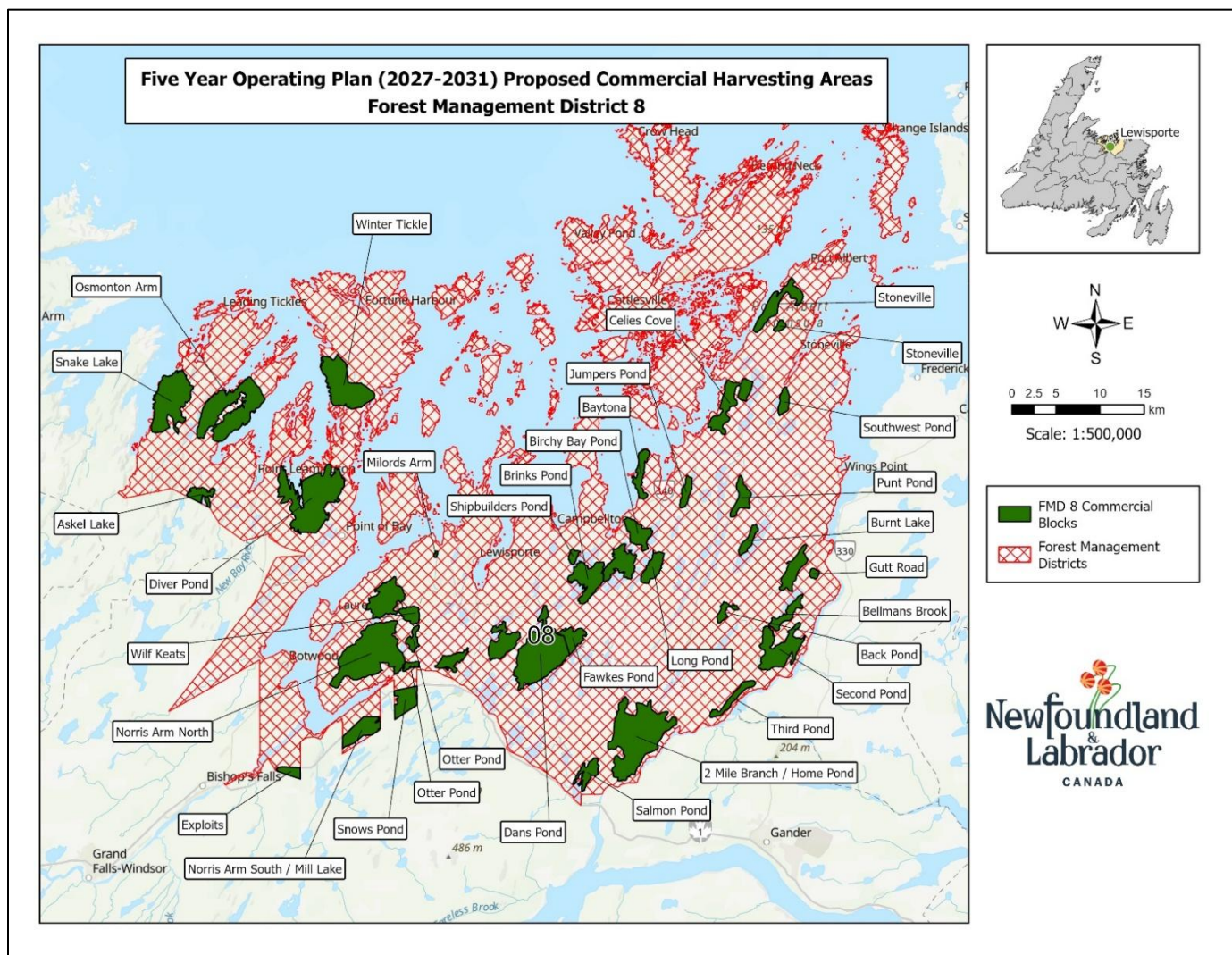


FIGURE 36: COMMERCIAL OVERVIEW MAP DISTRICT 8

Appendix 1B - Domestic Overview Map Districts 4, 5, 6 and 8

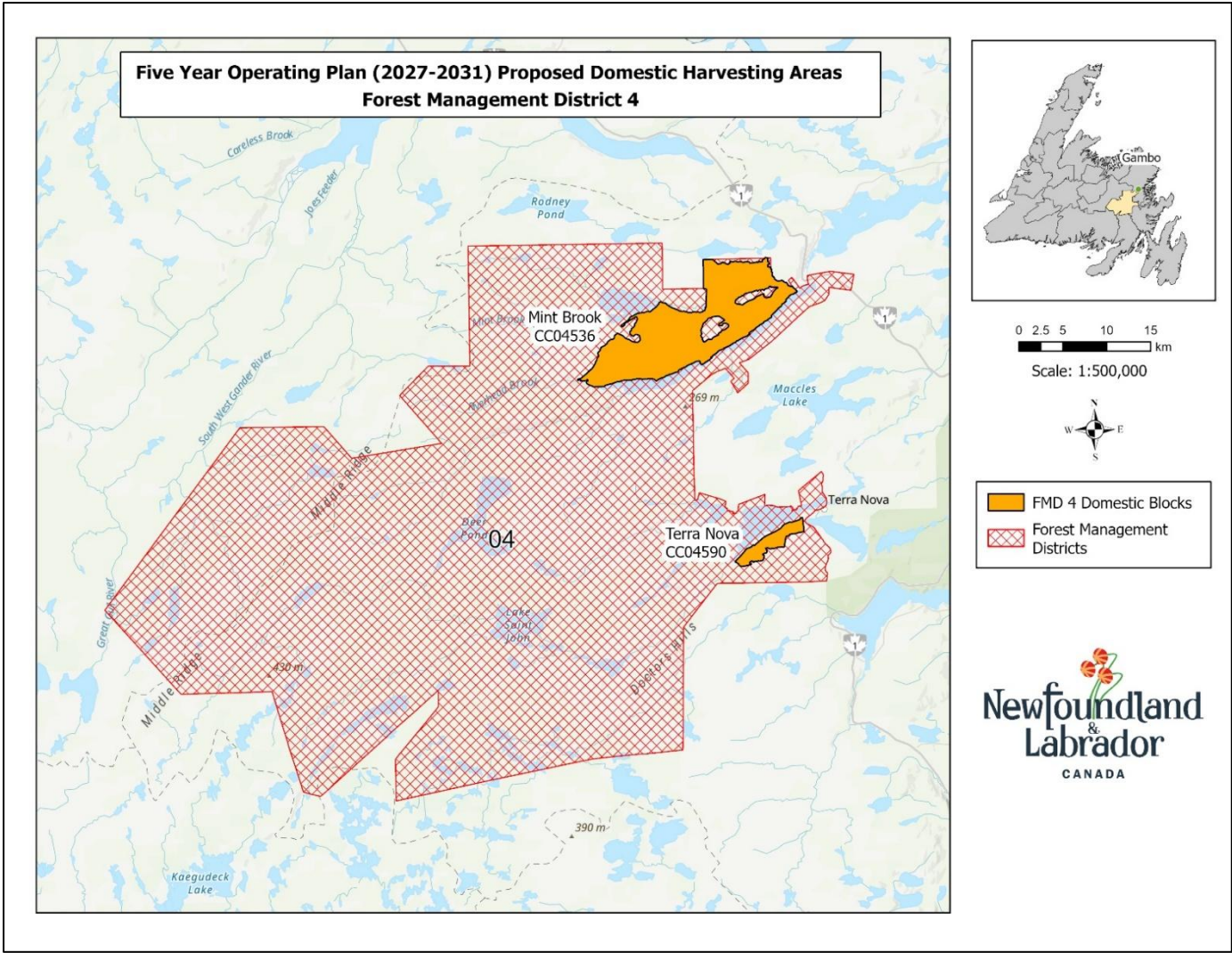


FIGURE 37: DOMESTIC OVERVIEW MAP DISTRICT 4

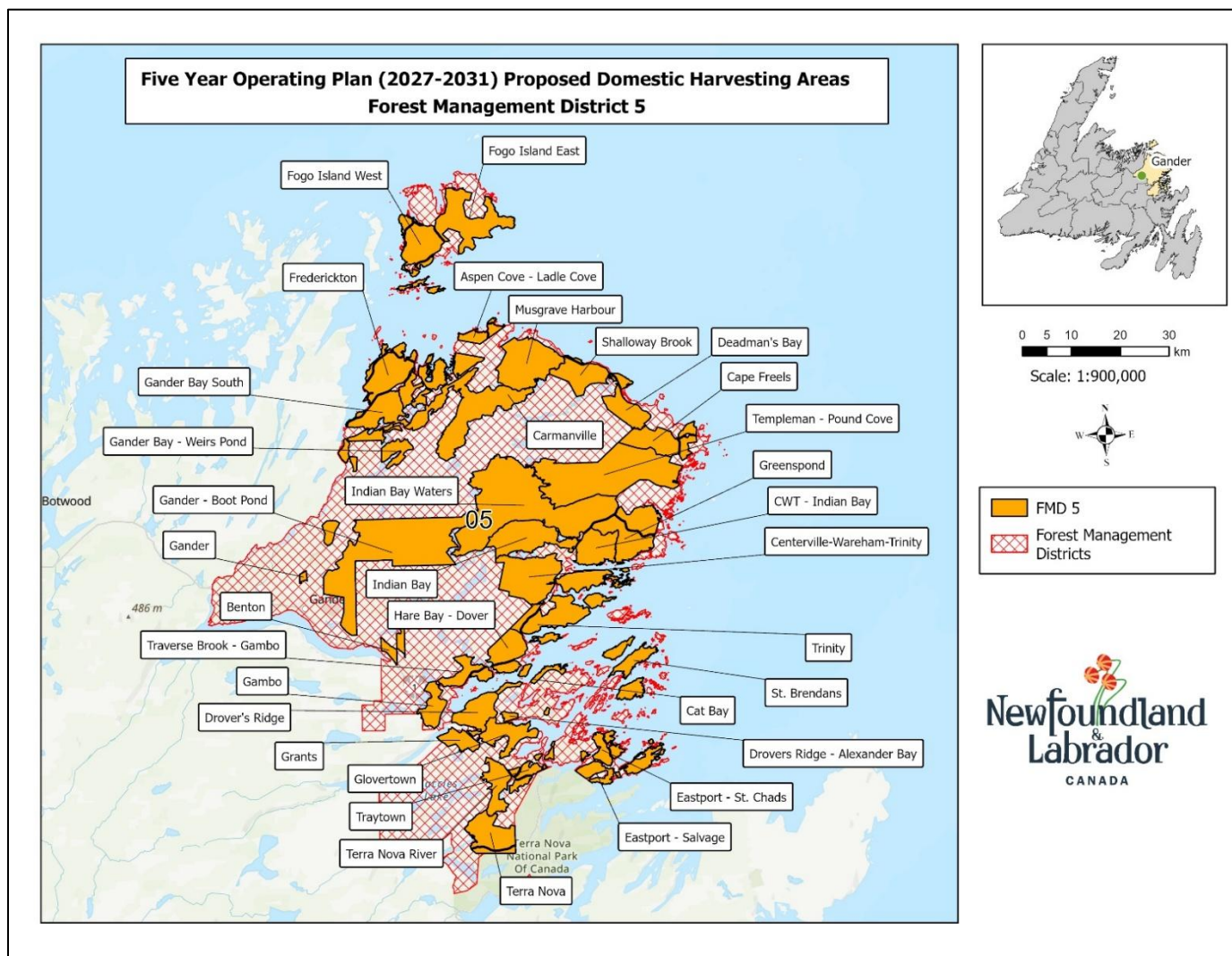


Figure 38: Domestic Overview Map District 5

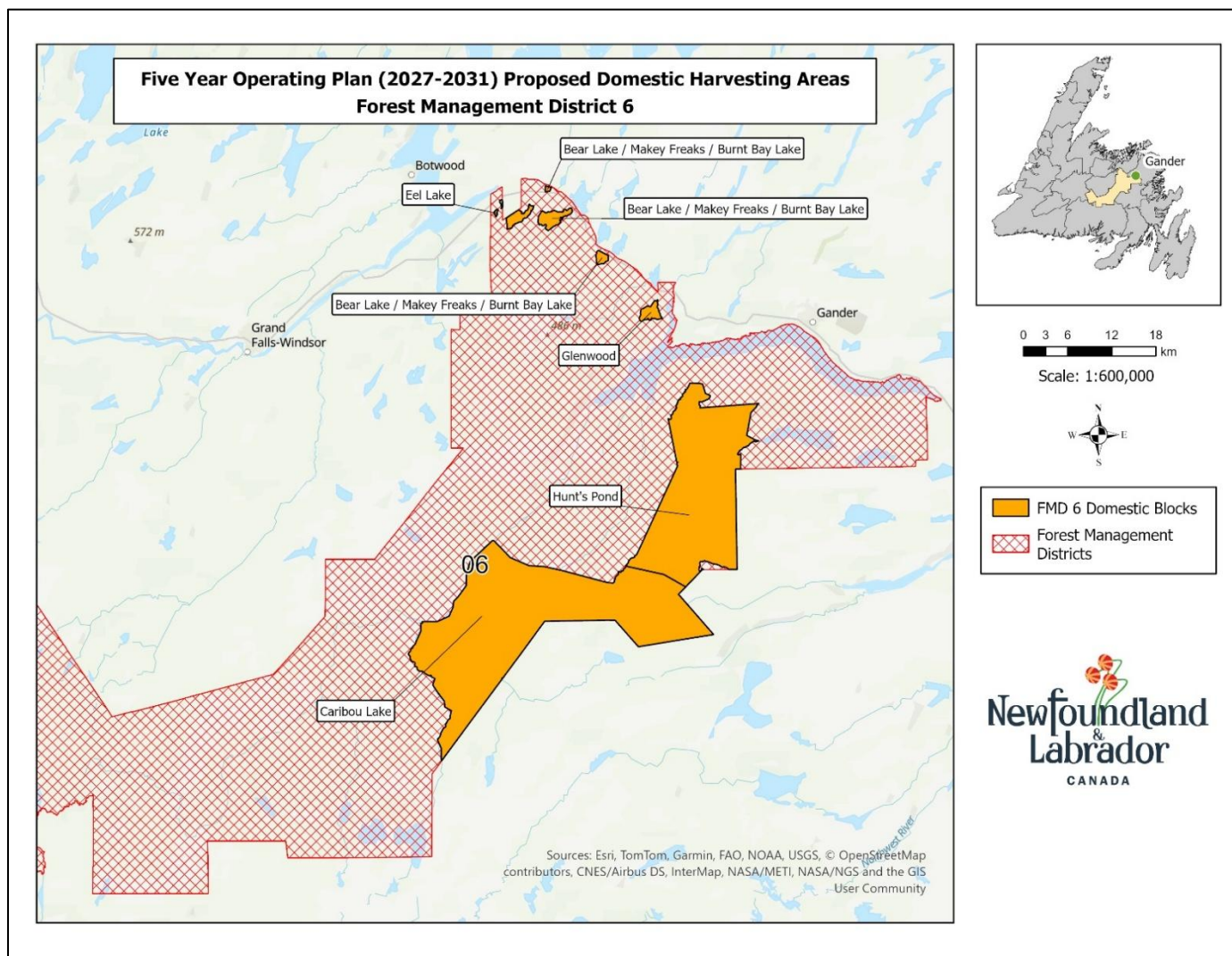


FIGURE 39: DOMESTIC OVERVIEW MAP DISTRICT 6

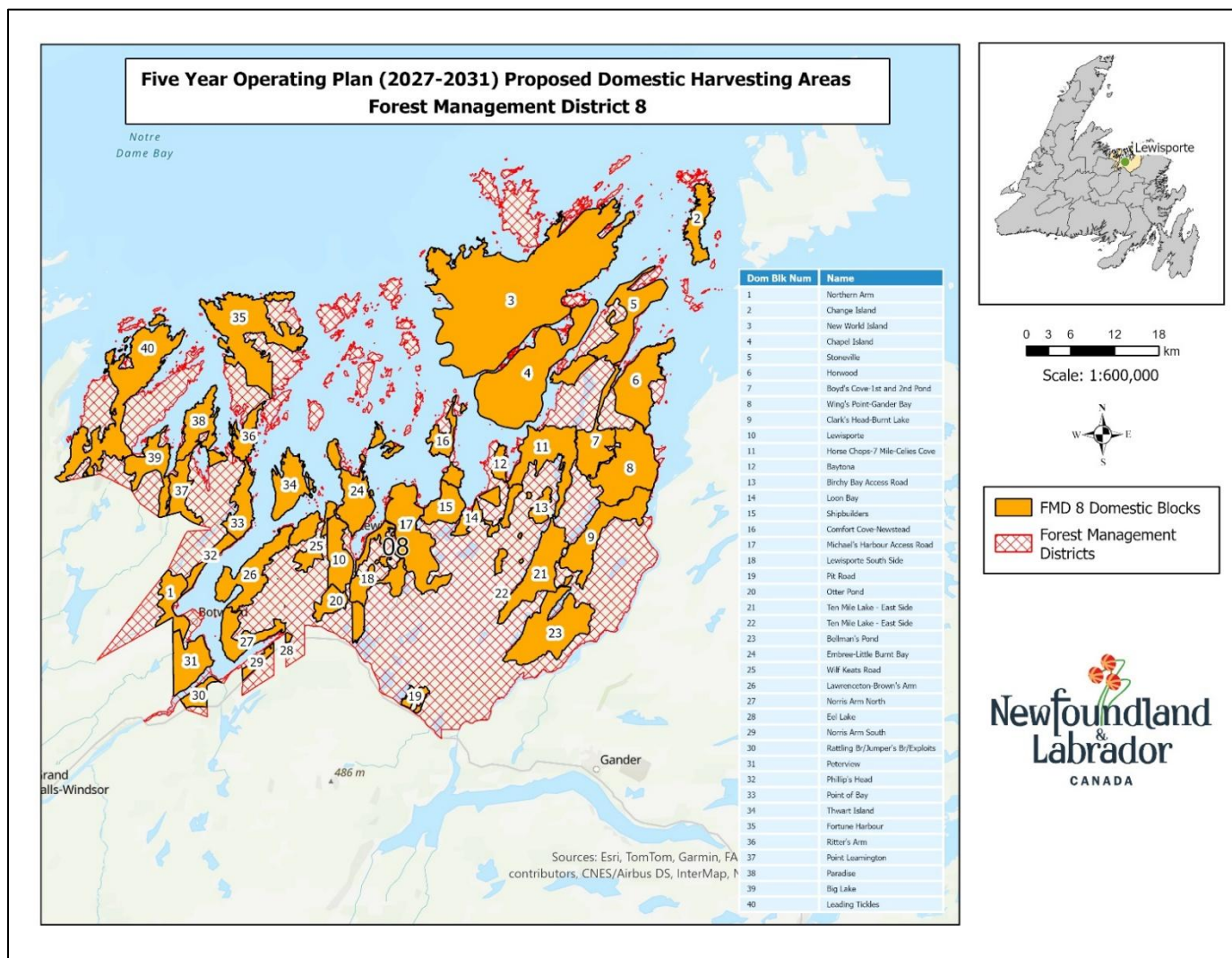


FIGURE 40: DOMESTIC OVERVIEW MAP DISTRICT 8

Appendix 1C - Roads Overview Map District 4, 5, 6, and 8

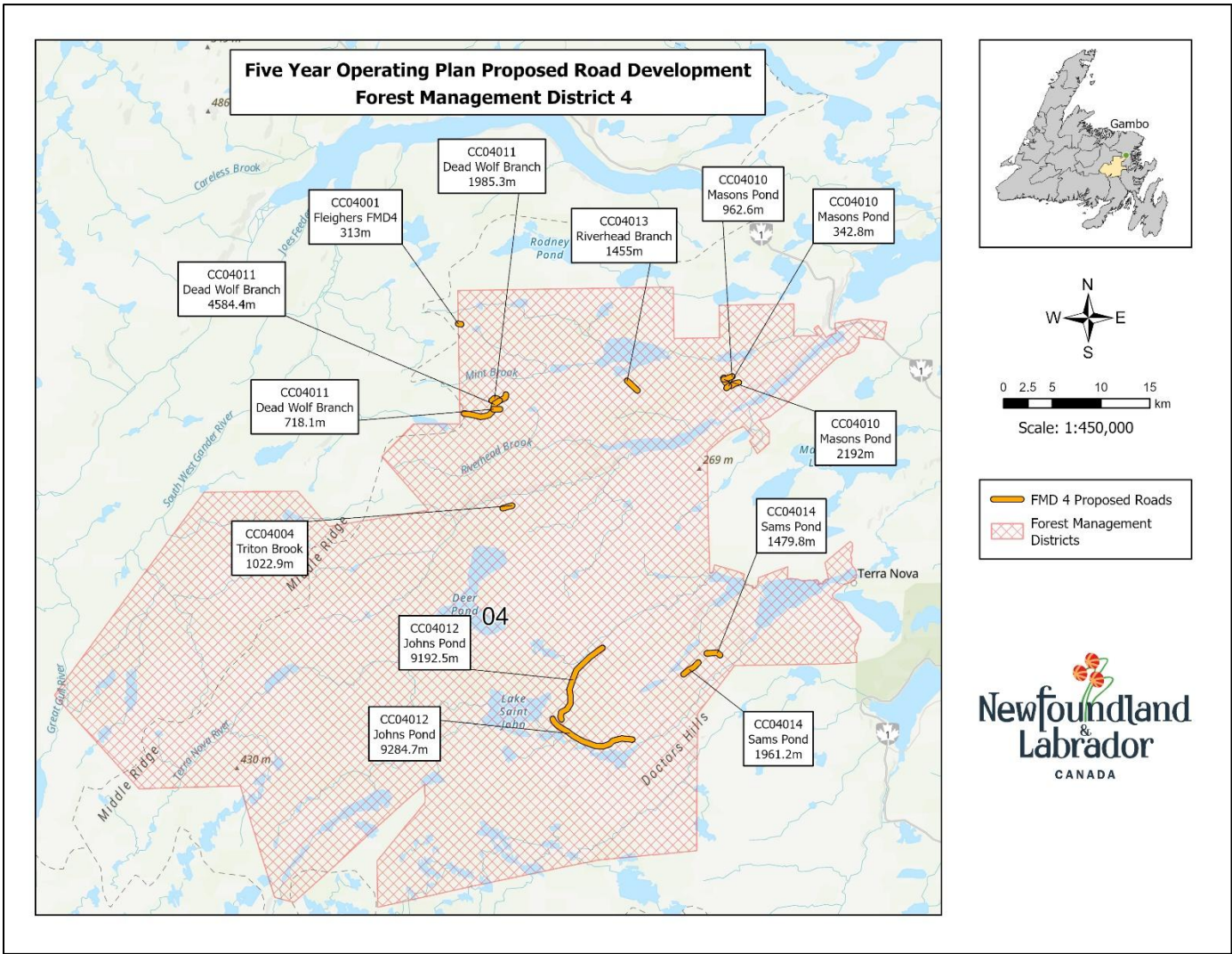


FIGURE 41: ROADS OVERVIEW MAP DISTRICT 4

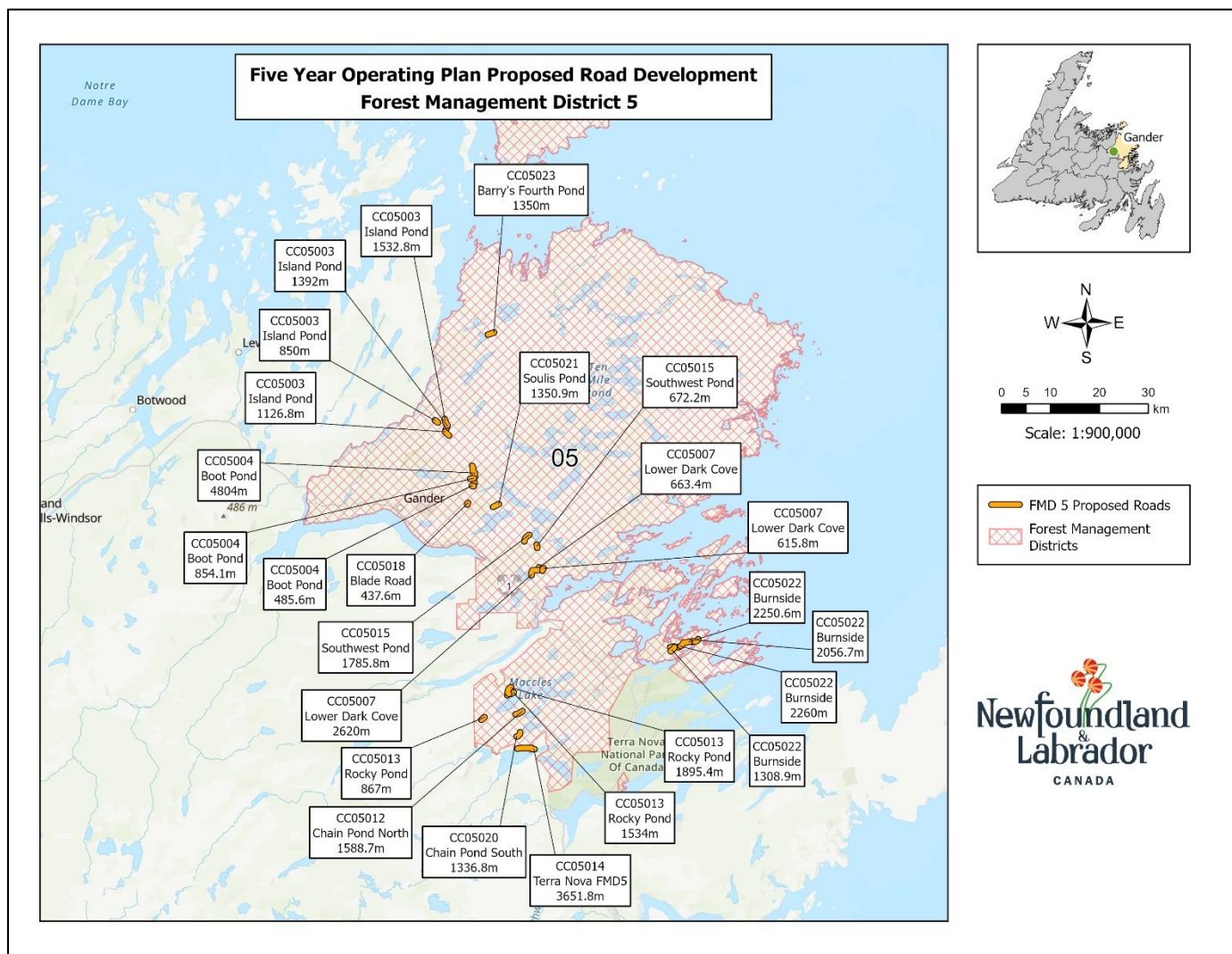


FIGURE 42: ROADS OVERVIEW MAP DISTRICT 5

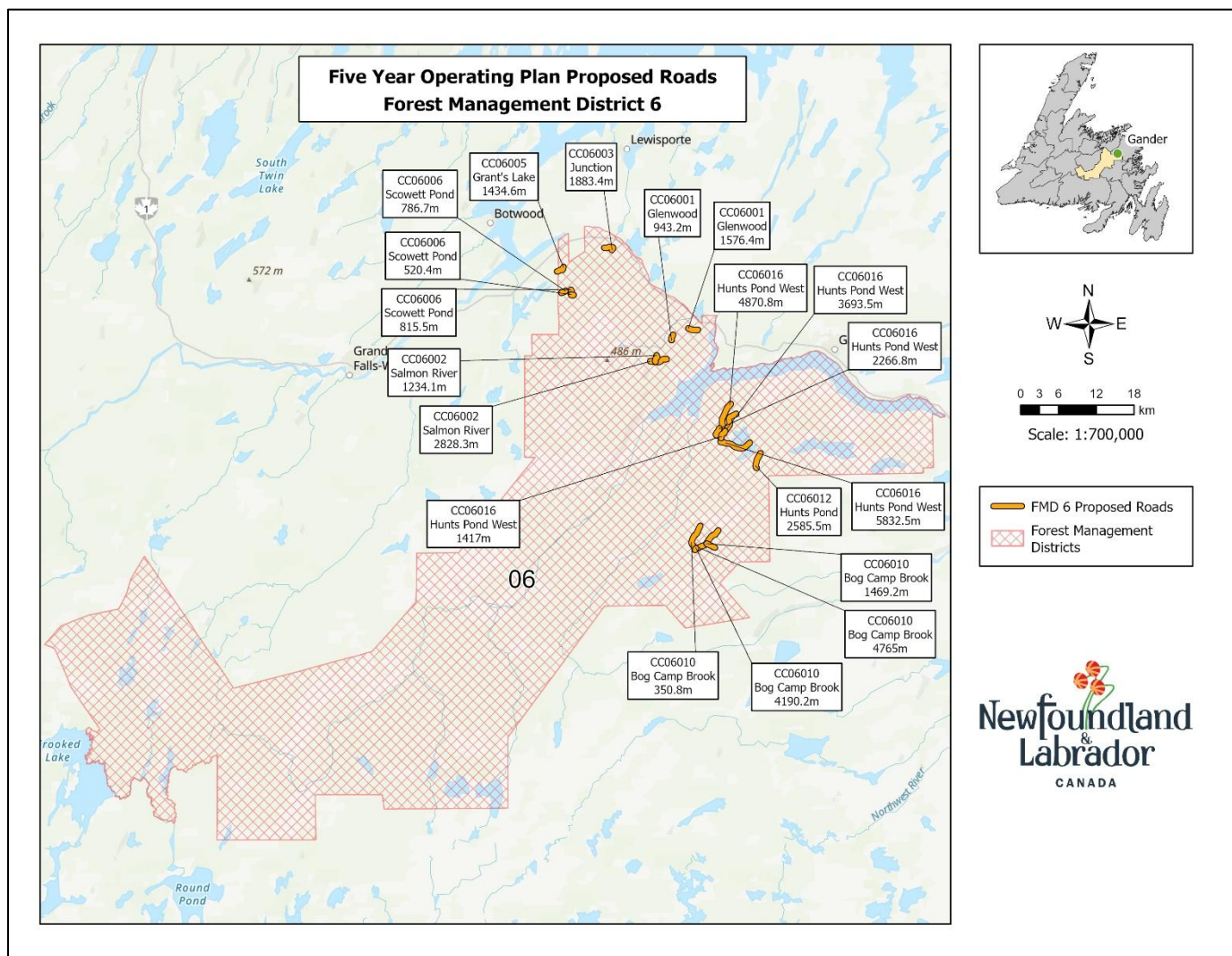
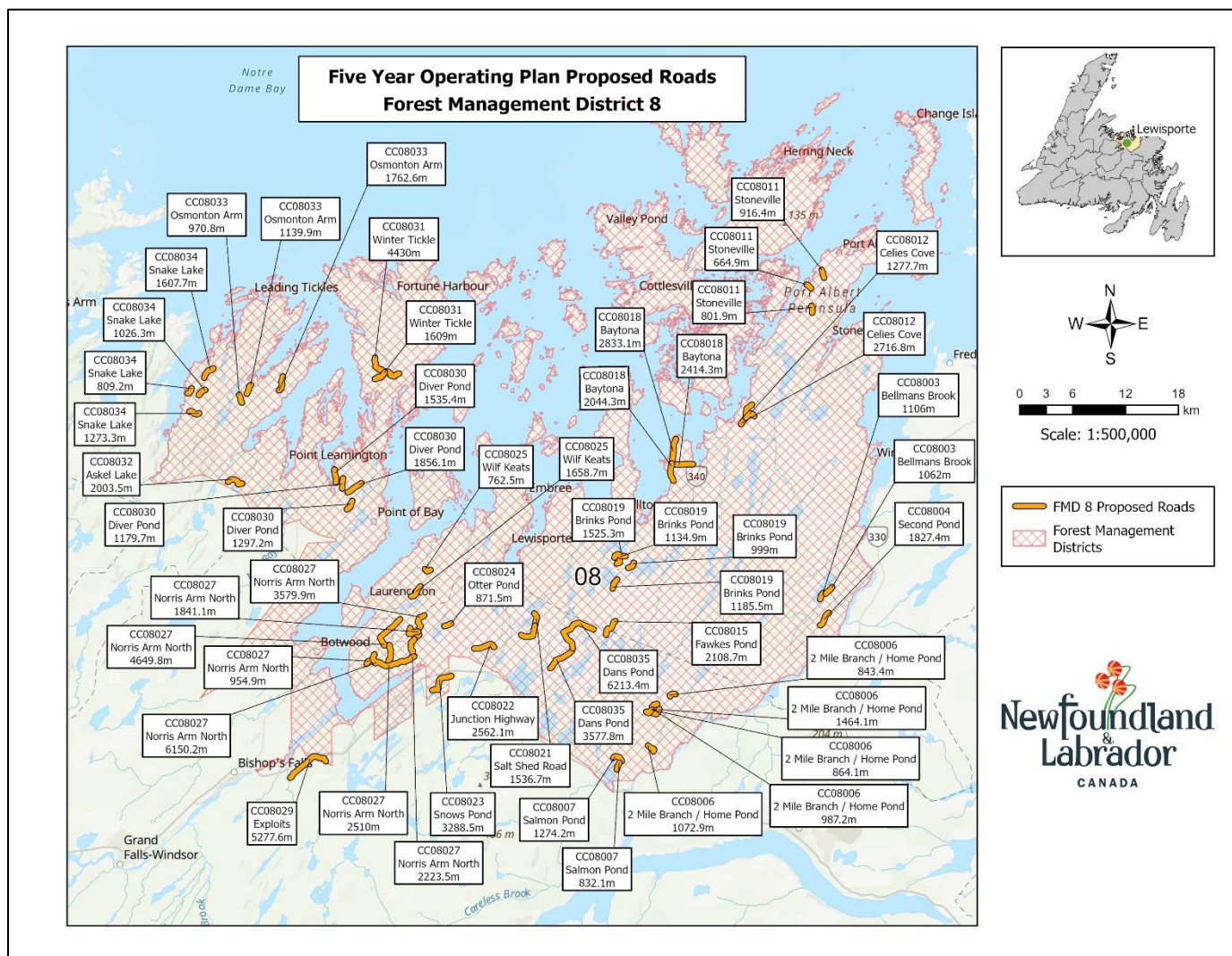


FIGURE 43: ROADS OVERVIEW MAP DISTRICT 6



Appendix 1D – Silviculture Overview Map Zone 3

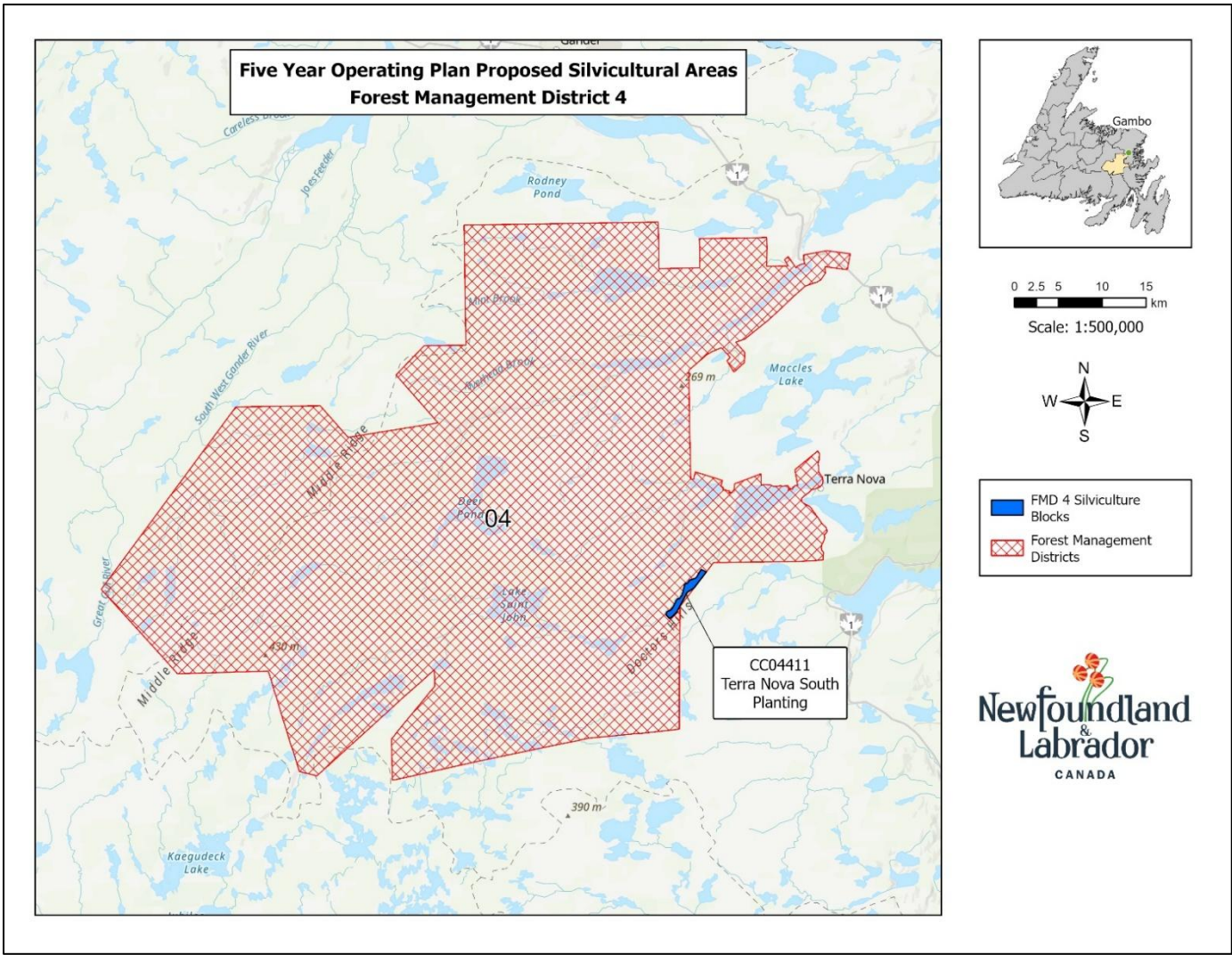


FIGURE 45: SILVICULTURE OVERVIEW DISTRICT 4

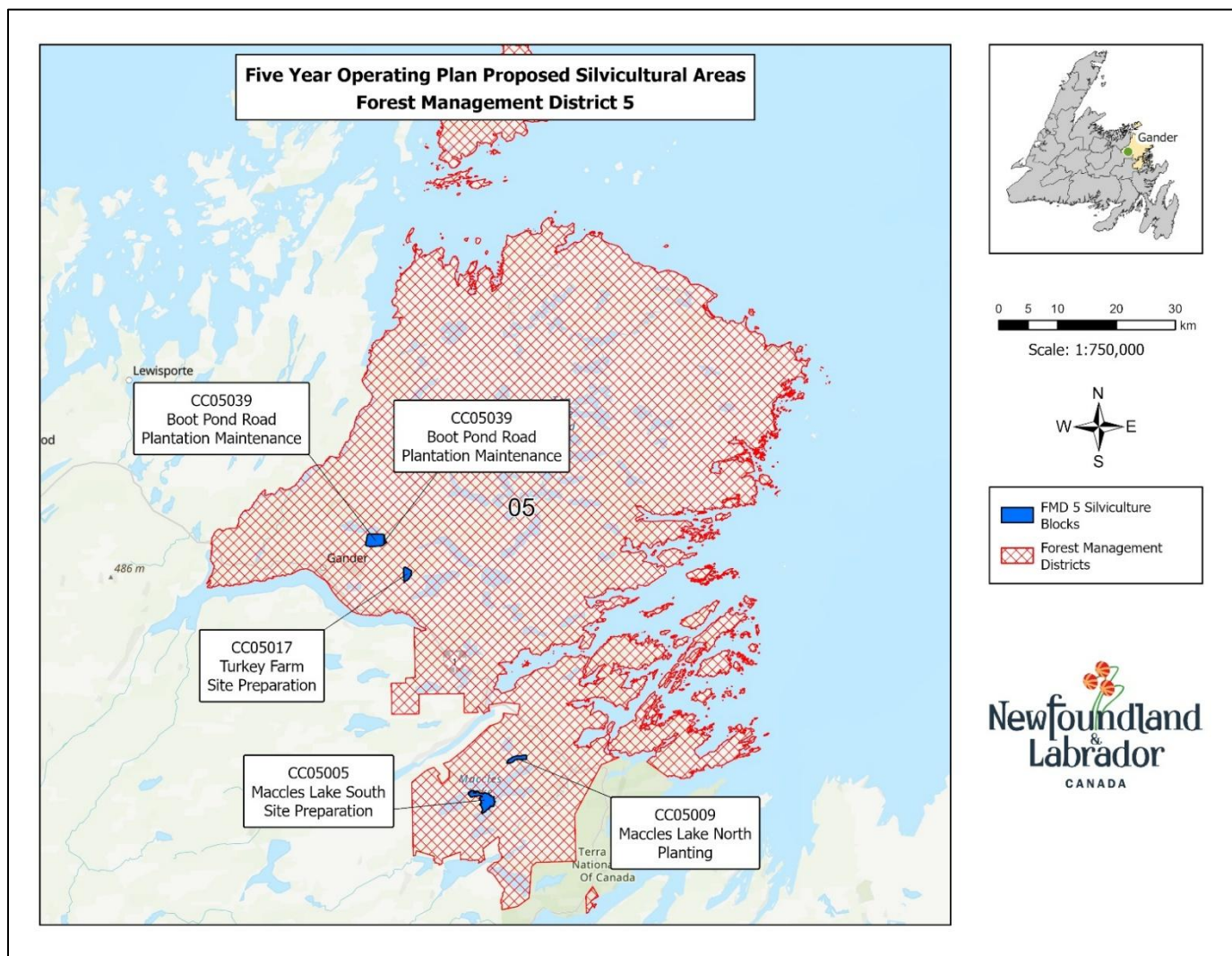


FIGURE 46: SILVICULTURE OVERVIEW DISTRICT 5

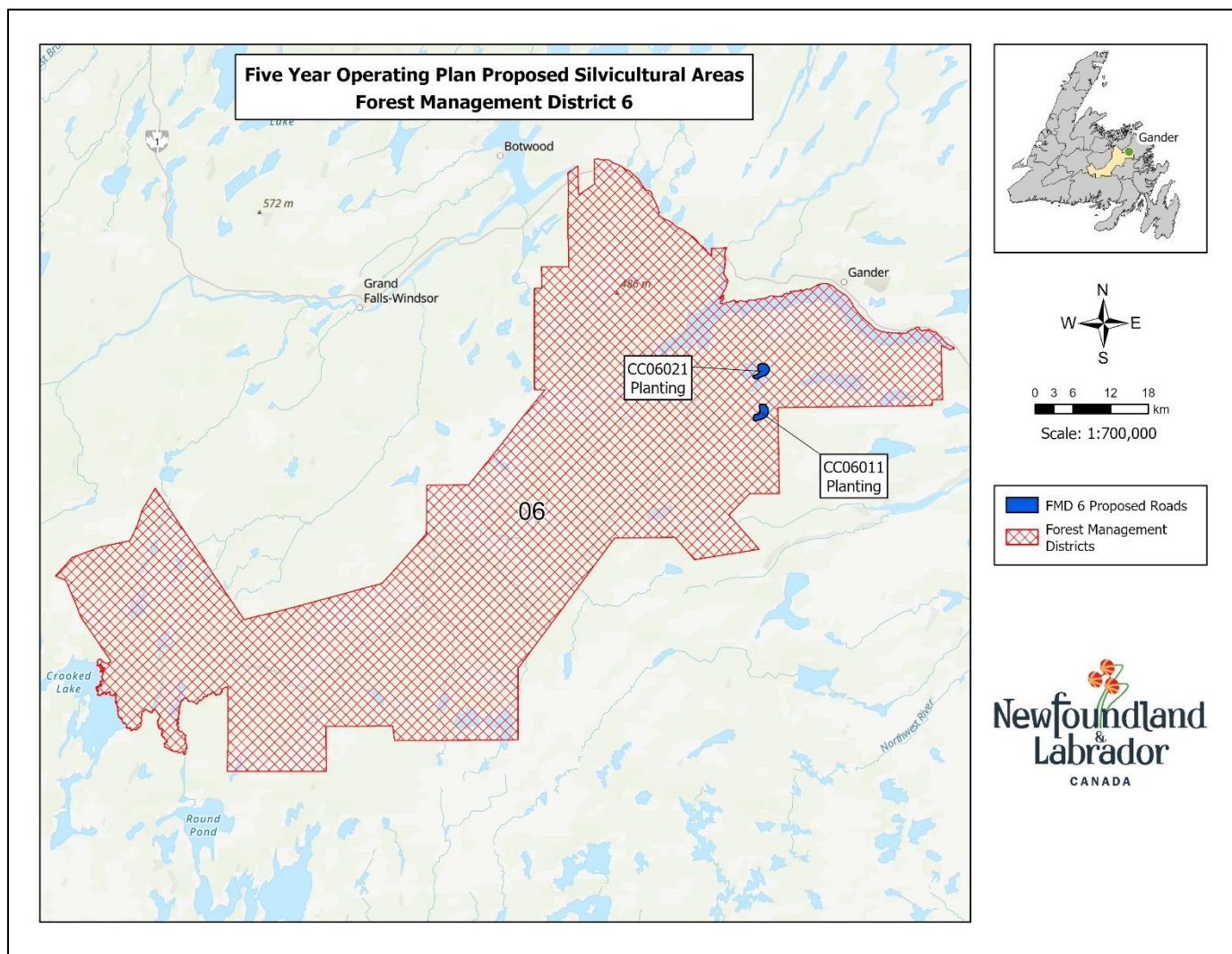


FIGURE 47: SILVICULTURE OVERVIEW DISTRICT 6

## Appendix 2A – Commercial Operating Areas District 4

**Operating Area Name:** Fleighers FMD4

**Operating Area Number:** CC04001

**NFS Inventory Map #:** 7712, 8942, 8943

**NTS Map #:** 2D/10 Dead Wolf Pond, 2D/15 Gander

**Description of Area:** This area of crown land is located in the Mint Brook Road network of FMD4. It can be accessed from the TCH (Route 1) at the Gambo turnoff via Mint Brook forest access road. It is located west of North Pond. The western boundary of this block forms the boundary between Forest Management Districts 6 and 4 and is shared with Fleighers FMD6 (CC06020). The terrain varies from gentle to rolling. The merchantable forest stands are comprised of 99% pure black spruce, and 1% pure balsam fir. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

---

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

**Inventory Softwood Volume:** 4297

**Inventory Hardwood Volume:** 67

**Proposed Softwood Volume:** 3000

**Proposed Hardwood Volume:** 50

**Percent Difference from Inventory to Proposed Volume:** 30

**Rationale for Difference:** Inventory / blocking adjustment from woodsupply calculations and operational criteria of age class 4 and greater with minimal 60 m<sup>3</sup>/ha and greater

---

**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**Primary Forest Access Road Construction:** No road is required to access the stands within this block however a 300m section of road may be required to be built through this block to access stands in FMD6.

**5 Year New Roads (km):** 0

**5 Year Reconstruction (km):** 0

**5 Year Stream Crossings:** None

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Camp Ten**

**Operating Area Number: CC04002**

**NFS Inventory Map #: 8942, 8943**

**NTS Map #: 2D/10 Dead Wolf Pond**

**Description of Area:** This area of crown land is located west of Gambo and is accessed from the TCH (Route 1) via the Mint Brook Forest Resource Road; it is located on the west side of North Pond and south of CC04001 (Fleighers). The district boundary between FMD4 and FMD6 is the western boundary of this block. The terrain varies from hilly to rocky. The merchantable forest stands are comprised of 100% pure black spruce. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

---

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

**Inventory Softwood Volume: 2480**

**Inventory Hardwood Volume: 136**

**Proposed Softwood Volume: 2000**

**Proposed Hardwood Volume: 100**

**Percent Difference from Inventory to Proposed Volume: 19**

**Rationale for Difference: Inventory adjustments and harvesting constraints**

---

**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**Primary Forest Access Road Construction: None**

**5 Year New Roads (km): 0**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Dead Wolf Road**

**Operating Area Number: CC04003**

**NFS Inventory Map #: 8932, 8943, 8933**

**NTS Map #: 2D/10 Dead Wolf Pond**

**Description of Area:** This area of crown land is located west of Gambo and is accessed from the TCH (Route 1) via the Mint Brook Forest Resource Road. It is located West of North Pond along the south side of Camp Ten Road. The terrain varies from relatively flat to some slope. The merchantable forest stands are comprised of 100% pure black spruce. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

---

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

**Inventory Softwood Volume: 41810**

**Inventory Hardwood Volume: 3054**

**Proposed Softwood Volume: 40000**

**Proposed Hardwood Volume: 2000**

**Percent Difference from Inventory to Proposed Volume: 4**

**Rationale for Difference: Inventory adjustments and harvesting constraints**

---

**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**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 Mines Branch.

**5 Year New Roads (km): 5.4000000000000004**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations:** No new road construction within 500 m of the Rodney Pond Reserve NASP

**Operating Area Name: Triton Brook**

**Operating Area Number: CC04004**

**NFS Inventory Map #: 8913, 8923**

**NTS Map #: 2D/10 Dead Wolf Pond**

**Description of Area:** This area of crown land is located west of Gambo and is accessed from the TCH (Route 1) via the Mint Brook Forest Resource Road and River Head Resource Road; it is located south of Triton Brook. The terrain varies from hilly to steep and rugged. The merchantable forest stands are comprised of 60% pure black spruce, 1% pure balsam fir, 9% white birch, 2% larch with 17% making up hardwood dominated mixed and 11% softwood dominated mixed. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

---

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

**Inventory Softwood Volume: 28385**

**Inventory Hardwood Volume: 2420**

**Proposed Softwood Volume: 28385**

**Proposed Hardwood Volume: 2000**

**Percent Difference from Inventory to Proposed Volume: 0**

**Rationale for Difference: Inventory adjustments and harvesting constraints**

---

**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**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 Mines Branch.

**5 Year New Roads (km): 1**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Riverhead Branch**

**Operating Area Number: CC04005**

**NFS Inventory Map #: 8934, 8944, 9031, 9041**

**NTS Map #: 2D/9 Glovertown, 2D/10 Dead Wolf Pond**

**Description of Area:** This area of crown land is located west of Gambo and is accessed from the TCH (Route 1) via the Mint Brook Forest Resource Road. It is located South of North Pond near the start of Riverhead Branch road. The terrain is relatively flat. The merchantable forest stands are comprised of 100% pure black spruce. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

---

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

**Inventory Softwood Volume: 11266**

**Inventory Hardwood Volume: 1150**

**Proposed Softwood Volume: 10000**

**Proposed Hardwood Volume: 1000**

**Percent Difference from Inventory to Proposed Volume: 11**

**Rationale for Difference:** Inventory adjustments and harvesting constraints.

---

**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**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 Mines Branch.

**5 Year New Roads (km): 1.5**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations:** All new road construction will occur starting at the boundary of the Rodney Pond Reserve NASP which is the existing Riverhead Resource Road and be constructed in the direction away from the NASP as to have a minimal impact on the NASP

**Operating Area Name: Mint Brook**

**Operating Area Number: CC04006**

**NFS Inventory Map #: 9042**

**NTS Map #: 2D/9 Glovertown**

**Description of Area:** This area of crown land is located west of Gambo and is accessed from the TCH (Route 1) via the Mint Brook Forest Resource Road. It is located North of Gambo Pond, between Masons Pond and Mint Brook Bridge along the Mint Brook Resources Road. The terrain is relatively flat with some scrub barrerns. The merchantable forest stands are comprised of 100% pure black spruce. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

---

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

**Inventory Softwood Volume: 12880**

**Inventory Hardwood Volume: 738**

**Proposed Softwood Volume: 12000**

**Proposed Hardwood Volume: 500**

**Percent Difference from Inventory to Proposed Volume: 7**

**Rationale for Difference: Inventory adjustments and harvesting constraints**

---

**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**Primary Forest Access Road Construction:** No road is required to access the stands within this block.

**5 Year New Roads (km): 0**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Terra Nova FMD4**

**Operating Area Number: CC04007**

**NFS Inventory Map #: 9012, 9013**

**NTS Map #: 2D/9 Glovertown**

**Description of Area:** This area of crown land is located just east of the community of Terra Nova across the river. It is accessed from the TCH (Route 1) from Alexander Bay Station near Glovertown Overpass. Travel the T'railway approximately 26 km to the pole line. Access from the T'railway would require permits from Parks NL to travel along the T'railway and would have to be during summer months to avoid conflicts with NLSF. District boundary of FMD 4 and 5 runs through the middle of this block splitting it between the two districts.

---

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

**Inventory Softwood Volume: 2226**

**Inventory Hardwood Volume: 245**

**Proposed Softwood Volume: 2000**

**Proposed Hardwood Volume: 100**

**Percent Difference from Inventory to Proposed Volume: 10**

**Rationale for Difference: Inventory adjustments and harvesting constraints**

---

**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**Primary Forest Access Road Construction: None**

**5 Year New Roads (km): 0**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations: NLSF. No cutting within 105m of the shoreline of Terra Nova Lake.**

**Operating Area Name: Masons Pond**

**Operating Area Number: CC04010**

**NFS Inventory Map #: 9031, 9032, 9041, 9042**

**NTS Map #: 2D/9 Glovertown**

**Description of Area:** This area of crown land is located west of Gambo and is accessed from the TCH (Route 1) via the Mint Brook Forest Resource Road. It is located North side of Gambo Pond. The terrain varies from hilly to rocky with substantial side slope. The merchantable forest stands are comprised of 100% pure black spruce. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

---

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

**Inventory Softwood Volume: 15665**

**Inventory Hardwood Volume: 714**

**Proposed Softwood Volume: 15000**

**Proposed Hardwood Volume: 500**

**Percent Difference from Inventory to Proposed Volume: 4**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

---

**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**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 Mines Branch. **Length of Proposed Road: 3.5km**

**5 Year New Roads (km): 3.5**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations:** An appropriate buffer will be maintained around the Permanent sample plot located in the northern portion of this operating area.

**Operating Area Name: Terra Nova South**

**Operating Area Number: CC04011**

**NFS Inventory Map #:**

**NTS Map #: 2D/103**

**Description of Area:** Terra Nova South operating area is located approximately 11.5 km southwest of Terra Nova accessible from the NALCOR Transmission Line via Terra Nova Resource Road. Forest cover within the area is discontinuous, with extensive young regeneration distributed throughout much of the site. The area is predominantly forested with mature to overmature black spruce stands, interspersed with marshland areas and is characterized by its moderate slopes.

---

**Harvesting Activities:** Commercial activity will include sawlog and fuelwood harvesting using mechanical harvesters or chainsaws with extraction by forwarder, snowmobile or ATV.

**Inventory Softwood Volume: 14948**

**Inventory Hardwood Volume: 4004**

**Proposed Softwood Volume: 10421**

**Proposed Hardwood Volume: 474**

**Percent Difference from Inventory to Proposed Volume: 30**

**Rationale for Difference:** Inventory / blocking adjustment from wood supply calculations and operational criteria of age class 4 and greater with minimal 60 m<sup>3</sup>/ha and greater

---

**Silviculture Activities:** Regeneration surveys will be carried out on areas harvested and silviculture prescriptions will be determined once assessments have been completed. Areas of degraded or windthrown stands will be considered for gap planting.

---

**Primary Forest Access Road Construction:** No new construction

**5 Year New Roads (km):**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings:** n/a

**Non-Timber Considerations and Mitigations:** Waterbodies: A minimum 30 meter buffer will be maintained on both sides of all rivers, brooks, ponds or other water bodies are shown on 1:50,000 Topographic maps.

**Cottage Area:** There will be no cutting within 100 meters of a designated cabin development

**Operating Area Name: Johns Pond**

**Operating Area Number: CC04012**

**NFS Inventory Map #:**

**NTS Map #: 2D/103**

**Description of Area:** Johns Pond operating area is located approximately 31 km southwest of Terra Nova and is accessed via the Terra Nova Resource Road. The area is predominantly forested by mature black spruce stands and is characterized by wet terrain conditions, which present challenges for stand accessibility.

---

**Harvesting Activities:** Commercial activity will include sawlog and fuelwood harvesting using mechanical harvesters or chainsaws with extraction by forwarder, snowmobile or ATV.

**Inventory Softwood Volume: 174866**

**Inventory Hardwood Volume: 11835**

**Proposed Softwood Volume: 145830**

**Proposed Hardwood Volume: 7184**

**Percent Difference from Inventory to Proposed Volume: 17**

**Rationale for Difference:** Inventory / blocking adjustment from wood supply calculations and operational criteria of age class 4 and greater with minimal 60 m<sup>3</sup>/ha and greater

---

**Silviculture Activities:** Regeneration surveys will be carried out on areas harvested and silviculture prescriptions will be determined once assessments have been completed. Areas of degraded or windthrown stands will be considered for gap planting.

---

**Primary Forest Access Road Construction: 18.4 km New Construction. (Class C-1)**

**5 Year New Roads (km):**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 3 Culverts. 1 Bridge**

**Non-Timber Considerations and Mitigations: Waterbodies:** A minimum 30 meter buffer will be maintained on both sides of all rivers, brooks, ponds or other water bodies are shown on 1:50,000 Topographic maps.

**Cottage Area:** There will be no cutting within 100 meters of a designated cabin development

**Operating Area Name: Sams Pond**

**Operating Area Number: CC04014**

**NFS Inventory Map #:**

**NTS Map #: 2D/103**

**Description of Area:** Sams Pond operating area is located approximately 12 km west of Terra Nova and is accessible from the NALCOR Transmission Line via the Terra Nova Resource Road. The area contains sections affected by wildlife and extensive young regeneration. Forest cover is predominantly comprised of mature to overmature black spruce stands, with the landscape characterized by rugged terrain and moderate slopes.

---

**Harvesting Activities:** Commercial activity will include sawlog and fuelwood harvesting using mechanical harvesters or chainsaws with extraction by forwarder, snowmobile or ATV.

**Inventory Softwood Volume: 38960**

**Inventory Hardwood Volume: 5558**

**Proposed Softwood Volume: 34986**

**Proposed Hardwood Volume: 2860**

**Percent Difference from Inventory to Proposed Volume: 10**

**Rationale for Difference:** Inventory / blocking adjustment from wood supply calculations and operational criteria of age class 4 and greater with minimal 60 m<sup>3</sup>/ha and greater

---

**Silviculture Activities:** Regeneration surveys will be carried out on areas harvested and silviculture prescriptions will be determined once assessments have been completed. Areas of degraded or windthrown stands will be considered for gap planting.

---

**Primary Forest Access Road Construction: 3.4 km New Construction**

**5 Year New Roads (km):**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 2 Culverts**

**Non-Timber Considerations and Mitigations: Waterbodies:** A minimum 30 meter buffer will be maintained on both sides of all rivers, brooks, ponds or other water bodies are shown on 1:50,000 Topographic maps.

**Cottage Area:** There will be no cutting within 100 meters of a designated cabin development

**Operating Area Name: Pinsents Ridge**

**Operating Area Number: CC04015**

**NFS Inventory Map #:**

**NTS Map #: 2D/103**

**Description of Area:** Pinsents Ridge operating area is located approximately 21 km southwest of Terra Nova and is accessed via the Terra Nova Resource Road. Forest cover within this area is predominately continuous overmature black spruce. It is characterized by moderate slopes and wet terrain.

---

**Harvesting Activities:** Commercial activity will include sawlog and fuelwood harvesting using mechanical harvesters or chainsaws with extraction by forwarder, snowmobile or ATV.

**Inventory Softwood Volume: 11115**

**Inventory Hardwood Volume: 814**

**Proposed Softwood Volume: 9192**

**Proposed Hardwood Volume: 374**

**Percent Difference from Inventory to Proposed Volume: 17**

**Rationale for Difference:** Inventory / blocking adjustment from wood supply calculations and operational criteria of age class 4 and greater with minimal 60 m<sup>3</sup>/ha and greater

---

**Silviculture Activities:** Regeneration surveys will be carried out on areas harvested and silviculture prescriptions will be determined once assessments have been completed. Areas of degraded or windthrown stands will be considered for gap planting.

---

**Primary Forest Access Road Construction: No new construction**

**5 Year New Roads (km):**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: n/a**

**Non-Timber Considerations and Mitigations: Waterbodies:** A minimum 30 meter buffer will be maintained on both sides of all rivers, brooks, ponds or other water bodies are shown on 1:50,000 Topographic maps.

**Cottage Area:** There will be no cutting within 100 meters of a designated cabin development

## Appendix 2B – Commercial Operating Areas District 5

**Operating Area Name:** Harvey Pond

**Operating Area Number:** CC05001

**NFS Inventory Map #:** 6632

**NTS Map #:** 2E/1 Weirs Pond

**Description of Area:** This area of crown land is located on the western side of Bonavista North; it is accessed from Route 330 (Gander Bay Road) via the Boot Pond Resource Road. It is located approximately 33kms in the Boot Pond Resource Road. The terrain varies from rolling with some rocky outcrops. The merchantable forest stands are comprised of 93% back spruce, with 2% softwood dominated mixed and 5% hardwood dominated mixed. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

---

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

**Inventory Softwood Volume:** 7532

**Inventory Hardwood Volume:** 216

**Proposed Softwood Volume:** 7000

**Proposed Hardwood Volume:** 100

**Percent Difference from Inventory to Proposed Volume:** 7

**Rationale for Difference:** Inventory adjustments and harvesting constraints

---

**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**Primary Forest Access Road Construction:** No road is required to access the stands within this block.

**5 Year New Roads (km):** 0

**5 Year Reconstruction (km):** 0

**5 Year Stream Crossings:** None

**Non-Timber Considerations and Mitigations:** This area overlaps with the Indian Bay Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Operating Area Name:** Island Pond

**Operating Area Number:** CC05003

**NFS Inventory Map #:** 6524, 6621

**NTS Map #:** 2E/1 Weirs Pond, 2/E2 Gander River

**Description of Area:** This area of crown land is located on the western side of Bonavista North; it is accessed from Route 330 (Gander Bay Road) via the Island Pond Resource Road to the North. It is located around Island Pond on the eastern side of the Gander Bay Highway. The terrain varies from rolling to flat. The merchantable forest stands are comprised of 98% back spruce with hardwood dominated mixed making up 1%. Pure white birch stands make up 1%. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

---

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

**Inventory Softwood Volume:** 29582

**Inventory Hardwood Volume:** 984

**Proposed Softwood Volume:** 25000

**Proposed Hardwood Volume:** 500

**Percent Difference from Inventory to Proposed Volume:** 15

**Rationale for Difference:** Inventory adjustments and harvesting constraints

---

**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km):** 5

**5 Year Reconstruction (km):** 0

**5 Year Stream Crossings:** 1 -2000mm Culvert

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Boot Pond**

**Operating Area Number: CC05004**

**NFS Inventory Map #: 6611, 7841**

**NTS Map #: 2E/1 Weirs Pond, 2/D16 Gambo**

**Description of Area:** This area of crown land is located on the western side of Bonavista North; it is accessed from Gander Bay Road via the Boot Pond Resource Road. It is located EAST of the Gander Bay Highway. The terrain varies from rolling to rocky. The merchantable forest stands are comprised of 79% pure black spruce, 9% pure white birch with 8% softwood dominated mixed and 4 % hardwood dominated mixed. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

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

**Inventory Softwood Volume: 8579**

**Inventory Hardwood Volume: 567**

**Proposed Softwood Volume: 8000**

**Proposed Hardwood Volume: 300**

**Percent Difference from Inventory to Proposed Volume: 7**

**Rationale for Difference: Inventory adjustments and harvesting constraints**

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**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 1.3500000000000001**

**5 Year Reconstruction (km): 4.7999999999999998**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Maccles Lake**

**Operating Area Number: CC05005**

**NFS Inventory Map #: 9022, 9023**

**NTS Map #: 2D/9 Glovertown**

**Description of Area:** This area of crown land is located south of Glovertown; it is accessed from the TCH (Route 1) via Alexander Bay Station. Access to the Maccles Lake Resource Road is via the Newfoundland T'railway, therefore it would require permits from Parks NL to travel along the T'railway and would have to be during summer months to avoid conflicts with NLSF. The terrain varies from rolling to hilly with moderate slope. The merchantable forest stands are comprised of 97% pure black spruce, with hardwood dominated mixed making up 3%. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

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**Harvesting Activities:** Silviculture Area. No commercial harvesting planned for 2027-2031 as the area was harvested in 2025 and 2026.

**Inventory Softwood Volume: 0**

**Inventory Hardwood Volume: 0**

**Proposed Softwood Volume: 0**

**Proposed Hardwood Volume: 0**

**Percent Difference from Inventory to Proposed Volume: 0**

**Rationale for Difference: Inventory adjustments and harvesting constraints**

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**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

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**Primary Forest Access Road Construction:** No road is required to access the stands within this block.

**5 Year New Roads (km): 0**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Lower Dark Cove**

**Operating Area Number: CC05007**

**NFS Inventory Map #: 7822, 7823**

**NTS Map #: 2/D16 Gambo**

**Description of Area:** This area of crown land is located in Eastern side of Bonavista North; near the Town of Gambo. It is accessed from Route 320 via the Lower Dark Cove Resource Road. It is located on the eastern side of Butts Pond. The terrain varies from rolling to Rocky. The merchantable forest stands are comprised of 68% pure black spruce with 20% softwood dominated mixed and 11% hardwood dominated mixed. Pure white birch stands make up 1%. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvester with extraction by forwarder. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 24703**

**Inventory Hardwood Volume: 2802**

**Proposed Softwood Volume: 18000**

**Proposed Hardwood Volume: 2000**

**Percent Difference from Inventory to Proposed Volume: 27**

**Rationale for Difference: Inventory adjustments and harvesting constraints**

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**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

**SILVICULTURE AREA**

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**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 Mines Branch.

**5 Year New Roads (km): 4**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Maccles Lakes North**

**Operating Area Number: CC05009**

**NFS Inventory Map #: 9033**

**NTS Map #: 2D/9 Glovertown**

**Description of Area:** This area of crown land is located southwest of Glovertown; it is accessed from the TCH (Route 1). It is located on the northern side of Maccles Lake. The terrain varies from hilly to rolling. This area was harvested during 2022-2026 FYOP and is scheduled to be silviculturally treated during 2027-2031. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

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**Harvesting Activities:** No harvesting activities are planned for this area during this FYOP. Silviculture Only.

**Inventory Softwood Volume: 0**

**Inventory Hardwood Volume: 0**

**Proposed Softwood Volume: 0**

**Proposed Hardwood Volume: 0**

**Percent Difference from Inventory to Proposed Volume: 0**

**Rationale for Difference: N/A**

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**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

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**Primary Forest Access Road Construction:** No road is required to access the stands within this block.

**5 Year New Roads (km): 0**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Chain Pond North**

**Operating Area Number: CC05012**

**NFS Inventory Map #: 9022**

**NTS Map #: 2D/9 Glovertown**

**Description of Area:** This area of crown land is located south of Glovertown; it is accessed from the TCH (Route 1) via the T'railway and Chain Pond Resource Road. It is located on the west side of Chain Pond and is adjacent to area CC05013 (Rocky Pond). Permits are required from Parks NL to travel along the T'railway and would have to be during summer months to avoid conflicts with NLSF. The terrain varies from rolling to rocky with moderate slopes. The merchantable forest stands are comprised of 97% pure black spruce with 2% softwood dominated mixed and 1% hardwood dominated mixed. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

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

**Inventory Softwood Volume: 10547**

**Inventory Hardwood Volume: 428**

**Proposed Softwood Volume: 5000**

**Proposed Hardwood Volume: 200**

**Percent Difference from Inventory to Proposed Volume: 53**

**Rationale for Difference: Inventory adjustments and harvesting constraints**

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**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 1.6000000000000001**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Rocky Pond**

**Operating Area Number: CC05013**

**NFS Inventory Map #: 9011, 9021, 9022, 9032**

**NTS Map #: 2D/9 Glovertown**

**Description of Area:** This area of crown land is located south of Glovertown; it is accessed from the TCH (Route 1) via the T'railway and Chain Pond Resource Road. Access to the Chain Pond Resource Road is via the Newfoundland T'railway. Permits are required from Parks NL to travel along the T'railway and would have to be during summer months to avoid conflicts with NLSF. The terrain varies from rolling to hilly. The merchantable forest stands are comprised of 100% pure black spruce. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

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

**Inventory Softwood Volume: 73261**

**Inventory Hardwood Volume: 2948**

**Proposed Softwood Volume: 50000**

**Proposed Hardwood Volume: 2000**

**Percent Difference from Inventory to Proposed Volume: 32**

**Rationale for Difference: Inventory adjustments and harvesting constraints**

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**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 4.2999999999999998**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: 1 small bridge**

**Non-Timber Considerations and Mitigations:** All effort will be made to avoid harvesting within the NASP located at the NW boundary of this operating area. No road construction will occur within 500m of the Gambo Pond Reserve NASP.

**Operating Area Name: Terra Nova FMD5**

**Operating Area Number: CC05014**

**NFS Inventory Map #: 9012, 9013**

**NTS Map #: 2D/9 Glovertown**

**Description of Area:** This area of crown land is located just east of the community of Terra Nova across the river. It is accessed from the TCH (Route 1) from Alexander Bay Station near Glovertown Overpass. Then the T'railway approximately 26 km to the pole line. Access from the T'railway would require permits from Parks NL to travel along the T'railway and would have to be during summer months to avoid conflicts with NLSF. District boundary of FMD 4 and 5 runs through the middle of this block splitting it between the two districts.

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

**Inventory Softwood Volume: 5133**

**Inventory Hardwood Volume: 440**

**Proposed Softwood Volume: 5000**

**Proposed Hardwood Volume: 200**

**Percent Difference from Inventory to Proposed Volume: 3**

**Rationale for Difference: Inventory adjustments and harvesting constraints**

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**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 3.6000000000000001**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations:** No cutting within 105m of the shoreline of Terra Nova Lake.

**Operating Area Name: Southwest Pond**

**Operating Area Number: CC05015**

**NFS Inventory Map #: 7822, 7823, 7832, 7833**

**NTS Map #: 2/D16 Gambo**

**Description of Area:** This area of crown land is located on the Eastern side of Bonavista North; it is accessed remotely via snowmobile. In the future it will be accessed from the Southwest Pond CBPPL proposed access road. It is located on the southwest side of Southwest Pond. The terrain varies from flat to rolling with boggy areas. The merchantable forest stands are comprised of 70% pure black spruce with 18% softwood dominated mixed and 12% hardwood dominated mixed. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvester with extraction by forwarder. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 19081**

**Inventory Hardwood Volume: 1310**

**Proposed Softwood Volume: 13000**

**Proposed Hardwood Volume: 500**

**Percent Difference from Inventory to Proposed Volume: 32**

**Rationale for Difference: Inventory adjustments and harvesting constraints**

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**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch. The exact location of FAL's resources roads within this block will be determined at a later date as CBPPL's has proposed roads proposed to build road in this area in 2027-2033 which FAL's will then likely branch off of to gain access to crown timber within this block.

**5 Year New Roads (km): 2.5**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name:** Turkey Farm

**Operating Area Number:** CC05017

**NFS Inventory Map #:** 7831, 7841

**NTS Map #:** 2/D16 Gambo

**Description of Area:** This area of crown land is located on the western side of Bonavista North; it is accessed from Gander Bay Road or the bypass road north of Gander Int' Airport via the Boot Pond Resource Road. It is located on east side of the Gander Bay Highway. The terrain varies from flat to rolling with some wet areas. The merchantable forest stands are comprised of 50% pure black spruce, with 20% softwood dominated mixed and 30% hardwood dominated mixed. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

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**Harvesting Activities:** No harvesting activities are planned for this area during this FYOP. Silviculture Only.

**Inventory Softwood Volume:** 0

**Inventory Hardwood Volume:** 0

**Proposed Softwood Volume:** 0

**Proposed Hardwood Volume:** 0

**Percent Difference from Inventory to Proposed Volume:** 0

**Rationale for Difference:** N/A

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**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

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**Primary Forest Access Road Construction:** No road is required to access the stands within this block.

**5 Year New Roads (km):** 0

**5 Year Reconstruction (km):** 0

**5 Year Stream Crossings:** None

**Non-Timber Considerations and Mitigations:** This area overlaps with the Gander Lake Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Operating Area Name: Blade Road**

**Operating Area Number: CC05018**

**NFS Inventory Map #: 7841**

**NTS Map #: 2/D16 Gambo**

**Description of Area:** This area of crown land is located on the western side of Bonavista North; it is accessed from Gander Bay Road via the Boot Pond Resource Road. It is located on the East side of the Gander Bay Highway. The terrain varies from flat to minor slope. The merchantable forest stands are comprised of 60% pure black spruce, 21 % softwood dominated mixed and 19% hardwood dominated mixed. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

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

**Inventory Softwood Volume: 9150**

**Inventory Hardwood Volume: 1392**

**Proposed Softwood Volume: 9000**

**Proposed Hardwood Volume: 500**

**Percent Difference from Inventory to Proposed Volume: 2**

**Rationale for Difference: Inventory adjustments and harvesting constraints**

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**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 1.5**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations:** This area overlaps with the Gander Lake Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Operating Area Name: Chain Pond South**

**Operating Area Number: CC05020**

**NFS Inventory Map #: 9012**

**NTS Map #: 2D/9 Glovertown**

**Description of Area:** This area of crown land is located south of Glovertown; it is accessed from the TCH (Route 1) via the T'railway and Chain Pond Resource Road. Permits are required from Parks NL to travel along the T'railway and would have to be during summer months to avoid conflicts with NLSF. It is located on the southwest corner of Chain Pond. The terrain varies from rolling to hilly and rocky. The merchantable forest stands are comprised of 90% pure black spruce with 5% hardwood dominated mixed and 5% softwood dominated mixed. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

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

**Inventory Softwood Volume: 5020**

**Inventory Hardwood Volume: 98**

**Proposed Softwood Volume: 3500**

**Proposed Hardwood Volume: 50**

**Percent Difference from Inventory to Proposed Volume: 30**

**Rationale for Difference: Inventory adjustments and harvesting constraints**

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**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 1.3**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Soulis Pond**

**Operating Area Number: CC05021**

**NFS Inventory Map #: 7842**

**NTS Map #: 2/D16 Gambo**

**Description of Area:** This area of crown land is located North of Benton and is accessed from the TCH (Route 1) via Benton Pond / Soulis Pond Resource Road. It is located North of Soulis Pond. The terrain varies from flat to minor slopes with some wet areas. The merchantable forest stands are comprised of 100% pure black spruce. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

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

**Inventory Softwood Volume: 3641**

**Inventory Hardwood Volume: 1024**

**Proposed Softwood Volume: 3000**

**Proposed Hardwood Volume: 500**

**Percent Difference from Inventory to Proposed Volume: 18**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

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**Primary Forest Access Road Construction:** No road is required to access the stands within this block.

**5 Year New Roads (km): 1.3500000000000001**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations:** This area overlaps with the Gander Lake Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Operating Area Name: Burnside**

**Operating Area Number: CC05022**

**NFS Inventory Map #: 9131, 9132, 9142**

**NTS Map #: 2C/12 Eastport**

**Description of Area:** This area of crown land is located West of Burnside and North of Sanderingham on the north side of Northeast Arm. Access requires the construction of new resource roads starting from Burnside Road which would be constructed by FAL. The terrain varies from hilly to rough. The merchantable forest stands are comprised of 100% pure black spruce. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

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

**Inventory Softwood Volume: 48740**

**Inventory Hardwood Volume: 7858**

**Proposed Softwood Volume: 30000**

**Proposed Hardwood Volume: 3000**

**Percent Difference from Inventory to Proposed Volume: 38**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 7.9000000000000004**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: 3 culverts**

**Non-Timber Considerations and Mitigations:** A viewscape analysis was conducted so as to maintain the scenic viewscape from the Terra Nova National Park Cauesway and from Chuff's Bight Park. This area consists of mature spruce forest, the natural succession of the forest over time would involve age-r

**Operating Area Name: Barry's Forth Pond**

**Operating Area Number: CC05023**

**NFS Inventory Map #: 5612**

**NTS Map #: 2E/8 Carmanville**

**Description of Area:** This area of crown land is located on the east side of Barry's Fourht Pond and North of Weirs Pond. Access is on the Weir's Pond Resource Road is off Gander Bay Road (route 330) south of Gander Bay. The terrain is flat with some wet areas. The merchantable forest stands are comprised of 100% pure black spruce. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

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

**Inventory Softwood Volume: 12599**

**Inventory Hardwood Volume: 598**

**Proposed Softwood Volume: 10000**

**Proposed Hardwood Volume: 300**

**Percent Difference from Inventory to Proposed Volume: 21**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 1.3**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations:** This area overlaps with the Barry's Brook Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Operating Area Name: Crown Ridge**

**Operating Area Number: CC05031**

**NFS Inventory Map #: 7821, 7822**

**NTS Map #: 2/D16 Gambo**

**Description of Area:** This area of crown land is located at the Southeast end of Gander Lake. Access is on the Crown Cridge Resource Road off the TCH east of Benton. The terrain slopes from the road down to the lake.. The merchantable forest stands are comprised of 100% pure black spruce. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

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

**Inventory Softwood Volume: 6258**

**Inventory Hardwood Volume: 1322**

**Proposed Softwood Volume: 6000**

**Proposed Hardwood Volume: 600**

**Percent Difference from Inventory to Proposed Volume: 4**

**Rationale for Difference: Inventory adjustments and harvesting constraints**

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**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

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**Primary Forest Access Road Construction:** No road is required to access the stands within this block.

**5 Year New Roads (km): 0**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations:** This area overlaps with the Gander Lake Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Operating Area Name: Boot Pond Road**

**Operating Area Number: CC05039**

**NFS Inventory Map #: 6514/7744/6611/7841**

**NTS Map #: 02E/2 Gander River 02E/1 Weirs Pond 02D/15 Gander 02D/16 Gambo**

**Description of Area:** This area of crown land is located south of Glovertown; it is accessed from the TCH (Route 1) via Alexander Bay Station. Access to the Maccles Lake Resource Road is via the Newfoundland T'railway, therefore it would require permits from Parks NL to travel along the T'railway and would have to be during summer months to avoid conflicts with NLSF. The terrain varies from rolling to hilly with moderate slope. The merchantable forest stands are comprised of 97% pure black spruce, with hardwood dominated mixed making up 3%. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

---

**Harvesting Activities:** Silviculture Area. No commercial harvesting planned for 2027-2031 as the area was harvested in 2025 and 2026.

**Inventory Softwood Volume: 0**

**Inventory Hardwood Volume: 0**

**Proposed Softwood Volume: 0**

**Proposed Hardwood Volume: 0**

**Percent Difference from Inventory to Proposed Volume: 0**

**Rationale for Difference: Inventory adjustments and harvesting constraints**

---

**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**Primary Forest Access Road Construction:** No road is required to access the stands within this block.

**5 Year New Roads (km): 0**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations:**

## Appendix 2C – Commercial Operating Areas District 6

**Operating Area Name:** Glenwood

**Operating Area Number:** CC06001

**NFS Inventory Map #:**

**NTS Map #:** 2D/15

**Description of Area:** Located just to the west of the town of Glenwood, near \*Stuckless' Sawmill and Glenwoods old waste management site. Area begins about 1.5km south of the Trans Canada Highway on North West Gander access road. Access road should be well maintained to access this area. Central Newfoundland Forest. This area overlaps with the Gander/Gander Lake PPWSA.

---

**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume:** 10638

**Inventory Hardwood Volume:** 287

**Proposed Softwood Volume:** 10000

**Proposed Hardwood Volume:** 500

**Percent Difference from Inventory to Proposed Volume:** 6

**Rationale for Difference:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**Silviculture Activities:** 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 Mines Branch.

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**Primary Forest Access Road Construction:** 2.52km

**5 Year New Roads (km):** 0

**5 Year Reconstruction (km):** 2

**5 Year Stream Crossings:** This area overlaps with the Gander/Gander Lake Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Salmon River**

**Operating Area Number: CC06002**

**NFS Inventory Map #:**

**NTS Map #: 2D/15**

**Description of Area:** Located to the west of the town of Glenwood on North West Gander access road. Access road should be well maintained to access this area. Central Newfoundland Forest.

---

**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 38922**

**Inventory Hardwood Volume: 4012**

**Proposed Softwood Volume: 35000**

**Proposed Hardwood Volume: 4000**

**Percent Difference from Inventory to Proposed Volume: 10**

**Rationale for Difference:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**Silviculture Activities:** 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 Mines Branch.

---

**Primary Forest Access Road Construction: 1.23km**

**5 Year New Roads (km): 2.83km**

**5 Year Reconstruction (km): 1**

**5 Year Stream Crossings:**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name:** Junction

**Operating Area Number:** CC06003

**NFS Inventory Map #:**

**NTS Map #:** 2E/3

**Description of Area:** Located just south of Lewisporte Junction off of the Trans Canada Highway. Area is accessible via Burnt Bay Lake access road. Central Newfoundland Forest.

---

**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume:** 3716

**Inventory Hardwood Volume:** 1363

**Proposed Softwood Volume:** 3500

**Proposed Hardwood Volume:** 1000

**Percent Difference from Inventory to Proposed Volume:** 6

**Rationale for Difference:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**Silviculture Activities:** 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 Mines Branch.

---

**Primary Forest Access Road Construction:** 1.88km

**5 Year New Roads (km):** 0

**5 Year Reconstruction (km):** 1

**5 Year Stream Crossings:** This area overlaps with the Campbellton/Indian Arm Brook Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Waste Management Facility**

**Operating Area Number: CC06004**

**NFS Inventory Map #:**

**NTS Map #: 2E/3**

**Description of Area:** Area is located just to the west of Lewisporte junction. It is accessible by an access road approximately 1km from the Junction and again at the 2km mark. Central Newfoundland Forest.

---

**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 11**

**Inventory Hardwood Volume: 0**

**Proposed Softwood Volume: 11**

**Proposed Hardwood Volume: 0**

**Percent Difference from Inventory to Proposed Volume: 0**

**Rationale for Difference:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**Silviculture Activities:** 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 Mines Branch.

---

**Primary Forest Access Road Construction: 0**

**5 Year New Roads (km): 0**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings:**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Grant's Lake**

**Operating Area Number: CC06005**

**NFS Inventory Map #:**

**NTS Map #: 2E/3**

**Description of Area:** This area is located in Bear Lake access road. The access road is located 4.3km west of the Norris Arm South intersection on the TCH. The area starts at about the 3km mark on the road. Central Newfoundland Forest.

---

**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 3502**

**Inventory Hardwood Volume: 1719**

**Proposed Softwood Volume: 9000**

**Proposed Hardwood Volume: 1500**

**Percent Difference from Inventory to Proposed Volume: -157**

**Rationale for Difference:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**Silviculture Activities:** 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 Mines Branch.

---

**Primary Forest Access Road Construction: 1.43km**

**5 Year New Roads (km): 0**

**5 Year Reconstruction (km): 1**

**5 Year Stream Crossings:**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Scowett Pond**

**Operating Area Number: CC06006**

**NFS Inventory Map #:**

**NTS Map #: 2E/3**

**Description of Area:** This area is located at the very end of Bear Lake access road. The access road is located 4.3km west of the Norris Arm South intersection on the TCH. Central Newfoundland Forest.

---

**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 10282**

**Inventory Hardwood Volume: 720**

**Proposed Softwood Volume: 10000**

**Proposed Hardwood Volume: 700**

**Percent Difference from Inventory to Proposed Volume: 3**

**Rationale for Difference:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**Silviculture Activities:** 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 Mines Branch.

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**Primary Forest Access Road Construction: 1.31km**

**5 Year New Roads (km): 0.82km**

**5 Year Reconstruction (km): 3**

**5 Year Stream Crossings:** This area overlaps with the Campbellton/Indian Arm Brook Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Bog Camp**

**Operating Area Number: CC06010**

**NFS Inventory Map #: 8931, 8932, 8941**

**NTS Map #: 2D/10 Dead Wolf Pond**

**Description of Area:** This area of crown land is located South of Appleton and west of Gambo. It is accessed from the TCH (Route 1) via the Mint Brook Forest Resource Road. The terrain varies from flat to rolling with wet areas. The merchantable forest stands are comprised 69% black spruce, 23% white birch, 5% balsam fir and 3% softwood dominated mixed. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

---

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

**Inventory Softwood Volume: 60469**

**Inventory Hardwood Volume: 2008**

**Proposed Softwood Volume: 50000**

**Proposed Hardwood Volume: 1000**

**Percent Difference from Inventory to Proposed Volume: 17**

**Rationale for Difference: Inventory adjustments and harvesting constraints**

---

**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**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 Mines Branch.

**5 Year New Roads (km): 10.8**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: 2 culverts**

**Non-Timber Considerations and Mitigations:** This area overlaps with the Gander Lake Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Operating Area Name: Little Dead Wolf**

**Operating Area Number: CC06011**

**NFS Inventory Map #: 7712**

**NTS Map #: 2D/15 Gander**

**Description of Area:** This area of crown land is located southwest of Gander: it is accessed from the TCH (Route 1) via the Mint Brook Resource Road near Gambo. This block is north of area CC06019 (Skin Bridge). This area was harvested during the 2022-2026 FYOP. No harvesting is planned for this area. Silviculture only. The terrain varies from flat to rolling. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

---

**Harvesting Activities:** No harvesting activities are planned for this area during this FYOP. Silviculture Only.

**Inventory Softwood Volume: 0**

**Inventory Hardwood Volume: 0**

**Proposed Softwood Volume: 0**

**Proposed Hardwood Volume: 0**

**Percent Difference from Inventory to Proposed Volume: 0**

**Rationale for Difference: N/A**

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**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**Primary Forest Access Road Construction:** No road is required to access the stands within this block.

**5 Year New Roads (km): 0**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations:** This area overlaps with the Gander Lake Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Operating Area Name: Hunts Pond East**

**Operating Area Number: CC06012**

**NFS Inventory Map #: 7712, 7722**

**NTS Map #: 2D/15 Gander**

**Description of Area:** This area of crown land is located southwest of Gander: it is accessed from the TCH (Route 1) via the Mint Brook Resource Road near Gambo. The terrain varies from flat to rolling. The merchantable forest stands are comprised of 99% pure black spruce with 1% pure balsam fir. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

---

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

**Inventory Softwood Volume: 11091**

**Inventory Hardwood Volume: 263**

**Proposed Softwood Volume: 7500**

**Proposed Hardwood Volume: 100**

**Percent Difference from Inventory to Proposed Volume: 32**

**Rationale for Difference: Inventory adjustments and harvesting constraints**

---

**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**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 Mines Branch.

**5 Year New Roads (km): 2.6**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations:** This area overlaps with the Gander Lake Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Operating Area Name: Hunts Pond West**

**Operating Area Number: CC06016**

**NFS Inventory Map #: 7712, 7721, 7722, 7732**

**NTS Map #: 2D/15 Gander**

**Description of Area:** This area of crown land is located southwest of Gander: it is accessed from the TCH (Route 1) via the Mint Brook Resource Road near Gambo. This block is located on the western portion of Hunt Pond and south of Gander Lake. The terrain varies from rolling to moderate slope. The merchantable forest stands are comprised of 93% black spruce with 7% softwood dominated mixed. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

---

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

**Inventory Softwood Volume: 122881**

**Inventory Hardwood Volume: 7588**

**Proposed Softwood Volume: 120000**

**Proposed Hardwood Volume: 4000**

**Percent Difference from Inventory to Proposed Volume: 2**

**Rationale for Difference: Inventory adjustments and harvesting constraints**

---

**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**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 Mines Branch.

**5 Year New Roads (km): 18**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: 2 large bridges. 1 culvert**

**Non-Timber Considerations and Mitigations:** This area overlaps with the Gander Lake Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions. No harvest

**Operating Area Name:** Skin Bridge

**Operating Area Number:** CC06019

**NFS Inventory Map #:** 7712, 8942

**NTS Map #:** 2D/10 Dead Wolf Pond, 2D/15 Gander

**Description of Area:** This area of crown land is located southwest of Gander: it is accessed from the TCH (Route 1) via the Mint Brook Resource Road. The eastern boundary of this block forms the boundary between Forest Management Districts 6 and 4. The terrain is relatively flat. The merchantable forest stand are comprised of 100% pure black spruce. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

---

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

**Inventory Softwood Volume:** 6763

**Inventory Hardwood Volume:** 408

**Proposed Softwood Volume:** 6000

**Proposed Hardwood Volume:** 200

**Percent Difference from Inventory to Proposed Volume:** 11

**Rationale for Difference:** Inventory adjustments and harvesting constraints

---

**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**Primary Forest Access Road Construction:** No road is required to access the stands within this block.

**5 Year New Roads (km):** 0

**5 Year Reconstruction (km):** 0

**5 Year Stream Crossings:** None

**Non-Timber Considerations and Mitigations:** This area overlaps with the Gander Lake Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Operating Area Name: Fleighers FMD6**

**Operating Area Number: CC06020**

**NFS Inventory Map #: 8942**

**NTS Map #: 2D/10 Dead Wolf Pond**

**Description of Area:** This area of crown land is located southwest of Gander: it is accessed from the TCH (Route 1) via the Mint Brook Resource Road. The eastern boundary of this block forms the boundary between Forest Management Districts 6 and 4 and is shared with Fleighers FMD4 (CC04001). The terrain is relatively flat. The merchantable forest stand are comprised of 100% pure black spruce. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

---

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

**Inventory Softwood Volume: 1432**

**Inventory Hardwood Volume: 58**

**Proposed Softwood Volume: 1800**

**Proposed Hardwood Volume: 50**

**Percent Difference from Inventory to Proposed Volume: 0**

**Rationale for Difference: Inventory adjustments and harvesting constraints**

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**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**Primary Forest Access Road Construction: See Fleighers FMD4**

**5 Year New Roads (km): 0**

**5 Year Reconstruction (km): 0**

**5 Year Stream Crossings: None**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name:** Hunts Pond Silviculture

**Operating Area Number:** CC06021

**NFS Inventory Map #:** 7712, 7721, 7722, 7732

**NTS Map #:** 2D/15 Gander

**Description of Area:** This area of crown land is located southwest of Gander: it is accessed from the TCH (Route 1) via the Mint Brook Resource Road. This block is west of Rodney Pond. The terrain varies from flat to rolling. This area was harvested during the 2022-2026 FYOP. The area is located in the North Central Subregion of the Central Newfoundland Forest Ecoregion.

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**Harvesting Activities:** No harvesting activities are planned for this area during this FYOP. Silviculture Only.

**Inventory Softwood Volume:** 0

**Inventory Hardwood Volume:** 0

**Proposed Softwood Volume:** 0

**Proposed Hardwood Volume:** 0

**Percent Difference from Inventory to Proposed Volume:** 0

**Rationale for Difference:** N/A

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**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 operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**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 Mines Branch.

**5 Year New Roads (km):** 1

**5 Year Reconstruction (km):** 0

**5 Year Stream Crossings:** none

**Non-Timber Considerations and Mitigations:** This area overlaps with the Gander Lake Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

## Appendix 2D – Commercial Operating Areas District 8

**Operating Area Name:** Southwest Pond

**Operating Area Number:** CC08001

**NFS Inventory Map #:**\*\*\*\*

**NTS Map #:** 2E/7

**Description of Area:** Located in the north eastern part of the district and bordered by Route 331, Southwest Pond and Indian Pond. North Shore Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume:** 2112

**Inventory Hardwood Volume:** 539

**Proposed Softwood Volume:** 2000

**Proposed Hardwood Volume:** 250

**Percent Difference from Inventory to Proposed Volume:** 5

**Rationale for Difference:** Inventory adjustments and harvesting constraints

---

**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

---

**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 Mines Branch.

**5 Year New Roads (km):**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings:** 0

**Non-Timber Considerations and Mitigations:**

**Operating Area Name:** Gutt Road

**Operating Area Number:** CC08002

**NFS Inventory Map #:**

**NTS Map #:** 2E/2

**Description of Area:** Located in the eastern portion of the district, north of Rocky Pond and just west of the Gander River. Accessable via Clark's Head access road. Central Newfoundland Forest.

---

**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume:** 8511

**Inventory Hardwood Volume:** 343

**Proposed Softwood Volume:** 8000

**Proposed Hardwood Volume:** 340

**Percent Difference from Inventory to Proposed Volume:** 6

**Rationale for Difference:** Inventory adjustments and harvesting constraints

---

**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km):**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings:** 0

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Bellman's Brook**

**Operating Area Number: CC08003**

**NFS Inventory Map #:**

**NTS Map #: 2E/2**

**Description of Area:** Located in the eastern portion of the district on the south east side of Rocky Pond. Just west of First Pond, Gander River. Accessable via Clarks Head access road. Central Newfoundland Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 4045**

**Inventory Hardwood Volume: 153**

**Proposed Softwood Volume: 2500**

**Proposed Hardwood Volume: 150**

**Percent Difference from Inventory to Proposed Volume: 38**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 1.10km**

**5 Year Reconstruction (km): 1.06km**

**5 Year Stream Crossings: 0**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Second Pond**

**Operating Area Number: CC08004**

**NFS Inventory Map #:**

**NTS Map #: 2E/2**

**Description of Area:** Located in the eastern part of the district and bordered by Bellmans Brook. West of the Gander River (Second Pond). Accessable via Salmon Pond access road and Birchy Bay access road. Central Newfoundland Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 17505**

**Inventory Hardwood Volume: 3885**

**Proposed Softwood Volume: 17000**

**Proposed Hardwood Volume: 3500**

**Percent Difference from Inventory to Proposed Volume: 3**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 1.83km**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 0**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Third Pond**

**Operating Area Number: CC08005**

**NFS Inventory Map #:**

**NTS Map #: 2E/2**

**Description of Area:** A relatively small, slim area in the south east corner of the district that is about 4.5km east Home Pond and 1km from the Gander River. Central Newfoundland Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 0**

**Inventory Hardwood Volume: 0**

**Proposed Softwood Volume: 2000**

**Proposed Hardwood Volume: 500**

**Percent Difference from Inventory to Proposed Volume:**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km):**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 0**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: 2 Mile Branch/Home Pond**

**Operating Area Number: CC08006**

**NFS Inventory Map #:**

**NTS Map #: 2E/2**

**Description of Area:** A larger area bordered by the Gander River, Home Pond, Rocky Pond and Little Salmon Pond. Accessable via the 2 Mile Branch off Salmon Pond Access Road. Central Newfoundland Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 18665**

**Inventory Hardwood Volume: 823**

**Proposed Softwood Volume: 15000**

**Proposed Hardwood Volume: 750**

**Percent Difference from Inventory to Proposed Volume: 20**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 4.37km**

**5 Year Reconstruction (km): 0.86km**

**5 Year Stream Crossings: 2**

**Non-Timber Considerations and Mitigations:** This area overlaps with the Stoneville/Dog Bay Pond Brook Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Operating Area Name: Salmon Pond**

**Operating Area Number: CC08007**

**NFS Inventory Map #:**

**NTS Map #: 2E/2**

**Description of Area:** Located in the most south central part of the district. Area is just off the TCH/Salmon Pond Acc. Rd. & between Salmon Pond and Little Salmon Pond. Central Newfoundland Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 4968**

**Inventory Hardwood Volume: 509**

**Proposed Softwood Volume: 4500**

**Proposed Hardwood Volume: 500**

**Percent Difference from Inventory to Proposed Volume: 9**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 2.11km**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 0**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Back Pond**

**Operating Area Number: CC08008**

**NFS Inventory Map #:**

**NTS Map #: 2E/2**

**Description of Area:** Located in the eastern part of the district. Central Newfoundland Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 3259**

**Inventory Hardwood Volume: 131**

**Proposed Softwood Volume: 2000**

**Proposed Hardwood Volume: 100**

**Percent Difference from Inventory to Proposed Volume: 39**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km):**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 0**

**Non-Timber Considerations and Mitigations:** This area overlaps with the Stoneville/Dog Bay Pond Brook Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Operating Area Name: Burnt Lake**

**Operating Area Number: CC08009**

**NFS Inventory Map #:**

**NTS Map #: 2E/7**

**Description of Area:** Located in the north eastern part of the district bordered by Burnt Lake, North Shore Forest and the Central Newfoundland Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 2625**

**Inventory Hardwood Volume: 2881**

**Proposed Softwood Volume: 2600**

**Proposed Hardwood Volume: 2800**

**Percent Difference from Inventory to Proposed Volume: 1**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km):**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 0**

**Non-Timber Considerations and Mitigations:** This area overlaps with the Stoneville/Dog Bay Pond Brook Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Operating Area Name: Punt Pond**

**Operating Area Number: CC08010**

**NFS Inventory Map #:**

**NTS Map #: 2E/7**

**Description of Area:** Located in the north eastern part of the district bordered by Punt Pond and Greenwood Pond. North Shore Forest and the Central Newfoundland Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 5273**

**Inventory Hardwood Volume: 1122**

**Proposed Softwood Volume: 2450**

**Proposed Hardwood Volume: 375**

**Percent Difference from Inventory to Proposed Volume: 54**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km):**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 0**

**Non-Timber Considerations and Mitigations:** This area overlaps with the Stoneville/Dog Bay Pond Brook Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Operating Area Name: Stoneville**

**Operating Area Number: CC08011**

**NFS Inventory Map #:**

**NTS Map #: 2E/7,2E/10**

**Description of Area:** Located in the most north eastern part of the district and bordered by the ocean. North Shore Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 20048**

**Inventory Hardwood Volume: 4087**

**Proposed Softwood Volume: 11500**

**Proposed Hardwood Volume: 2245**

**Percent Difference from Inventory to Proposed Volume: 43**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 2.38km**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 1**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Celies Cove**

**Operating Area Number: CC08012**

**NFS Inventory Map #:**

**NTS Map #: 2E/7**

**Description of Area:** Located in the north eastern part of the district and bordered by Route 340 and Stoneville PPWSA. About 1km from First Pond/Dog Bay Pond. North Shore Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 18268**

**Inventory Hardwood Volume: 3440**

**Proposed Softwood Volume: 15000**

**Proposed Hardwood Volume: 3000**

**Percent Difference from Inventory to Proposed Volume: 18**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 4.00km**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 1**

**Non-Timber Considerations and Mitigations:** This area overlaps with the Stoneville/Dog Bay Pond Brook Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Operating Area Name: Jumpers Pond**

**Operating Area Number: CC08013**

**NFS Inventory Map #:**

**NTS Map #: 2E/7**

**Description of Area:** Located just to the west of the community of Birchy Bay and bordered by Jumpers Pond. Will be accessible via Birchy Bay access road. North Shore Forest. This area overlaps with Birchy Bay/Jumpers Pond PPWSA.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 5848**

**Inventory Hardwood Volume: 3305**

**Proposed Softwood Volume: 5000**

**Proposed Hardwood Volume: 3000**

**Percent Difference from Inventory to Proposed Volume: 15**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km):**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 0**

**Non-Timber Considerations and Mitigations:** This area overlaps with the Birchy Bay/Jumpers Pond Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Operating Area Name: Long Pond**

**Operating Area Number: CC08014**

**NFS Inventory Map #:**

**NTS Map #: 2E/2**

**Description of Area:** Located approximately 7km in on Birch Bay Access Road. Bordered by Long Pond and Little Long Pond. Accessible via Birch Bay access road. North Shore Forest & Central Newfoundland Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 3230**

**Inventory Hardwood Volume: 105**

**Proposed Softwood Volume: 3000**

**Proposed Hardwood Volume: 100**

**Percent Difference from Inventory to Proposed Volume: 7**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km):**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 0**

**Non-Timber Considerations and Mitigations:** This area overlaps with the Birch Bay/Jumpers Pond & Loon Bay/ Southeast Pond Protected Public Water Supply Areas (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Operating Area Name: Fawkes Pond**

**Operating Area Number: CC08015**

**NFS Inventory Map #:**

**NTS Map #: 2E/2**

**Description of Area:** Located on Brinks Pond access road in the most central part of the district. Bordered by Fawkes Pond, Blind Pond, Stopwater Pond and Consideration Pond. Central Newfoundland Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 9333**

**Inventory Hardwood Volume: 1609**

**Proposed Softwood Volume: 7000**

**Proposed Hardwood Volume: 1500**

**Percent Difference from Inventory to Proposed Volume: 25**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 2.11km**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 0**

**Non-Timber Considerations and Mitigations:** This area overlaps with the Campbellton/Indian Arm Brook Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Operating Area Name:** Loon Bay

**Operating Area Number:** CC08016

**NFS Inventory Map #:**

**NTS Map #:** 2E/2, 2E/7

**Description of Area:** Located in the central part of the district on Loon Bay Acc. Rd. The area is bordered by Southeast Pond, Dildo Pond & Long Pond. \*\*\*\*Area will require road upgrading and bridge repairs. North Shore Forest & Central Newfoundland Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume:** 16145

**Inventory Hardwood Volume:** 2333

**Proposed Softwood Volume:** 8000

**Proposed Hardwood Volume:** 2000

**Percent Difference from Inventory to Proposed Volume:** 50

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km):**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings:** 0

**Non-Timber Considerations and Mitigations:** This area overlaps with the Loon Bay/Southeast Pond Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Operating Area Name:** Birchy Bay Pond

**Operating Area Number:** CC08017

**NFS Inventory Map #:**

**NTS Map #:** 2E/7

**Description of Area:** Located in the central part of the district on Birchy Bay Acc. Rd. The area is bordered by Long Pond and Linfields Pond. North Shore Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume:** 7128

**Inventory Hardwood Volume:** 812

**Proposed Softwood Volume:** 3000

**Proposed Hardwood Volume:** 500

**Percent Difference from Inventory to Proposed Volume:** 58

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km):**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings:** 0

**Non-Timber Considerations and Mitigations:** This area overlaps with the Loon Bay/Southeast Pond Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Operating Area Name:** Baytona

**Operating Area Number:** CC08018

**NFS Inventory Map #:**

**NTS Map #:** 2E/7

**Description of Area:** Located in the north eastern part of the district about 1.5km behind the community of Baytona. North Shore forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume:** 15272

**Inventory Hardwood Volume:** 1383

**Proposed Softwood Volume:** 13000

**Proposed Hardwood Volume:** 1200

**Percent Difference from Inventory to Proposed Volume:** 15

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km):** 7.29km

**5 Year Reconstruction (km):**

**5 Year Stream Crossings:** 1

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Brinks Pond**

**Operating Area Number: CC08019**

**NFS Inventory Map #:**

**NTS Map #: 2E/2**

**Description of Area:** Located in the central part of the district and bordered by Shipbuilders Pond, Brinks Pond and Dildo Pond. Central Newfoundland Forest & North Shore Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 10323**

**Inventory Hardwood Volume: 3884**

**Proposed Softwood Volume: 10000**

**Proposed Hardwood Volume: 3000**

**Percent Difference from Inventory to Proposed Volume: 3**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 4.84km**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 1**

**Non-Timber Considerations and Mitigations:** This area overlaps with the Loon Bay/Southeast Pond Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Operating Area Name:** Shipbuilders Pond

**Operating Area Number:** CC08020

**NFS Inventory Map #:**

**NTS Map #:** 2E/2, 2E7

**Description of Area:** Area located in the central part of the district on Shipbuilders access road bordering Shipbuilders Pond, on Loon Bay ridge. North Shore Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume:** 1168

**Inventory Hardwood Volume:** 250

**Proposed Softwood Volume:** 1000

**Proposed Hardwood Volume:** 250

**Percent Difference from Inventory to Proposed Volume:** 14

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km):**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings:** 0

**Non-Timber Considerations and Mitigations:**

**Operating Area Name:** Salt Shed Road

**Operating Area Number:** CC08021

**NFS Inventory Map #:**

**NTS Map #:** 2E/3

**Description of Area:** Area located to the east of Lewisporte Junction highway off the Dept. Highways depot road. Northerly boundaried by Island Pond and easternly by 3rd Brook Pond. Central Newfoundland Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume:** 30237

**Inventory Hardwood Volume:** 2151

**Proposed Softwood Volume:** 25000

**Proposed Hardwood Volume:** 2000

**Percent Difference from Inventory to Proposed Volume:** 17

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km):** 1.34km

**5 Year Reconstruction (km):** 2.60km

**5 Year Stream Crossings:** 1

**Non-Timber Considerations and Mitigations:** This area overlaps with the Campbellton/Indian Arm Brook Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

**Operating Area Name: Junction Highway**

**Operating Area Number: CC08022**

**NFS Inventory Map #:**

**NTS Map #: 2E/3**

**Description of Area:** Area is bounded by Lewisporte Junction Highway, 1st Lilly Pond, 2nd Lilly Pond and 1st, 2nd & 3rd Otter Ponds. "Behind" Camp Emanuel on Junction Highway. Central Newfoundland Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 10368**

**Inventory Hardwood Volume: 2541**

**Proposed Softwood Volume: 8000**

**Proposed Hardwood Volume: 2000**

**Percent Difference from Inventory to Proposed Volume: 23**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 2.56km**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 2**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Snows Pond**

**Operating Area Number: CC08023**

**NFS Inventory Map #:**

**NTS Map #: 2E/3**

**Description of Area:** Located in the southern part of the district and just south of the TCH across from the Norris Arm North intersection. Central Newfoundland Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 9206**

**Inventory Hardwood Volume: 2185**

**Proposed Softwood Volume: 7500**

**Proposed Hardwood Volume: 1500**

**Percent Difference from Inventory to Proposed Volume: 19**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 3.29km**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 1**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Otter Pond**

**Operating Area Number: CC08024**

**NFS Inventory Map #:**

**NTS Map #: 2E/3**

**Description of Area:** Located in the central part of the district just to the east of Lilly Pond and bordering the North side of the Newfoundland Trailway. Central Newfoundland Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 6232**

**Inventory Hardwood Volume: 2340**

**Proposed Softwood Volume: 5000**

**Proposed Hardwood Volume: 2000**

**Percent Difference from Inventory to Proposed Volume: 20**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 0.87km**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 0**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Wilf Keats**

**Operating Area Number: CC08025**

**NFS Inventory Map #:**

**NTS Map #: 2E/3**

**Description of Area:** Located in the central part of the district, near Burnt Arm Pond and Gull Cliff Pond. Accessed through Wilf Keats Acc. Rd. near Milord Arm. Mostly Central Newfoundland Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 13492**

**Inventory Hardwood Volume: 2864**

**Proposed Softwood Volume: 13000**

**Proposed Hardwood Volume: 3000**

**Percent Difference from Inventory to Proposed Volume: 4**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 2.42km**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 1**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Milords Arm**

**Operating Area Number: CC08026**

**NFS Inventory Map #:**

**NTS Map #: 2E/6**

**Description of Area:** Located in the central part of the district near Milord's Arm and Stanhope. North Shore Forest.

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**Harvesting Activities:** Commercial activity will include sawlog and warfsticks harvesting using chainsaw with extraction by ATV and snowmobile. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 642**

**Inventory Hardwood Volume: 200**

**Proposed Softwood Volume: 600**

**Proposed Hardwood Volume: 200**

**Percent Difference from Inventory to Proposed Volume: 7**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km):**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 0**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Norris Arm North**

**Operating Area Number: CC08027**

**NFS Inventory Map #:**

**NTS Map #: 2E/3**

**Description of Area:** Located in the central part of the district just to the north east of the community of Norris Arm North and bordering the West side of Lilly Pond. Central Newfoundland Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 80397**

**Inventory Hardwood Volume: 17111**

**Proposed Softwood Volume: 75000**

**Proposed Hardwood Volume: 10000**

**Percent Difference from Inventory to Proposed Volume: 7**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 11.03km**

**5 Year Reconstruction (km): 10.88km**

**5 Year Stream Crossings: 7**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name:** Norris Arm South/Mill Lake

**Operating Area Number:** CC08028

**NFS Inventory Map #:**

**NTS Map #:** 2E/3

**Description of Area:** Located in the south central part of the district and to the south east of Norris Arm South. The area borders the south side of the TCH between Rattling Brook and Eel Brook. Central Newfoundland Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume:** 4445

**Inventory Hardwood Volume:** 1246

**Proposed Softwood Volume:** 1500

**Proposed Hardwood Volume:** 350

**Percent Difference from Inventory to Proposed Volume:** 66

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km):**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings:** 0

**Non-Timber Considerations and Mitigations:**

**Operating Area Name:** Exploits

**Operating Area Number:** CC08029

**NFS Inventory Map #:**

**NTS Map #:** 2E/3

**Description of Area:** Located in the most South Western part of the district, just off the TCH, between Rattling Brook and Jumpers Brook. Central Newfoundland Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume:** 6149

**Inventory Hardwood Volume:** 335

**Proposed Softwood Volume:** 6000

**Proposed Hardwood Volume:** 335

**Percent Difference from Inventory to Proposed Volume:** 2

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km):** 5.28km

**5 Year Reconstruction (km):**

**5 Year Stream Crossings:** 1

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Diver Pond**

**Operating Area Number: CC08030**

**NFS Inventory Map #:**

**NTS Map #: 2E/6**

**Description of Area:** Located in the western part of the district between Point Leamington and Glovers Harbour and bordering Charles Brook. North Shore Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 24178**

**Inventory Hardwood Volume: 4744**

**Proposed Softwood Volume: 15000**

**Proposed Hardwood Volume: 6000**

**Percent Difference from Inventory to Proposed Volume: 38**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 5.87km**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 3**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name:** Winter Tickle

**Operating Area Number:** CC08031

**NFS Inventory Map #:**

**NTS Map #:** 2E/6

**Description of Area:** Located in the western part of the district in the South Arm/New Bay area. On the west side of the road to Fortune Harbour. North Shore Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume:** 18897

**Inventory Hardwood Volume:** 3618

**Proposed Softwood Volume:** 18000

**Proposed Hardwood Volume:** 3500

**Percent Difference from Inventory to Proposed Volume:** 5

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km):** 6.04km

**5 Year Reconstruction (km):**

**5 Year Stream Crossings:** 1

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Askel Lake**

**Operating Area Number: CC08032**

**NFS Inventory Map #:**

**NTS Map #: 2E/6**

**Description of Area:** Located in the western part of the district west of the community of Point Leamington and bordering Western Arm Brook. Central Newfoundland Forrest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 6676**

**Inventory Hardwood Volume: 1228**

**Proposed Softwood Volume: 6000**

**Proposed Hardwood Volume: 1200**

**Percent Difference from Inventory to Proposed Volume: 10**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 2.04km**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 2**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Osmonton Arm**

**Operating Area Number: CC08033**

**NFS Inventory Map #:**

**NTS Map #: 2E/6**

**Description of Area:** Located in the western part of the district just south of Osmonton Arm and north of Southwest Arm. North Shore Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 24818**

**Inventory Hardwood Volume: 4450**

**Proposed Softwood Volume: 24000**

**Proposed Hardwood Volume: 4450**

**Percent Difference from Inventory to Proposed Volume: 3**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 3.87km**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 0**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Snake Lake**

**Operating Area Number: CC08034**

**NFS Inventory Map #:**

**NTS Map #: 2E/5**

**Description of Area:** Located in the most western portion of the district bordered by Seal Bay. Rough, hilly and rocky terrain. North Shore Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 13744**

**Inventory Hardwood Volume: 1509**

**Proposed Softwood Volume: 10000**

**Proposed Hardwood Volume: 1500**

**Percent Difference from Inventory to Proposed Volume: 27**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 8.02km**

**5 Year Reconstruction (km):**

**5 Year Stream Crossings: 4**

**Non-Timber Considerations and Mitigations:**

**Operating Area Name: Dans Pond**

**Operating Area Number: CC08035**

**NFS Inventory Map #:**

**NTS Map #: 2E/2**

**Description of Area:** Located in the middle of the district. Central Newfoundland Forest.

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**Harvesting Activities:** Commercial activity will include pulpwood, sawlog and fuelwood harvesting using chainsaws and mechanical harvesters with extraction by forwarder. Commercial hardwood fuel-wood operations will be a significant portion of this block. A small amount of domestic harvesting could occur once commercial harvesting is completed. This would likely occur in the winter using chainsaws with extraction by snowmobile or ATV.

**Inventory Softwood Volume: 74793**

**Inventory Hardwood Volume: 6805**

**Proposed Softwood Volume: 50000**

**Proposed Hardwood Volume: 6800**

**Percent Difference from Inventory to Proposed Volume: 33**

**Rationale for Difference:** Inventory adjustments and harvesting constraints

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**Silviculture Activities:** Reconnaissance surveys will be carried out on existing and new cutovers and regenerating 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. All potential silviculture areas are identified on the operating area maps as proposed harvest areas, recent cuts and immature stands.

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**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 Mines Branch.

**5 Year New Roads (km): 6.21km**

**5 Year Reconstruction (km): 3.58km**

**5 Year Stream Crossings: 5**

**Non-Timber Considerations and Mitigations:** This area overlaps with the Campbellton/Indian Arm Brook Protected Public Water Supply Area (PPWSA). All activities will be outlined in a development permit, as required by the Water Resources Management Division, and will comply with all applicable conditions.

## Appendix 3 – Stakeholders Consulted

### Indigenous

Angelina Francis <afrancis@mfngov.ca>;

Ian Sullivan [isullivan@qalipu.ca](mailto:isullivan@qalipu.ca)

### Municipalities

Appleton <townofappleton@personainternet.com>;

Baytona <thetownofbaytona@eastlink.ca>;

Baytona <thetownofbaytona@eastlink.ca>;

Birchy Bay <office@birchybay.ca>;

Botwood <botwoodtowncouncil@nf.aibn.com>;

Campbellton <townofcampbellton@nf.aibn.com>;

Carmanville <townofcarmanville@nf.aibn.com>;

Centreville-Wareham-Trinity <townofcwt@bellaliant.com>;

Change Islands <townclerk@changeislands.ca>;

Comfort Cove-Newstead <ccntown@eastlink.ca>;

Cottlesville <towncottlesville@eastlink.ca>;

Dover <townofdover@persona.ca>;

Eastport <kelly.bull@eastport.ca>;

Embree <embreetowncouncil@outlook.com>;

Fogo Island <info@townoffogoisland.ca>;

Gambo <lorne.greene@townofgambo.com>;

Gander <info@gandercanada.com>;

Glenwood <townofglenwood@hotmail.com>;

Glovertown <glovertowncounc@eastlink.ca>;

Happy Adventure <happyadventure@nf.aibn.com>;

Hare Bay <townmanager@harebay.ca>;

Indian Bay <TOIB1971@gmail.com>;

Leading Ticks <leadingticks@nf.aibn.com>;

Lewisporte <info@lewisportecanada.com>;

Little Burnt Bay <lbbtowncouncil@hotmail.com>;

Lumsden <townoflumsden@nf.aibn.com>;

Musgrave Harbour <musgravetowncouncil@nf.aibn.com>;

New-Wes-Valley <new-wes-valley@nf.aibn.com>;

Norris Arm <townofnorrisarm@gmail.com>;

Northern Arm <contact@townofnorthernarm.ca>;

Peterview <townofpeterview@nf.aibn.com>;

Point Leamington <ptleamington@nf.aibn.com>;  
Salvage <bev.salvage@hotmail.com>;  
Sandringham <townofsandringham@yahoo.ca>;  
Sandy Cove (Bonavista Bay <sandycove@bellaliant.com>;  
Summerford <townofsummerford@nf.aibn.com>;  
Traytown [townoftraytown@eastlink.ca](mailto:townoftraytown@eastlink.ca)

### **Outfitters – Tourism ETC**

Newfoundland and Labrador Outfitters Association <info@nloa.ca>;  
Newfoundland and Labrador Snowmobile Federation <info@nlsf.org>;  
Indian Bay Ecosystem Corporation <ibec@eastlink.ca>;  
Atlantic Salmon Federation <savesalmon@asf.ca>;  
Adventure Central Newfoundland <shannon@adventurecentral.ca>;  
Damnable Trail <hike@damnabletrail.com>;  
Fogo Island Inn <sales@fogoislandinn.ca>;  
Shorefast <hello@shorefast.org>;  
The Homestead Adventures Glamping <thehomesteadadventures@gmail.com>;  
Hare Bay Adventures <harebayadventures@gmail.com>;  
Cape Freels Development Association <tinabarbour1@hotmail.com>;  
Terra Nova National Park <terravanpinfocanada@canada.ca>;  
Birchy Point Lodge <bpetten@hickmangroup.net>;  
Efford's Hunting Adventures <info@effordshunting.nf.ca>;  
Banting Lake Lodge <adamsalvin@hotmail.com>;  
Bear Cliff Lodge <robcoates11@yahoo.ca>;  
White Cliff Lodge <whiteclifflodgenl@gmail.com>;  
Nakiska on the River <jdallan@cabotbusiness.ca>;  
Caribou Pond Outfitting Ltd <boyce.dove@nf.sympatico.ca>;  
Mountain Top Cabin Ltd. (Eastern Pond Camp <artryan1959@hotmail.com>;  
River Run Outfitting & Tours <riverrunhunts@hotmail.com>;  
Sylt Lake Tent Camp <syltlaketentcamps@gmail.com>;  
Beaver Lodge <sstone@aharvey.nf.ca>;  
Gander River Outfitters <matt@ganderriver.com>;  
Honey Buckette Rod & Gun Club <kimberly.jones@kmkcapital.ca>;  
Ocean Side Country Lodge <hazen.chippett@nf.sympatico.ca>;  
Saunders Camps <jeffrey.saunders@nl.rogers.com>;  
Twelve Acre Lodge [info@twelveacrelodge.com](mailto:info@twelveacrelodge.com)

### **Listing sent to Internal Departments**

- 1) Department of Forestry, Agriculture and Lands
  - a. Wildlife Division
  - b. Crown Lands Division
  - c. Land Management Division
- 2) Department of Environment, Conservation and Climate Change
  - a. Policy, Planning and Natural Areas Division
  - b. Water Resources Management Division
- 3) Department of Tourism Culture, Arts and Recreation
  - a. Tourism Product Development Division
- 4) Department of Industry, Energy and Technology
  - a. Mineral Lands Division

## Appendix 4 - Summary of External Outreach

| External                                         | Contact Date | Response Date | Issue / Concern                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Action / Comments from Forestry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Qualipu First Nation                             | May 11, 2026 | May 22, 2026  | <p>Good morning Dave,</p> <p>Reaching out this morning with a quick question for you.</p> <p>First, I'm wondering if you could provide shapefiles for these FMD plans (Zone 2 as well)? The KMZ's are pretty bare-bones, just spatial information without any accompanying data.</p> <p>Also, I would like to provide Chief, council, and our membership the opportunity to offer feedback on these 5 year plans, so we will need more time to comment.</p> <p>Have a great weekend!</p> <p>Wela'lin,<br/>Ian</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>Hi Ian,</p> <p>We can certainly get the shapefiles sent along for both the Zone 2 and 3 Plans. We normally offer the KMZ files first to serve as a visual tool because most of our outreach do not have arcgis technology.</p> <p>When you have the opportunity to review, please send along any questions or concerns. We are currently getting these plans ready to initiate the Environmental Assessment process for late June. With this in mind, would you have any idea of a timeframe for your request of an extension past our June 05 requested response time?</p>                                                                                                                                                                                                                                                                                            |
| Town of Indian Bay                               | May 11, 2026 | May 25, 2026  | <p>Good Day Dave,</p> <p>During the regular council meeting held on May 12, 2026, council reviewed the email received on May 11, 2026. After discussing the matter, council confirmed that they currently have no further questions or concerns. However, they would greatly appreciate receiving any updates that may impact Indian Bay. If any additional questions or concerns arise in the future, I will be sure to contact you, provided that is agreeable to you.</p> <p>Thanks,</p> <p>Brendalee Fancy<br/>Town Clerk/Manager</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Town of Gambo                                    | May 11, 2026 | June 22, 2026 | <p>Good morning Dave:</p> <p>The new Five-Year Operating Plan for Forest Management Districts 04, 05 and 08 (Planning Zone 3) was tabled and reviewed at a recent Meeting of Council held on June 9th, 2026.</p> <p>Please be advised that Council passed a resolution to accept the five-year operating plan as presented by the Department of Forestry, Agriculture and Lands.</p> <p>If you require anything further, please do not hesitate to contact me.</p> <p>I trust this is satisfactory.</p> <p>Regards</p> <p>Lorne Greene<br/>Town Clerk<br/>lorne.greene@townofgambo.com<br/>(709)674-4476 Telephone Extension 205<br/>(709)674-5399 Fax<br/>www.townofgambo.com</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Town of Dover                                    | May 11, 2026 | May 12, 2026  | <p>Good Morning</p> <p>Is it possible to get this in a different format as I cannot open the files</p> <p>Thank You<br/>Roxanne Collins<br/>Clerk/Manager</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Forestry provided assistance on viewing the data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Chair Local Service District Burnside-St. Chad's | May 11, 2026 | May 25, 2026  | <p>The Local Service District of Burnside-St. Chad's did not receive a copy of your email but was provided a copy from a neighbouring community.</p> <p>I noticed, as well, that your email list did not contain any Local Service Districts. I trust that this was an oversight and that LSDs' comments/concerns will be given the same status as those from incorporated towns.</p> <p>Since only maps were supplied, our LSD have a number of questions and concerns with the proposed harvesting area west of Burnside and St. Chad's. We would like for a representative of your Department to meet with our residents to discuss the plan and address these concerns.</p> <p>Here are some items requiring clarification. Others may come up in a public meeting.</p> <ol style="list-style-type: none"> <li>1. When is harvesting planned to start in this area?</li> <li>2. How many ha. are planned to be harvested?</li> <li>3. What time of the year will harvesting operations take place - winter, spring, summer or fall?</li> <li>4. Is the area identified planned to be fully harvested by 2031?</li> <li>5. What is the age/condition of the timber slated for harvest - mature, over mature, insect or disease damaged, etc.?</li> <li>6. Will additional area be designated for harvesting after 2031?</li> <li>7. Will reforestation projects follow the harvesting?</li> <li>8. What class of roads will be constructed?</li> <li>9. How many km of roads are proposed in the plan?</li> <li>10. Who will maintain the roads during the operational period?</li> <li>11. What are the plans for the roads after the area is logged?</li> <li>12. Will the roads open up domestic cutting areas?</li> <li>13. How close will the woods roads come to the cottage road from Cults Harbour?</li> <li>14. Are there any plans to prevent or reduce the risk of wildfire from the harvesting operations and recreational activities?</li> <li>15. What safety precautions will be put in place regarding log trucks traveling through communities?</li> <li>16. Will Forestry be addressing the added wear and tear on the Highways through the Peninsula?</li> </ol> <p>I would appreciate your response to these questions.</p> <p>Thank you.</p> <p>Derek Hewitt<br/>Chair</p> | <p>Local Service Districts are not part of the stakeholder list sent out prior to EA submission and may make comments on the plan submission to EA. Questions (1-14) are all answered in the Zone 3 Ecosystem Plan Document that will be published on the public EA website.</p> <p>Question 15, on safety of trucking through community's: It is the responsibility of all trucking company to follow all legal requirements when traveling through communities, as per the Highway Traffic Act (RSNL 1990.c. H-3).</p> <p>Question 16, on wear and tear on highways: Forestry commercial activities avail of public roads under the Highway Traffic Act (RSNL 1990.c. H-3), The Department of Transportation and Infrastructure is responsible for all maintenance on public highways. There were 9 responses from Burnside area - 5 agree with proposal 4 disagree</p> |

## Appendix 5 - Summary of Internal Outreach

| Water Resources                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           | Action / Comments from Forestry                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-------------------------------------------------------------------------|
| Contact Date April 21, 2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Response Date May 8, 2026 |                                                                         |
| Issue / Concern                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                         |
| <p>Water Rights, Investigations and Modelling Section<br/>Contact: Colin DeCoste at colindecoste@gov.nl.ca or 709-729-1646</p> <p>Roads<br/>Roads passing through wetlands or within 15m of a body of water will require S48 approval.<br/>Culverts associated with waterbodies visible on 1:50k topo mapping will require S48 approval.</p> <p>Any clearing of land associated with commercial or domestic harvesting within 15m of a body of water/wetland will require S48 approval.<br/>Any equipment crossing a body of water or wetland will require S48 approval.</p> <p>If Silviculture Treatment or activities associated with it take place within 15m of a body of water, they may require S48 approval.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           | Forestry will obtain all applicable permits from WR                     |
| <p>Commercial forestry activities overlap the following Protected Public Water Supply Areas (PPWSAs) and a Section 39 Permit will be required for each:<br/>Gander Lake PPWSA (Gander, Glenwood and Appleton) – Districts 4, 5 and 6<br/>Indian Bay Brook PPWSA (Indian Bay) – District 5<br/>Barry’s Brook PPWSA (Gander Bay South) – District 5<br/>Indian Arm Brook PPWSA (Campbellton) – District 6 and 8<br/>Dog Bay Pond Brook PPWSA (Stoneville) – District 8<br/>Jumper’s Pond PPWSA (Birchy Bay) – District 8<br/>Southeast Pond PPWSA (Loon Bay) – District 8</p> <p>Domestic forestry activities overlap the following PPWSAs and a Section 39 Permit will be required for each:<br/>Gander Lake PPWSA (Gander) – Districts 5 and 6<br/>Indian Arm Brook PPWSA (Campbellton) – Districts 6 and 8<br/>Indian Cove Pond PPWSA (Point of Bay) - District 8<br/>Stanhope Pond PPWSA (Lewisporte) – District 8<br/>Troke’s Cove Pond PPWSA (Embree/Little Burnt Bay) – District 8<br/>Southeast Pond PPWSA (Loon Bay) – District 8<br/>Jumpers Pond PPWSA (Birchy Bay) – District 8<br/>Dog Bay Pond Brook PPWSA (Stoneville) – District 8<br/>Dark Cove Pond PPWSA (Gambo) – District 5<br/>Northwest Pond PPWSA (Centreville – Wareham – Trinity)- District 5<br/>Hare Bay Pond PPWSA (Hare Bay) – District 5<br/>Deadman’s Pond PPWSA (Deadman’s Bay) – District 5<br/>Rocky Pond PPWSA (Musgrave Harbour) – District 5<br/>Indian Bay Brook PPWSA (Indian Bay) – District 5<br/>Barry’s Brook PPWSA (Gander Bay South) – District 5</p> |                           |                                                                         |
| <p>Silviculture activities overlap with the Gander Lake PPWSA (District 6) and a Section 39 Permit will be required. Silviculture activities and commercial harvesting activities can be combined on a single application for District 6.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                                                         |
| <p>The Steady Cove Pond PPWSA (Comfort Cove) has been removed from the proposed forestry activities in District 8, however, the PPWSA boundary has been recently amended. As this PPWSA is closed to development, the proposed works should be amended to exclude the area within the new boundary.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           | Forestry is updating the Steady Cove PPWSA to match the current version |
| <p>Groundwater Section<br/>Contact: Angela Buchanan groundwatersection@gov.nl.ca or 709-729-1671</p> <p>Please maintain 30 meter undisturbed buffer around drinking water wells:</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           | Forestry will not intrude within well locations                         |

| Tourism                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           | Action / Comments from Forestry                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| Contact Date April 21, 2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Response Date May 8, 2026 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Issue / Concern                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <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><b>Touring Corridor/Viewscapes</b></p> <p>TCAR recommends that any development near key touring corridors be managed to minimize negative visual impacts on scenic settings. There are a significant number of commercial cut blocks in this proposal without buffers along highways. The following cut blocks appear to be fully or partially visible from the highway which could have a negative impact on resident and visitor experience.</p> <p>The Trans-Canada Highway (Route 1) is a strategically important touring route for the province. Cut blocks along these routes should be designed and developed using buffers and/or landscape design techniques to minimize visibility of harvesting for travellers.</p> <p>Applicable commercial cut blocks (CC_) include: CC05524, CC05525, CC05523, CC05522, CC05521, CC05520, CC05031, CC06001, CC06004, CC06003, CC08023, CC08028, CC08029. Several additional highways also play a major role in connecting residents and visitors to tourism operators, gateways, and emerging destinations. These include Route 310, Route 320, Route 330, Route 331, Route 333, Route 340, Route 341, Route 352, and Route 350. Cut blocks along these routes are recommended to be designed and developed using buffers and/or landscape design techniques to minimize visibility of clear cuts.</p> <p>2</p> <p>Applicable commercial cut blocks (CC_) include: CC05528, CC05527, CC05519, CC05518, CC05517, CC05516, CC05507, CC05540, CC05515, CC05514, CC05513, CC05512, CC05511, CC05510, CC05509, CC05506, CC05504, CC05505, CC05533, CC05539, CC05003, CC05532, CC08022, CC08017, CC08018, CC08012, CC08030, CC08031, CC08033, CC05501, CC05502.</p> <p>A strong sense of arrival is critical to positioning Fogo Island as a high-value destination, as the initial arrival experience sets expectations for authenticity, remoteness, and quality, reinforcing the island's brand as a distinctive, premium travel experience worth the journey.</p> <p>Applicable commercial cut blocks include: CC05501, CC05502.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           | <p>Forest management harvesting activities are designed to follow 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 viewscapes may be designed, it is not reasonable to carry viewscapes design on large planning areas</p>                                                    |
| <p><b>Rivers and Trails</b></p> <p>Rivers and trails are key tourism assets, relied on by operators who depend on their pristine settings, remoteness, and ambiance to create and deliver premium tour experiences.</p> <p>The T'Railway Provincial Park is an 890-kilometre multi-use trail providing year-round recreational opportunities and is another high value tourism asset. Protection of its natural surroundings is essential for maintaining visitor appeal and the quality of experience it provides. Development within or adjacent to the Park should be managed in consultation with the Parks Division (TCAR) to minimize visual impacts and support the wilderness qualities that drive visitation.</p> <p>Applicable commercial cut blocks include: CC05524, CC05523, CC05522, CC05521, CC05520, CC05531, CC05539, CC06004, CC08024, CC08027.</p> <p>The Damnable Trail is a network of hiking trails developed largely from the remnants of old walking trails and hauling paths forged by the first settlers to the area. While many tourists have marveled at the scenic drive down to and around the Eastport Peninsula, few have retraced the paths of the first settlers through the boreal forest and along coastal headlands.</p> <p>Applicable commercial cut blocks include: CC05528.</p> <p>Parks Canada Terra Nova National Park. There are more than 80km of hiking trails in Terra Nova National Park of Canada ranging from half-hour strolls to strenuous multi-day hikes. Viewscapes assessments should be completed to assess impact.</p> <p>Applicable commercial cut blocks include: CC05525.</p> <p>The Wonder Shore trails cover dozens of kilometers of unspoiled nature along the Kittiwake Coast of Newfoundland and Labrador, from the Greenspond Causeway to the white sandy beaches of Lumsden. This trail system was first walked by the earliest settlers of Newfoundland and Labrador over 300 years ago, with many unique historic sites and scenic vistas to discover along the way. The Gander River is a premier Atlantic salmon fishing and angling river. Many outfitters, listed below, use this river for their angling and hunting businesses.</p> <p>Applicable commercial cut blocks include: CC05533, CC08004, CC08005, CC08006.</p> <p>The Terra Nova River is ecologically significant as a major freshwater system in central Newfoundland, providing critical Atlantic salmon habitat.</p> <p>Applicable commercial cut blocks include: CC05525, CC05524, CC05537, CC05014.</p> |                           | <p>Forestry will follow the T'Railway Trail buffer recommendations and will follow all water body buffer requirements specified by the Forestry EPP Guidelines. Specific requests by Tourism regarding viewsheds can be discussed with the District Ecosystem Manager</p>                                                                                                                                                                                                                   |
| <p><b>Outfitting</b></p> <p>Outfitting is an iconic and high yield tourism product for Newfoundland and Labrador. Each year, outfitters attract high end hunting and angling visitors whose spending supports local communities, guides, transportation providers, and private operators. These adventure experiences, combined with the natural environment of the Eastern Region, generate ongoing content shared through social media, photography, and other visitor-generated channels. The following outfitters should be contacted regarding potential impacts.</p> <p>Birchy Point Lodge For contact information, contact JuliaPenney@gov.nl.ca Banting Lake Lodge For contact information, contact JuliaPenney@gov.nl.ca</p> <p>Gander River Outfitters Email: matt@ganderriver.com Phone: 902-210-7766</p> <p>Beaver Lodge For contact information, contact JuliaPenney@gov.nl.ca White Cliff Lodge Email: whitecliffodgenl@gmail.com   Phone: 709-676-2931</p> <p>Caribou Pond Outfitting Ltd. Email: boyce.dove@hotmail.com   Phone: 709-535-6766</p> <p>Bear Cliff Lodge For contact information, contact JuliaPenney@gov.nl.ca</p> <p>River Run Outfitting &amp; Tours For contact information, contact JuliaPenney@gov.nl.ca</p> <p>Efford's Hunting Adventures Email: info@effordshunting.nf.ca   Phone: 709-543-2274</p> <p>Sylt Lake Tent Camp For contact information, contact JuliaPenney@gov.nl.ca</p> <p>Ocean Side Country Lodge Email: hazen.chippett@nf.sympatico.ca   Phone: 709-483-2002</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           | <p>Forest management activities in the NL Boreal forest use the clearcut silviculture harvesting system. These Forest management activities mimic the natural disturbance patterns of the boreal. While disturbance can have negative effects - forest managed disturbance is generally short term, and include successional silviculture application. Managed forests contribute to a resilient and healthy forest ecosystem. All outfitters were contacted and no issues were raised.</p> |

| Tourism                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               | Action / Comments from Forestry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| Contact Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Response Date |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| March 31, 2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | April 7, 2026 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Issue / Concern                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p>Tourism Stakeholders</p> <p>TCAR recommends consultations with the following stakeholders in efforts to mitigate conflict:</p> <p>Newfoundland and Labrador Outfitters Association Email: info@nloa.ca   Phone: (709) 639 5926</p> <p>Newfoundland and Labrador Snowmobile Federation Email: info@nlsf.org Phone: (709) 635 4395</p> <p>Indian Bay Ecosystem Corporation (IBEC) Email: ibec@eastlink.ca   Phone: 709-522-3222</p> <p>Atlantic Salmon Federation Email: savesalmon@asf.ca   Phone: 1-800-565-5666</p> <p>Adventure Central Newfoundland Email: shannon@adventurecentral.ca Phone: (709) 486 4345</p> <p>Damnably Trail Email: hike@damnablytrail.com   Phone: 709-725-8548</p> <p>Fogo Island Inn Email: sales@fogoslandinn.ca   Phone: 709-658-3444</p> <p>Shorefast Email: hello@shorefast.org</p> <p>Parks NL - Notre Dame Provincial Park, Deadman's Bay Provincial Park, Windmill Bight Provincial Park Email: info@parksnl.ca   Phone: (709) 464 3553</p> <p>Windmill Bight Park (Town of Lumsden) Email: townoflumsden@nf.aibn.com   Phone: 709-530-2309</p> <p>South West Pond Park For contact information, contact JuliaPenney@gov.nl.ca</p> <p>The Homestead Adventures Glamping Email: thehomesteadadventures@gmail.com   Phone: 709-986-1008</p> <p>A Day's Getaway RV Park For contact information, contact JuliaPenney@gov.nl.ca</p> <p>Hare Bay Adventures Email: harebayadventures@gmail.com   Phone: 709-537-2028</p> <p>Joint Kittiwake Council Town of Gambo: Email: lorne.greene@townofgambo.com   Phone: 709-674-4476</p> <p>Town of Hare Bay: Email: townmanager@harebay.ca   Phone: 709-537-2187</p> <p>Town of Dover: Email: townofdover@persona.ca   Phone: 709-537-139 Town of Centreville-Wareham-Trinity: Email: townofcwt@bellaliant.com   Phone: 709-678-2840 Town of Indian Bay: Email: TOIB1971@gmail.com   Phone: 709-678-7206</p> <p>Town of Fogo Island Email: info@townoffogoisland.ca   Phone: 709-266-1320</p> |               | Known stakeholders have been contacted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p>Recommendations</p> <p>Mitigation measures should be implemented to preserve visitor experience and views along identified Routes and highways. Forestry harvest blocks should be designed using landscape techniques that reduce the visual effects of clear cuts.</p> <p>Forest harvesting and new access roads have the potential to negatively affect tourism businesses. Forestry should coordinate with outfitters during the big game season (September 15 to December 31) and spring bear harvest (May 1 to July 15).</p> <p>The proponent should prepare and submit a Tourism Stakeholder Consultation Plan that identifies potential impacts of forestry operations and outlines how harvesting, road construction, and silviculture activities will be adapted to reduce those impacts. Considerations should include wildlife populations, hunting success rates, wilderness settings, and potential increases in resident access. TCAR should review this plan before operations begin.</p> <p>Commercial forest harvesting near Provincial Parks, including the T Railway Provincial Park, should be carried out in consultation with the Parks Division (TCAR) to ensure cut blocks are not visible to park visitors and that activities occur outside park operating seasons. It is recommended that the proponent engage with Julia Penney (JuliaPenney@gov.nl.ca, 709 729 0559) regarding forestry activities in Zone 3 and preparation for Environmental Assessment.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               | Forest management harvesting activities are designed to follow 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 views along may be designed, it is not reasonable to carry viewscape design on large planning areas - Forest ecosystem plans are referred to all known stakeholders and are submitted to EA for public review. |

| Land Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |               | Action / Comments from Forestry                                                                                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Contact Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Response Date |                                                                                                                                                                                                                                                                         |
| April 21, 2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | May 4, 2026   |                                                                                                                                                                                                                                                                         |
| Issue / Concern                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |               |                                                                                                                                                                                                                                                                         |
| <p>LMD - Planning:</p> <p>The proposed forestry plan boundaries overlap with numerous Cottage Planning Area Freezes, Cottage Development Areas, Crown Reserves, and Infilling Limits. 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 <a href="http://www.gov.nl.ca/landuseatlas/details/">www.gov.nl.ca/landuseatlas/details/</a>.</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> |

| Agriculture                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           | Action / Comments from Forestry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| Contact Date April 21, 2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Response Date May 4, 2026 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Issue / Concern                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <p>LMD - Agriculture Lands:</p> <p>The Land Management Division (Agriculture Lands Section) has reviewed The New 5-Year Development Plan submitted by Forestry which encompasses Zone 3. Within these districts of the Province, agriculture operations are substantial on a number of levels from Agriculture Development Areas (ADA's), Agriculture Areas of Interest (AOI's), issued Crown Land Agriculture Leases/Licenses, and Crown Land applications for Agriculture development which includes licenses for home gardening. The Land Management Division (Agriculture Lands Section) would like to recognize the future growth of the industry and the requirement of additional unallocated Crown Land within the Plan's area aside from those noted in the plan.</p> <p>The following statements can be made concerning this review process; specific boundaries can be provided upon request:</p> <p>Existing agricultural operations should not be impacted by the proposed activities. Post harvesting silviculture operations must be referred to the Land Management Division (Agriculture Lands Section) before activities take place. Silviculture activities remain the main concern for agricultural expansion due to lands that will not be available for extended periods of time for agriculture.</p> <p>ADA and AOI boundaries can be found on the Land Use Atlas or can be provided by contacting the Land Management Division.</p> <p>Home gardening is prominent within Zone 3, and they should be recognized as part of the plan. Home gardening should not be confined to areas already developed as the Agriculture Lands Section continues to receive applications from Crown Lands for such development.</p> <p>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> <p>If the Forestry Development Plan activities should interfere with the agriculture properties and future production, the Land Management Division will work with Forestry to mitigate any potential issues.</p> |                           | <p>Forestry harvesting activities do not generally impact agriculture activities. Agriculture areas identified will not be scheduled for Silviculture and all Silviculture proposal projects are vetted through I.L.U.C. Home garden licenses are referred to Forestry by Crown Lands and vetted through the standard referral process. Forest access roads are designed for harvesting activities and construction standards are for forest harvesting requirements and anticipated time periods. Agriculture must consult with the District Ecosystem Manager regarding other use. Forestry will work with Agriculture on any issues.</p> |

Forestry harvesting activities do not generally impact agriculture activities. Agriculture areas identified will not be scheduled for Silviculture and all Silviculture proposal projects are vetted through I.L.U.C. Home garden licenses are referred to Forestry by Crown Lands and vetted through the standard referral process. Forest access roads are designed for harvesting activities and construction standards are for forest harvesting requirements and anticipated time periods. Agriculture must consult with the District Ecosystem Manager regarding other use. Forestry will work with Agriculture on any issues.

| Crown Lands                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | Action / Comments from Forestry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| Contact Date April 21, 2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Response Date May 4, 2026 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Issue / Concern                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <p>Crown Lands:</p> <p>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.</p> <p>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: <a href="https://www.gov.nl.ca/landuseatlas/details/">https://www.gov.nl.ca/landuseatlas/details/</a>. 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.</p> <p>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.</p> <p>The proposed boundary partially overlaps the Wind Energy Land Reserve and is subject to the Wind Energy Land Reserve Order issued under the authority of the Lands Act. Applications for Crown lands are limited within the reserve area. Activities not requiring title to Crown lands may be permitted, FAL is unable to accept applications for activities that require Crown land title (including the clearing of lands and placing a structure) except where such applications are allowed under the Wind Energy Land Reserve Order.</p> <p>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.</p> <p>All constructed resource roads for this project are to remain open for public access.</p> <p>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> |                           | <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.</p> <p>Forest management activities do not require any form of Crown Title and plans are available for Wind Energy review and discussion on any mitigations from forestry. 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> |

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| Mines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                            | Action / Comments from Forestry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| Contact Date March 4, 2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Response Date May 21, 2026 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Issue / Concern                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <p>Overlap of cutting areas with quarry sites</p> <p>Parties engaged in domestic and commercial harvesting should not enter or closely approach quarry sites and should be advised of the potential hazards that would be associated with entering a quarry site.</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>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. 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 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 may be established following consultation with the District Ecosystem Manager.</p> |
| <p>Overlap of cutting areas 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 requests that mines provide signage for any areas that reasonably are required for public safety. Mineral exploration hazards from equipment must be carried out on public land with sufficient safeguards and warnings to the public. Excavations or quarries 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 may be established following consultation with the District Ecosystem Manager.</p>    |
| <p>Overlap of cutting areas with former mine workings</p> <p>It is possible that some of the cutting areas could overlap areas underlain by former mine workings. The Department of Energy and Mines considers that former mine workings present risks to site developments and human activities. Underground mine workings can suddenly and unexpectedly fail by caving in or collapsing and surface activities could contribute to such a failure. Harvesters are advised to avoid all areas known to contain, or suspected to contain, former mine workings. Forestry should exclude areas known to contain former mine workings from the published cutting area, as per the guidance below:</p> <p>To ensure avoidance of former mine workings, Forestry is directed to obtain the shapefile for Mineral Occurrences (MODS) from the Department's Geoscience Atlas (<a href="https://gis.geosurv.gov.nl.ca/">https://gis.geosurv.gov.nl.ca/</a>) – select the 'Mineral Occurrences (MODS)' layer in the Map Layers layer group. Select all points with STATUS = "Past Producer (Dormant)" or "Past Producer (Exhausted)". Apply a buffer of at least 250 m around each point. Subtract the resulting areas from the cutting area or review further to decide on appropriate action.</p> <p>Please advise if you have any questions about the above or would like to discuss.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                            | <p>Forest activities are conducted almost exclusively on Crown Land that has unfettered public access. Domestic and commercial cutting areas are used for multiple activities, such as Snowmobiling, ATV riding, biking, hunting, berry picking, and backpacking in addition to commercial and domestic harvesting.</p>                                                                                                                                                                                                                                                         |
| <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>Forestry has included the table of values in the plan</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| Mines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               | Action / Comments from Forestry                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------|
| Contact Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Response Date |                                                                     |
| April 21, 2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | June 17, 2026 |                                                                     |
| Issue / Concern                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |                                                                     |
| <p>Specific overlaps</p> <p>Mineral overlaps with cutting areas</p> <p>Zone 3 is subject to an overall high volume of mineral exploration activity. Accordingly, many of the cutting areas overlap mineral licences. The cutting areas listed below are of special note because they correspond to areas having experienced higher levels of past exploration activity and therefore can be expected to experience higher levels of exploration activity in the future. However, the highest levels of future mineral exploration activity are most likely for those areas where activities such as diamond drilling and trenching have been approved in the past few years.</p> |               | Forestry acknowledges overlap with mineral land use on public land. |

| Natural Areas                                                                                                                                                     |               | Action / Comments from Forestry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| Contact Date                                                                                                                                                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| April 22, 2026                                                                                                                                                    | June 10, 2026 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Issue / Concern                                                                                                                                                   |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| FMD 04: Commercial block CC04536 extends into the central portion of the Rodney Pond Proposed Ecological Reserve                                                  |               | CC04536 is a domestic vs. commercial area . The overlap is due to our proposed domestic area following the natural boundaries, which include RiverHead Brook and the existing road. The Rodney Pond Reserve boundary is simply straight lines and doesn't consider the existing road or river (example below – purple is nasp, while yellow is proposed domestic area). These are minor overlaps, but would make it much easier for the general public and domestic user to follow. The final version of the proposed reserve might consider this? However, we will adjust the our proposed domestic boundary to avoid overlap. |
| FMD 04: road CC04013 (commercial) is located within 500 m of Rodney Pond.                                                                                         |               | Commercial area in green, this road goes off of the main existing road to River Head which makes most sense for access and building away from the NASP. We have a general arrangement to not construct any new roads within 500m of NASP area to help avoid any infringement. In this particular case, the proposed road is actually starting from an existing road and running Southeast, away from NASP area. Upon further discussion agreement was made on this road with Natural Areas                                                                                                                                      |
| FMD 05: There is overlap between the northwestern, western, and southern boundaries of the Banting Lake Proposed Ecological Reserve and commercial block CC05506; |               | This is a domestic vs commercial area. However, the block boundary can be revised against the official proposed NASP shape.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| road CC05013 (commercial) is located within 500 m of Gambo Pond Proposed Ecological Reserve;                                                                      |               | We will update as this is a GIS error, where the road has to be shifted by 20m to be outside of 500m buffer on protected area                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| there is also significant overlap between the Indian Bay Municipal Protected Area (CPCAD layer) and commercial block CC05515.                                     |               | We are unclear on this CPCAD layer, can you please forward along for our review                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| Wildlife                                                                                    |              | Action / Comments from Forestry                                           |
|---------------------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------|
| Contact Date                                                                                |              |                                                                           |
| April 22, 2026                                                                              | July 2, 2026 |                                                                           |
| Issue / Concern                                                                             |              |                                                                           |
| Wildlife requested an area near Point Leamington (Snake Lake Caribou Herd) could be removed |              | Forestry will remove the area as there is no contractors there currently. |

| PAO             |             | Action / Comments from Forestry |
|-----------------|-------------|---------------------------------|
| Contact Date    |             |                                 |
| April 22, 2026  | No Response |                                 |
| Issue / Concern |             |                                 |