



**DEPARTMENT OF NATURAL RESOURCES**

**FORESTRY SERVICES BRANCH**

**2015 ENVIRONMENTAL PROTECTION GUIDELINES**

**FOR FORESTRY OPERATIONS IN NEWFOUNDLAND  
AND LABRADOR**

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## FORWORD

The 2015 Environmental Protection Guidelines for Forestry Operations in Newfoundland and Labrador is an updated version of the guidelines prepared in 1998 and has been developed through a consultative process with provincial Forest Managers and Planners, as well as other resource managers and stakeholders in the province. The Guidelines are intended to be stand level, on-the-ground guidelines to be used by Forest Managers and operators to ensure sustainable use of the forest resource without degrading the environment. More specifically, the Guidelines are designed to prevent and control degradation of soil, water, and vegetation and thus maintain healthy forest ecosystems.

The Guidelines set out sound and practical measures and are rooted in the best available scientific information. To ensure the incorporation of new research findings and technologies, the Guidelines will be reviewed periodically and adjusted to reflect any new ideas.

To facilitate use, the Guidelines are structured by forestry activity and include separate sections on harvesting, road construction, silviculture, forest protection, and operations within protected water supply areas. Each of these sections is sub-divided into a Planning section and a Conduct of Operations section and each list all the guidelines relevant to carrying out this activity.

These Guidelines will accompany Corner Brook Pulp and Paper's annual Certificate of Managed Land and will also be associated with the issuance of commercial cutting permits. Compliance with these guidelines will be monitored by Departmental staff.

These Environmental Protection Guidelines will complement the Newfoundland and Labrador Forest Service Planning Guidelines. Broader, landscape level issues will be addressed in the Department's new 20 Year Sustainable Forest Management Strategy. The recent revisions to the environmental protection guidelines, planning guidelines and provincial strategy will ensure that forestry activities in the province are carried out in an ecologically sound and sustainable manner.

The Department of Natural Resources (DNR) will continue to use science as a basis for refining and implementing sustainable forest policies and practices in the province. In particular, the development of these Environmental Protection Guidelines will continue to be an evolving process within which DNR will incorporate the best available information about forest ecosystems and sustainable forest management concepts in a timely fashion - through adaptive management and other innovative, scientific approaches.

## 1.0 HARVESTING GUIDELINES

### 1.1 Planning of Operations

#### 1.1.1 Permits Required

1. When temporary water crossings are required to facilitate travel of harvesting equipment, the location and type of all water crossings must be submitted to the Department of Environment and Conservation (DEC). A permit is required from Water Resources Management Division of DEC, for any water identified on the latest 1:50,000 topographic maps. Appropriate protection (permit and Letter of Advice) is still required for streams greater than 1.0 m in width (at its narrowest point from the high water mark) not found on the 1:50,000 topographic maps. The intent of these measures is to safeguard water quality and fish habitat.
2. All waste disposal sites require a valid permit under the *Environmental Protection Act*. Application for approval can be made by contacting the nearest Government Services Centre.
3. Timber harvesting is considered a development under the *Urban and Rural Planning Act* and, when this activity is proposed within a planning area boundary or within 400 meters of a protected road, a development permit is required from Service NL, before any activity takes place.

#### 1.1.2 Consultation Required

1. The Parks and Natural Areas Division (PNAD) of Department of Environment and Conservation will be consulted during the preparation of each District five-year operating plan. Where harvesting is proposed within one kilometer of an ecological reserve, wilderness reserve, provincial park or proposed reserve, PNAD will be expected to identify/discuss any concerns during the planning consultation process. Also, access roads will not be located within 500 m of the boundary of an ecological reserve, wilderness reserve, provincial park or proposed reserve, without first consulting PNAD.
2. The Wildlife Division (WD) of Department of Environment and Conservation will be consulted on timber harvesting within woodland caribou habitat during the preparation of each District five-year operating plan
3. Rare and/or listed flora will be protected through mitigative measures, in consultation with the Wildlife Division (WD) of Department of Environment and Conservation.
4. Where specific forest cover is a requirement for the management of moose or other wildlife species, such areas will be identified by the Wildlife Division.

5. The impacts of forest operations on Newfoundland marten (hereafter referred to as marten) have been an ongoing issue. Until provincial guidelines are developed for marten habitat, forestry activities within known marten recovery areas will require consultation with the Wildlife Division, during the preparation of five-year operating plans.
6. During the preparation of five-year operating plans, areas identified as “Sensitive Wildlife Areas” require consultation with the Wildlife Division.
7. The Historic Resources Division will be contacted during the preparation of the five-year operating plans to determine the location of historic resources and appropriate mitigation measures.

### **1.1.3 Planning**

Planning forest operations for both Industry and Crown may include, but is not limited to:

- (i) boundaries of protected public water supplies (if applicable)
- (ii) existing and proposed access roads
- (iii) general location of extraction trails and landing locations
- (iv) areas sensitive to erosion
- (v) buffer zones around water bodies
- (vi) location of approved stream crossings
- (vii) location of fuel storage
- (viii) sensitive wildlife areas as shown in the five-year operating plan.
- (ix) sensitive fish habitat (e.g., salmonid spawning and rearing areas) identified in consultation with DFO.

### **1.1.4 Nutrient Poor Sites**

If deemed necessary to harvest nutrient poor sites (e.g., those typed as Poor or Scrub on the Provincial Forest Inventory forest type maps), all efforts will be made to ensure such sites are regenerated in a timely manner.

## 1.2 Conduct of Operations

### 1.2.1 Minimizing Erosion and Disturbance

1. When extraction trails and winter roads are to be constructed, soil disturbance and impacts on water bodies are to be minimized. The operator will use culverts and/or temporary bridges, depending on site conditions, in order to minimize erosion and sedimentation, avoid restricting stream-flow, and ensure fish passage in fish-bearing streams. Erosion control measures (e.g., laying down brush mats and the construction of diversion ditches for water run-off) are to be maintained while an extraction trail is in use. The trail is to be left in an environmentally acceptable condition thereafter. All temporary crossings are to be removed at the end of the operating season. As well, when an extraction trail is located on steep ground and is no longer in use, cut-off ditches and push-lanes must be created.
2. No more than 6 % of the forested floor within the harvested land base of an operating area can be disturbed by equipment. In situations where specific operating areas require more than 6 % disturbance to capture available timber, the operator is required to obtain approval and then rehabilitate (i.e., leave the area in a condition suitable for successful forest regeneration and growth) the area to reduce the total net disturbance to the 6 % maximum. **Disturbance is defined as per the Ground Disturbance Survey Guidelines developed by the NL Forest Service.**
3. Heavy equipment and machinery are not permitted in any waterbody, on a wetland or a bog (unless frozen) without a permit from Water Resources Management Division the Department of Environment and Conservation and without contacting the DFO Area Habitat Biologist.
4. In areas prone to erosion and silting:
  - (i) conduct winter logging (i.e., harvest during winter) , or
  - (ii) place slash on extraction trails if conventional equipment is operating in an area.
5. Any forestry operation that directly or indirectly results in chronic sedimentation under normal conditions entering a waterbody must be dealt with immediately by notifying DFO's Area Habitat Biologist and /or the District Manager within 24 hours.
6. Woody material of any kind (trees, slash, sawdust, slabs, etc.) is not permitted to enter a waterbody. Depositing woody material on ice within the high water floodplain of any waterbody is also prohibited.
7. To minimize potential for erosion and sedimentation, temporary waterbody crossings shall:
  - (i) have stable approaches

- (ii) be at right angles, wherever possible, to the waterbody
- (iii) be located where channels are well defined, unobstructed, and straight
- (iv) be at a narrow point along the waterbody
- (v) allow room for direct gentle approaches wherever possible

8. Extraction trails and landings shall not be established within 20 metres of a waterbody.

### **1.2.2 Archaeological Find**

When an archaeological site or artifact is found, the *Historical Resources Act* requires that all development temporarily cease in the area and the discovery be reported to the Provincial Archaeology Office (709-729-2462). The Provincial Archaeology Office will respond immediately and will have assessment requirements and/or mitigation measures in place within seven days as agreed to by the Provincial Archaeology Office and the operator. Forestry activity can then continue.

### **1.2.3 Timing of Operations**

- 1. Harvesting is not permitted within woodland caribou calving and post-calving areas from May 15 - July 31. Calving areas will be identified by WD during the 5 year planning process.
- 2. Harvest scheduling may be modified during the migration of wildlife (e.g., caribou, waterfowl) and during temporary wildlife concentrations. Areas of concern and mitigation measures will be identified as part of the 5 year planning process.

### **1.2.4 Leaving Buffers and Wildlife Trees**

- 1. A 20-metre, no harvesting activity buffer zone shall be established around all water bodies that are identified on the latest 1:50,000 topographic maps and along streams greater than 1.0 metre in width that do not appear on the maps. Where the slope is greater than 30% there shall be a no-harvest buffer of  $20\text{ m} + (1.5 \times \% \text{ slope})$ . All equipment or machinery is prohibited from entering waterbodies; thus, structures must be created to cross over such waterbodies for the protection of aquatic habitat. Every reasonable effort will be made to identify intermittent streams and they will be subject to this buffer requirement.

The District Manager must adjust the specified buffer requirements in the following circumstances:

- (i) the no harvesting activity buffer can exceed the 20 meters for sensitive fish habitat (e.g., salmonid spawning habitat).
- (ii) a 50-metre, no harvesting activity buffer will be maintained around known black bear denning sites (winter) or those encountered during harvesting. These den sites must be reported to the Wildlife Division.
- (iii) no forestry activity is to occur within 800 metres of an active bald eagle nest or osprey nest during the nesting season (March 15 to July 31) and 200 metres during the remainder of the year. For other raptor species, like hawks, falcons, and owls) no forestry activity is to occur within 160 metres of a known nest at any time of the year. The location of any raptor nest site must be reported to the Wildlife Division.
- (iv) all hardwoods within 30 metres of an active beaver lodge are to be left standing.
- (v) a minimum 50-metre, no-cut, buffer will be maintained from the high water mark in Sensitive Wildlife Areas for waterfowl including breeding, moulting and staging areas. These sites will be identified by the Canadian Wildlife Service (CWS) and/or the Wildlife Division.

2. A minimum average of 10 snags (i.e., standing dead trees) or other suitable living trees per hectare shall be left individually or as small clumps on sites identified as habitat for wildlife (i.e., nesting and perching sites for birds, den sites for particular wildlife species, etc.). Preference should be given to the largest trees (i.e., standing dead trees or live hardwoods). Research has shown that larger diameter snags are more valuable (last longer and contribute more to the biomass pool) than smaller diameter snags. Consequently, the trees retained should be ones which are from the dominant or co-dominant portion of the stand and be left in a fairly evenly distributed manner.

### **1.2.5 Petroleum Products**

1. In the event of a spill and/or leak of petroleum products, the owner and/or the operator must make every effort to first, contain, and second, clean up the spill. Spills in excess of 70 liters, and all leaks must be reported by calling the following spill report line:

**Environmental Emergencies Spill Report Line**  
**Canadian Coast Guard**  
**1-(709) 772 – 2083 collect or 1-(800) 563-9089**

In this province, spills and leaks must be remediated in accordance with the *Guidance Document for the Management of Impacted Sites* prepared by Pollution Prevention Division of DEC. (see Appendix I)

2. No heavy equipment or machinery is to be refueled, serviced, or washed within 30 metres of a waterbody. Gasoline or lubricant depots must be placed at least 100 metres from the nearest waterbody. All fuel-storage tanks (including GEEP tanks) must be registered with Service NL and installed in accordance with the *Storage and Handling of Gasoline and Associated Products Regulations, 2003* as amended, under the *Environmental Protection Act*.
3. Used oil storage, handling and disposal is to comply with the *Used Oil Control Regulations*, NLR, 82/02 under the *Environmental Protection Act*
4. Above ground storage tanks shall be surrounded by a dyke. The dyked area will contain not less than 110% of the capacity of the tank. The base and walls of the dyke shall have an impermeable lining of clay, concrete, solid masonry or other material, designed, constructed and maintained to be liquid tight to a permeability of 25L/m<sup>2</sup>/d. There shall be a method to eliminate water accumulations inside the dyke. Construction and installation standards are clearly listed in section 27 of the *Storage and Handling of Gasoline and Associated Products Regulations, 2003* as amended, under the *Environmental Protection Act*.
5. Contaminated soil or snow must be disposed of at an approved treatment facility.

### **1.2.6 Clean Up of Site**

Waste material is to be disposed of at an approved waste disposal site with the prior permission of the owner/operator. Prior to disposal it must be contained in a manner not to attract wildlife. All equipment and waste materials are to be removed from the operating area when operations are completed.

## **2.0 FOREST ACCESS ROADS GUIDELINES**

### **2.1 Planning of Roads**

#### **2.1.1 Permits Required**

1. Any alteration within 15 metres of a natural waterbody (i.e. any water identified on the latest 1:50,000 topographic map) or development within a protected public water supply area, will require prior approval by the Water Resources Management Division of the DEC. (For alteration of a waterbody, a permit is required under Section 48 of the *Water Resources Act*, SNL 2002 cW-4.01. For any development in a protected public water supply area a permit is required under Section 39(6) of the *Water Resources Act*, SNL 2002 cW-4.01.) Alteration of a waterbody may include culvert installations, stream crossings (temporary or permanent), outfalls, infilling; or bridge, dam, and wharf construction. A Letter of Advice is also required from DFO for any alterations. Appropriate protection (permit and Letter of Advice) is still required for streams greater than 1.0 m in width not found on the 1:50,000 topographic map.

2. In addition to approvals from Water Resources Management Division and DFO, approvals are also required for culverts, bridges and abutments on navigable waters (any waterbody capable of being navigated by floating vessels of any description for the purpose of transportation, commerce or recreation. This includes both inland and coastal waters) from Transport Canada.

3. Resource road construction or any forestry activity is considered a development under the *Urban and Rural Planning Act*. Where this activity occurs within a planning area boundary or within 400 metres of a protected road, a development permit is required from Service NL before any activity takes place.

### **2.1.2 Areas to Avoid**

Forest access roads, borrow pits, and quarries shall, wherever possible:

- (i) deltas, floodplains or fluvial wetlands
- (ii) terrain with high potential for erosion
- (iii) known sensitive wildlife areas such as:
  - caribou areas (calving, post calving, migrations routes, rutting areas, and winter areas)
  - waterfowl areas (nesting and staging areas)
  - raptor nest sites
  - species at risk habitat, rare flora or fauna habitat, and other unique habitats as determined by qualified authorities
- (iv) known sensitive fish habitat areas such as spawning and rearing grounds
- (v) historically significant areas such as archaeological sites
- (vi) existing reserves such as parks (municipal, provincial, national), wilderness areas, ecological reserves and wildlife reserves
- (vii) riparian buffer areas

### **2.1.3 Waterbody Crossings**

Waterbody crossings shall:

- (i) have stable approaches
- (ii) be at right angles, wherever possible, to the waterbody
- (iii) be located where channels are well defined, unobstructed, and straight
- (iv) be at a narrow point along the waterbody
- (v) allow room for direct gentle approaches wherever possible

### **2.1.4 Burrow Pits and Quarries**

With respect to borrow pits and quarries, the operator shall wherever possible, avoid:

- (i) minimize the number of new borrow areas opened for construction and/or maintenance
- (ii) use existing borrow pits whenever practical
- (iii) be in possession of a valid quarry permit from the Mineral Lands Division, DNR, for borrow pits outside resources roads right of way, prior to aggregate extraction activities as per the *Quarry Materials Act*.
- (iv) not locate borrow pits and quarries in sensitive areas as identified by planning processes

### **2.1.5 Wildlife Values**

1. Wherever possible, forest access roads shall not obstruct wildlife movement. The following guidelines should be followed:

- (i) roads should be of low profile (less than 1 m above the surrounding terrain)
- (ii) slash and other debris shall be removed or buried
- (iii) the slope of ditches and road banks shall be minimized

2. Where road construction is to occur around identified waterfowl breeding, moulting and staging areas, mitigating measures will be identified during the 5 year planning process.

### **2.1.6 Road Access**

1. Areas proposed for harvest using winter roads shall not be harvested without an approved reforestation plan.

2. A regeneration survey is required for all forest areas that will be affected by access due to road decommissioning and/or bridge/stream crossing removals. Prior to decommissioning, an approved (i.e. by Silviculture and Research Section of the Forest ecosystem Management Division) reforestation plan is required for all areas that fail to meet the provincial silviculture stocking standards.

## **2.1.7 Decommissioning Roads**

On a site specific basis, roads may be decommissioned. Levels of decommissioning include:

- (i) barring access
- (ii) removal of watercourse crossing(s)
- (iii) restoration of roadway including planting of trees.

Decommissioning is as decided through the planning team process or, under compelling circumstances, as decided by DNR (e.g., emergency closures).

## **2.2 Construction and Decommissioning of Roads**

### **2.2.1 Road Construction**

1. There shall be no bulldozing or burying of merchantable timber or poor utilization of merchantable softwoods and hardwoods during cutting of road right-of-ways. All merchantable timber shall be utilized and processed.
2. Where brush mat or corduroy is required, sub-merchantable or non-merchantable stems should be used first. In the event that these are not present or sufficient, permission must be obtained from a DNR official prior to merchantable stems being utilized. Stems are to be placed in a “butt to top” alternating fashion for the entire length of the area to be brush matted.
3. Earth shall be excavated as required to complete earth cuts, ditching, sub-excavation and shall include hauling, handling and disposal as directed. Only with the approval of the Engineer or Inspector may excavation occur outside the limits of the roadway for the purpose of obtaining suitable and/or sufficient material to complete embankments. All holes/pits are to be rehabilitated.
4. Fill materials for road building must not be obtained from any waterbody, from within the floodplain of any waterbody, or within the 30m no-grub zone.

## 2.2.2 Pits and Quarry Activity

1. Where borrow pit or quarry activity is likely to cause sediment-laden run-off to contaminate a waterbody, sediment control measures such as filter fabric berms or sedimentation ponds are to be installed. Contact is to be made with the DNR official prior to construction where such conditions exist.
2. Overburden or grubbed material pushed off any gravel pit site must be retained in a manner that allows it to be pushed back into the pit after construction and spread in a neat and tidy fashion.
3. Existing pits are to be used, where possible, to minimize the opening of new pits.
4. Borrow pits are to be located at least 50 metres from the nearest waterbody.

## 2.2.3 Working near Waterbodies and In-stream Work

1. A "no-grub" zone of 30 metres of undisturbed ground vegetation must be maintained around any waterbody crossing to minimize the damage to the lower vegetation and organic cover, thus reducing erosion potential.
2. Trees are to be felled away from all waterbodies. Slash and debris should be piled above the high water mark so that it cannot enter waterbodies during periods of peak flow.
3. Right-of-way widths at waterbody crossings should be kept to a minimum, preferably to the width of the driving surface plus water control features.
4. Unnecessary side casting or backfilling in the vicinity of waterbodies is not permitted. Where topographical constraints dictate that the roadbed must be constructed adjacent to a waterbody, road slope stabilization is to be undertaken at the toe of the fill (an area where active erosion is likely). The placement of large riprap, armour stone or slope stabilization material is recommended in such areas.
5. Take-off ditching should be used on both sides of the road or in conjunction with culverts to divert the ditch flow off into the woods or stable vegetation areas before reaching the waterbody. The ditch itself shall not lead directly into the waterbody.
6. Grades in excess of 10% shall have culverts with baffle/ditch blocks on one end and cut-off ditches every 150 meters along the road. A baffle/ditch block can be constructed from gabion baskets, wooden structures, rock walls, or other approved materials. Unless otherwise specified, the height of the baffle shall be a minimum of one-half the diameter of the culvert requiring the baffle.

7. When working near waterbodies, road building operations causing erosion or siltation are to be suspended during periods of intense rainfall or when soils are saturated.
8. Any forestry operation that directly or indirectly results in sediment and/or turbid water entering a waterbody must be dealt with immediately. See Guideline 1.2.2.5 for further information.
9. Fording of equipment for stream crossing installation is to be kept to a minimum. Equipment activity in water crossing areas is to be kept to a minimum. All work is to be carried out from dry stable areas. Permission for exceptions must be obtained from DFO.
10. Heavy equipment and machinery are not permitted in any waterbody, on a wetland or a bog (unless frozen) without a permit from the DEC and without contacting the DFO Area Habitat Biologist.
11. Exposed mineral soil shall be stabilized during bridge construction and culvert installation.
12. All in-stream work is to be performed as per the DFO March 1998 "Guidelines for Protection of Freshwater Fish Habitat in NL." Marine Environment and Habitat Management Division Science Branch.
13. Cofferdams are to be used to separate work areas from the stream when installing bridges or similar structures requiring abutments, or footings.
14. Water pumped from work areas and cofferdams is to be directed into a settling pond or stable vegetation areas.
15. Not more than one-third of the stream width is to be blocked at any one time.
16. The stream banks are to be rehabilitated upon completion and removal of a cofferdam.
17. All culvert in fish bearing streams are to be installed as per the DFO March 1998 "Guidelines for Protection of Freshwater Fish Habitat in NL." Marine Environment and Habitat Management Division Science Branch.

18. In fish-bearing streams;
  - (i) culverts having a diameter equal to or exceeding 2000mm should be countersunk a minimum of 15% of the diameter below the streambed elevation,
  - (ii) a minimum water depth of 200mm should be provided throughout the culvert length. To maintain this water depth at low flow periods an entrance/downstream pool should be constructed,
  - (iii) downstream outlet pools are of particular importance for long culverts or culverts to be installed on steep slopes.
19. In-stream work should be scheduled to avoid potential adverse impacts on spawning activities, egg incubation, spawning habitat and fish migration in consultation with the DFO Area Habitat Biologist.

#### **2.2.4 Archaeological Find**

When an archaeological site or artifact is found, the condition in Guideline 1.2.2 should will apply.

#### **2.2.5 Petroleum Products**

In the event of a spill and/or leak of petroleum products, see Guideline 1.2.6.1 for further details.

Guidelines 1.2.5.2 to 1.2.5.5 relating to petroleum products also apply in road construction and decommissioning operations.

#### **2.2.6 Winter Roads**

As with all season roads, soil disturbance and impacts on waterbodies are to be minimized with winter roads. Culverts or temporary bridges are to be used. Erosion control measures are to be maintained while the winter road is in use and, thereafter, left in an environmentally acceptable condition. All temporary crossings are to be removed at the end of the operating season and an inspection done by a DNR official, engineer or other qualified person to ensure any remediation that may be required is applied.

#### **2.2.7 Decommissioning Roads**

1. When roads are decommissioned or barred by gating or ditching or placement of obstacles, appropriate signage warning of any hazardous condition shall be placed in open view.

2. When decommissioning is through removal of watercourse crossings, areas adjacent to former culverts or bridge locations shall be stabilized to reduce potential for erosion. Appropriate signage shall also be placed.
3. When decommissioning roads by replacing soil, overburden and other natural obstacles on former roadway (so as to deny vehicular access and to enable planting in order to restore productive forest on the site), standard precautions such as silt fencing shall be used to prevent entry of silt in waterways.
4. Decommissioning shall not normally be undertaken until all necessary reforestation activities beyond the decommissioning point have taken place.

## **3.0 SILVICULTURAL GUIDELINES**

### **3.1 Planning of Silviculture**

#### **3.1.1 Permits Required**

Silviculture is considered a development under the *Urban and Rural Planning Act*. Where this activity occurs within a planning area boundary or within 400 metres of a protected road, a development permit is required before any activity takes place.

### **3.2 Conduct of Silviculture Operations**

#### **3.2.1 Preventing Erosion**

To prevent erosion on sites proposed for row scarification, every effort should be made to follow the contours where slopes exceed 15%. If in such instances scarification has to occur parallel to the slope, the scarified trenches are to be intermittent (i.e., for every 20 m of trench, an un-scarified section 2 m in length should be left).

#### **3.2.2 Protection of Waterbodies**

1. Heavy equipment and machinery are not permitted in any waterbody, on a wetland or a bog (unless frozen) without a permit from the DEC and without contacting the DFO Area Habitat Biologist.
2. Any forestry operation that directly or indirectly results in sediment and/or turbid water entering a waterbody must be dealt with immediately. See Guideline 1.2.1.5 for further information.
3. Trees thinned during pre-commercial thinning, diameter limit thinning, commercial thinning or any other silvicultural treatment shall not be felled into waterbodies.

### **3.2.3 Placement of Windrows**

Where slash is piled into windrows, windrows should be located where slash cannot be washed into streams at peak flooding conditions.

### **3.2.4 Trees Left for Wildlife and Other Values**

1. There is to be no cutting of white pine.
2. Hardwood species, such as birch, are to be left when encountered in a stand scheduled for thinning where these do not compete with the conifer crop trees. Portions of thinning areas which are pure hardwood may be left unthinned when encountered. In mixed regeneration, various hardwood or softwood species may be favoured in future stand development in accordance with management objectives stated in the approved operating plan for the area.

### **3.2.5 Timing of Silviculture**

Where possible, silviculture operations are to be reduced/avoided in areas identified by Wildlife Division during the periods of birth and/or hatching.

### **3.2.6 Archaeological Find**

When an archaeological site or artifact is found, the condition in Guideline 1.2.3 will apply.

### **3.2.7 Fuels and Petroleum Products**

1. In the event of a spill and/or leak of petroleum products, see Guideline 1.2.5.1 for further details.
2. Guidelines 1.2.5.2 to 1.2.5.5 relating to petroleum products also apply in silviculture operations.

### **3.2.8 Scarification Method**

Where mechanical site preparation is required, methods selected shall be best suited for preparing the area for planting and for minimizing ground disturbance.

### **3.2.9 Choice of Species to Plant**

In most planting situations, use of native species is preferred; however, judicious planting of non-invasive exotic tree species (such as those species which have been established in the province for decades, or other species which may come under review) may be planted in certain situations.

## **4.0 FOREST PROTECTION GUIDELINES**

### **4.1 Planning for the Application of Pesticides (Insecticides and Herbicides)**

#### **4.1.1 Regulation of Pesticides**

The use of pesticides is regulated by Health Canada and provincially by the DEC. The federal *Pest Control Products Act* states which products are registered for use in Canada. Hence, any products used must be contained in this list; and the provincial *Environmental Protection Act*, *Pesticide Control Regulations* state that you must obtain a license to purchase, sell or handle Commercial or Restricted class pesticides in NL.

#### **4.1.2 Licenses Required**

1. To apply pesticides (e.g., insecticides) in the province, two licenses are required from Pollution Control Division, DEC. The first is a Pesticides Operators License which is issued for a specific program and valid for five years. To obtain this the applicant must submit project details including a map of the area to be treated, product to be used, and time of the year to be used. Following the completion of the project, a report must be submitted to DEC. The second license required is a Pesticide Applicators License. To obtain this license, the applicator must complete an exam. Only people in possession of this license may use the pesticide. It is valid for a period of five years.
2. To apply herbicides, the same conditions apply as above. An Operators License must be obtained for the project and is valid for five years. In addition, each member of the crew involved with application of the herbicide must complete an exam and obtain a Pesticide Applicators License.
3. A third program which requires an Operators License and a Pesticide Applicators License is the tree nursery program which may uses pesticides to grow seedlings. Again the same conditions apply.

## 4.2 Conduct of Operations

### 4.2.1 Pesticides Use

Only bio-degradable pesticides will only be used and then only as part of an integrated pest management strategy.

## 5.0 GUIDELINES FOR FORESTRY OPERATIONS WITHIN PROTECTED PUBLIC WATER SUPPLY AREAS

The primary function of a Protected Public Water Supply Area is to provide the public with an adequate quantity of safe and good quality water on a permanent basis, to meet its present and future demands. By definition, a Protected Public Water Supply Area means the area of land and water designated as a Protected Public Water Supply Area, for a municipal authority operating a waterworks or using or intending to use a water sources, under Section 39 of the *Water Resources Act*. Any other activity within a Protected Public Water Supply Area is considered secondary and, if permitted, must be strictly regulated and monitored to ensure that the water supply integrity is not threatened and the quality of the water is not impaired.

In Newfoundland and Labrador, forestry operations are permitted in most Protected Public Water Supply Area on a limited and controlled basis provided the proposed operations have no, or minimal, water quality impairment potential. More specifically, commercial forest harvesting of any more than 10% of the total land area of the Protected Public Water Supply Area, or 10% of the total merchantable timber, whichever is less, in any 12 month permit will not be permitted.

The following permits and approvals are required prior to the beginning of any forestry operations (whether commercial or domestic operations and including road construction, silviculture activities, and harvesting) within a Protected Public Water Supply Area:

- (i) Approval of the Five-year operating plan by the Environmental Assessment Division of DEC,
- (ii) Issuance of a permit under section 39(6) of the *Water Resources Act* which will include consultation with the community involved. Applications for development inside Protected Public Water Supply Area can be obtained from the Water Resources Management Division website (see Appendix I for link).

## 5.1 Conduct of Operations

The permits issued to contract harvesters should include the conditions indicated on the section 39 permit. In addition to environmental guidelines specified in sections above, the following will apply in Protected Public Water Supply Areas;

### 5.1.1 Map of the Operating Area

The Forest Service or appropriate Company official will provide the operator with a map indicating the harvesting area and the location of no-cut treed buffer zones, and will ensure that the operator is familiar with the boundaries and conditions of the approved detailed plan of operations.

### 5.1.2 Prevention of Erosion

In areas sensitive to erosion, depending on the nature and location of the proposed forestry operation, the Water Resources Management Division may not permit the activity to take place. However, where permitted the following mitigating measures should be put in place:

1. Sensitive areas prone to erosion and areas which have high potential for erosion can be harvested if proper harvesting and site restoration techniques are a part of a detailed plan.
2. Wherever possible, extraction trails should run along contours and avoid wetlands.
3. Use of landings will be minimized. Any approved landing area shall be less than 0.25 ha and located at least 150 metres from PPWSA intake ponds.

### 5.1.3 Buffer Zones

No ground disturbance riparian buffer zone requirements in Protected Public Water Supply Areas are as follows:

| Water Body  | Width of Buffer Zone |
|---|----------------------|
| Intake Pond or Lake or Reservoir                                    | A minimum 150m       |
| River intake (for a distance of 1000m upstream and 100m downstream) | A minimum 150m       |
| Main river channel  | A minimum of 75m     |
| Major tributaries, lakes or ponds                                   | A minimum of 50m     |
| Other water bodies  | A minimum of 30m     |

Any deviations will require approval from Water Resources Management Division.

### 5.1.4 Petroleum Products

Fuel storage and the operation of fuel storage equipment are regulated by the *Storage and Handling of Gasoline and Associated Products Regulations*, 2003 as amended and the *Heating Oil Storage Tank System Regulations*, 2003 as amended.

In addition to the above regulatory requirements and Sections 1.2.5.1 to 1.2.5.5 the following are to be adhered to;

- (i) If fuel must be stored in the PPWSA, it must be in the least sensitive area and be approved by Water Resources Management Division.
- (ii) Refueling must not take place within 150 metres of an intake pond.
- (iii) All tanks must be located at a minimum distance of 500 metres from any major waterbody.
- (iv) A fuel or oil spill clean-up kit must be kept on site to facilitate any clean-up in the event of a spill. This kit must include absorbent pads, loose absorbent materials such as dried peat, speedy-dry or sawdust, a container such as an empty drum for recovering the fuel or oil, and a containment boom.

### **5.1.5 Structures Prohibited in Water Supply Areas**

1. Dormitory camps, garages or any other structures are prohibited within a Protected Public Water Supply Area.
2. The establishment of new sawmills is not permitted in Protected Public Water Supply Areas.

### **5.1.6 Reporting Water Quality Problems**

Any water quality impairment problem should be reported immediately to the Water Resources Management Division.

## **APPENDIX I: RELEVANT LINKS**

### **Applications:**

Development Applications in Protected Public Water Supply Areas

<http://www.env.gov.nl.ca/env/waterres/regulations/appforms/index.html>

### **Impacted Sites:**

[http://www.env.gov.nl.ca/env/env\\_protection/ics/Guidance Document For the Management of Impacted Sites V2.0 Feb 6 2014.pdf](http://www.env.gov.nl.ca/env/env_protection/ics/Guidance_Document_For_the_Management_of_Impacted_Sites_V2.0_Feb_6_2014.pdf)

### **Federal Legislation Links:**

Canada Fisheries Act

<http://laws-lois.justice.gc.ca/eng/acts/F-14/index.html>

<http://www.dfo-mpo.gc.ca/Library/240270.pdf>

Canada Navigable Waters Protection Act

<http://laws.justice.gc.ca/eng/acts/N-22/>

Canada Species at Risk Act

[http://www.sararegistry.gc.ca/approach/act/default\\_e.cfm#1](http://www.sararegistry.gc.ca/approach/act/default_e.cfm#1)

### **Provincial Legislation Links:**

Newfoundland and Labrador Endangered Species Act

<http://www.assembly.nl.ca/Legislation/sr/statutes/e10-1.htm>

Newfoundland and Labrador Environmental Protection Act

<http://www.assembly.nl.ca/legislation/sr/statutes/e14-2.htm>

Newfoundland and Labrador Forestry Act

<http://www.assembly.nl.ca/legislation/sr/statutes/f23.htm>

Newfoundland and Labrador Historical Resources Act

[http://www.assembly.nl.ca/legislation/sr/tableregulations/tableofregulations\\_h04.htm](http://www.assembly.nl.ca/legislation/sr/tableregulations/tableofregulations_h04.htm)

Newfoundland and Labrador Quarry Material Act

<http://www.assembly.nl.ca/legislation/sr/statutes/q01-1.htm>

Newfoundland and Labrador Urban and Rural Planning Act

<http://assembly.nl.ca/Legislation/sr/statutes/u08.htm>

Newfoundland and Labrador Wildlife Act

<http://www.assembly.nl.ca/Legislation/sr/statutes/w08.htm>

## ***Appendix 2 5 Year Plan Operating Area Maps***

**Corner Brook Pulp and Paper Ltd.  
Forest Management District 14  
Five Year Plan (2019-2023)**

**Legend**

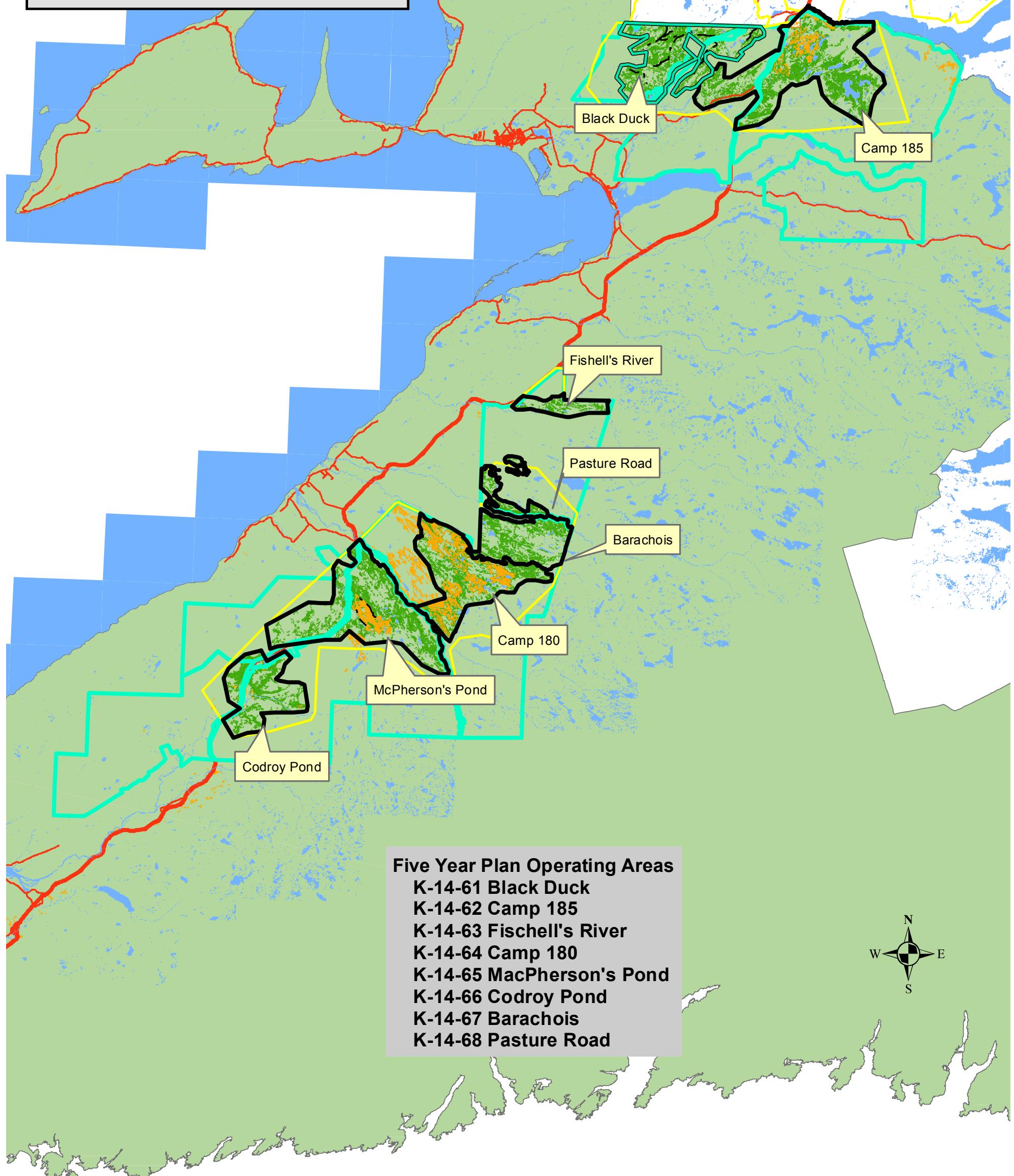
- Five Year Plan Outlines
- Five Year Plan Silviculture Outlines
- Crown Domestic on CBPPL
- Potential Harvestables
- Proposed Primary Road
- Brooks
- Pond
- Recent Cuts



CBPPL  
Geographic Information System  
ESRI 10.5.1  
CSA 2379



1:400,000





**CORNER BROOK PULP & PAPER LIMITED  
FIVE YEAR OPERATING PLAN**



|                        |            |                         |                           |
|------------------------|------------|-------------------------|---------------------------|
| <b>FMD:</b>            | 14         | <b>Plan Period:</b>     | Jan 1,2019 - Dec 31, 2023 |
| <b>Operating Area:</b> | Black Duck | <b>Inventory Map #:</b> | 082                       |
| <b>Harvest Area #:</b> | K-14-61    | <b>NTS Map #:</b>       | 12B09                     |

**Forest Inventory**

**Gross**

Volume: 256,089 m<sup>3</sup>  
Area: 2,513 ha

**Net**

Volume: 209,993 m<sup>3</sup>  
Area: 2,061 ha

**Working Group**

bF: 89 %  
bS: 11 %

**Operational Considerations:**

Harvest System: Mechanical, Conventional

Terrain Conditions: Hilly terrain with steep slopes, shallow to deep topsoil over mineral soil. The merchantable forest is broken up by bog, scrub and areas of Hardwood.

**Other Considerations and Mitigations:**

Consultation was held with all Outfitters in Fmd 14. Harvest and road plans were presented to each Outfitter for review. Responses from individual Outfitter's were dealt with and alterations (if required) were made to the Plan.

CBPP will adhere to Wildlife Division's reccomendations with regard to forest management activities in areas designated as Pine marten habitat.

Consultation with the Wildlife Division regarding Caribou populations and habitat, has resulted in mitigative measures being adopted in this Five Year Plan. These measures ensure adequate habitat is maintained for Caribou.

Corner Brook Pulp and Paper Woodlands is currently certified to an Environmental Management System standard and two Forest Management standards.

For further information on the SFM plan visit our website @  
<http://www.cbppl.com/>.



TM  
Certified System  
ISO 14001  
CSA Z699

## Forest Management District 14 Five Year Plan ( 2019- 2023 )

### Black Duck ( K-14-61 )

Scale:1:50,000

Forest Inv Map 082

NTS Map 12H11, 12B09

#### LEGEND

##### Five Year Plan Features

- Five Year Plan Boundary
- Proposed Silviculture Area
- Crown Domestic Area
- Proposed Primary Road
- Potential Harvest
- Permanent Sample Plots

##### Road Features

- TCH
- Paved Roads
- Resource Roads
- Winter Roads
- TRailway Provincial Park
- Trails

##### Linear Features

- UTM Grid
- Contours
- Transmission Lines
- Protected Public Water Supply Area
- Wildlife Corridor

##### Administration Boundaries

- Management Boundary
- Ownership Boundary

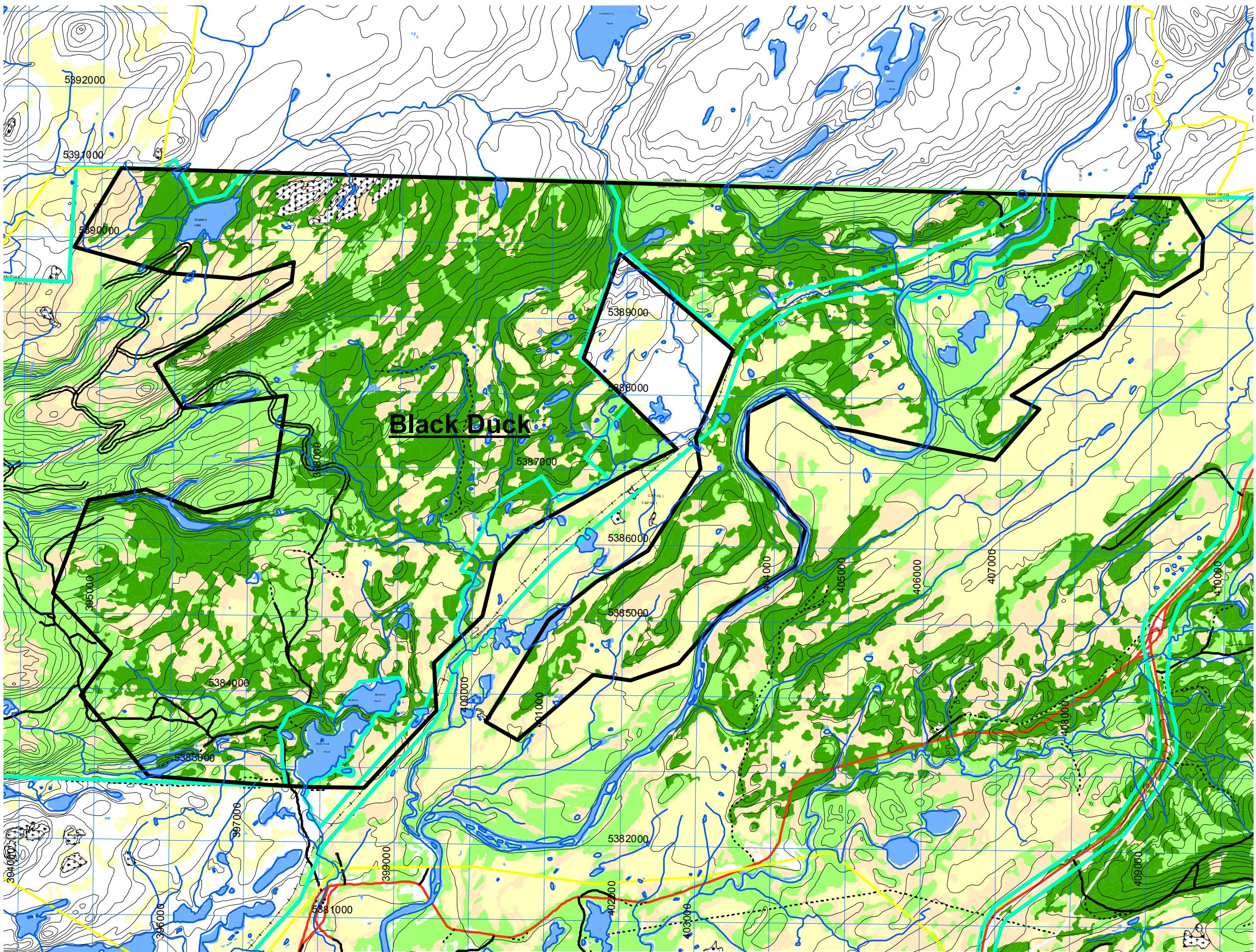
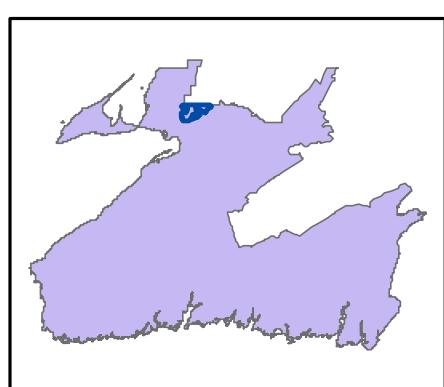
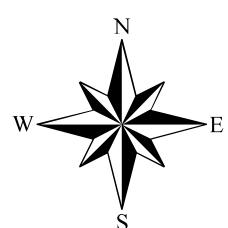
##### Land Features

- Forested Land
- Cutover
- Other disturbance
- Scrub

##### Water Features

- Waterbodies
- Brooks

Insert Map Showing  
Five Year Plan Within District 14





**CORNER BROOK PULP & PAPER LIMITED  
FIVE YEAR OPERATING PLAN**



|                        |                 |                         |                                  |
|------------------------|-----------------|-------------------------|----------------------------------|
| <b>FMD:</b>            | <u>14</u>       | <b>Plan Period:</b>     | <u>Jan 1,2019 - Dec 31, 2023</u> |
| <b>Operating Area:</b> | <u>Camp 185</u> | <b>Inventory Map #:</b> | <u>082</u>                       |
| <b>Harvest Area #:</b> | <u>K-14-62</u>  | <b>NTS Map #:</b>       | <u>12B09</u>                     |

**Forest Inventory**

**Gross**

Volume: 211,646 m<sup>3</sup>  
Area: 2,912 ha

**Net**

Volume: 173,550 m<sup>3</sup>  
Area: 2,388 ha

**Working Group**

bF: 87 %  
bS: 13 %

**Operational Considerations:**

Harvest System: Mechanical, Conventional

Terrain Conditions: Hilly terrain with steep slopes, shallow to deep topsoil over mineral soil. The merchantable forest is broken up by bog, scrub and areas of Hardwood.

**Other Considerations and Mitigations:**

Consultation was held with all Outfitters in Fmd 14. Harvest and road plans were presented to each Outfitter for review. Responses from individual Outfitter's were dealt with and alterations (if required) were made to the Plan.

CBPP will adhere to Wildlife Division's reccomendations with regard to forest management activities in areas designated as Pine marten habitat.

Consultation with the Wildlife Division regarding Caribou populations and habitat, has resulted in mitigative measures being adopted in this Five Year Plan. These measures ensure adequate habitat is maintained for Caribou.

Corner Brook Pulp and Paper Woodlands is currently certified to an Environmental Management System standard and two Forest Management standards. For further information on the SFM plan visit our website @ <http://www.cbppl.com/>.



## Forest Management District 14 Five Year Plan ( 2019- 2023 )

### Camp 185 ( K-14-62 )

Scale: 1:63,000

Forest Inv Map 082

NTS Map 12H11, 12B09

#### LEGEND

##### Five Year Plan Features

- Five Year Plan Boundary
- Proposed Silviculture Area
- Crown Domestic Area
- Proposed Primary Road
- Potential Harvest
- Permanent Sample Plots

##### Road Features

- TCH
- Paved Roads
- Resource Roads
- Winter Roads
- TRailway Provincial Park
- Trails

##### Linear Features

- UTM Grid
- Contours
- Transmission Lines
- Protected Public Water Supply Area
- Wildlife Corridor

##### Administration Boundaries

- Management Boundary

- Ownership Boundary

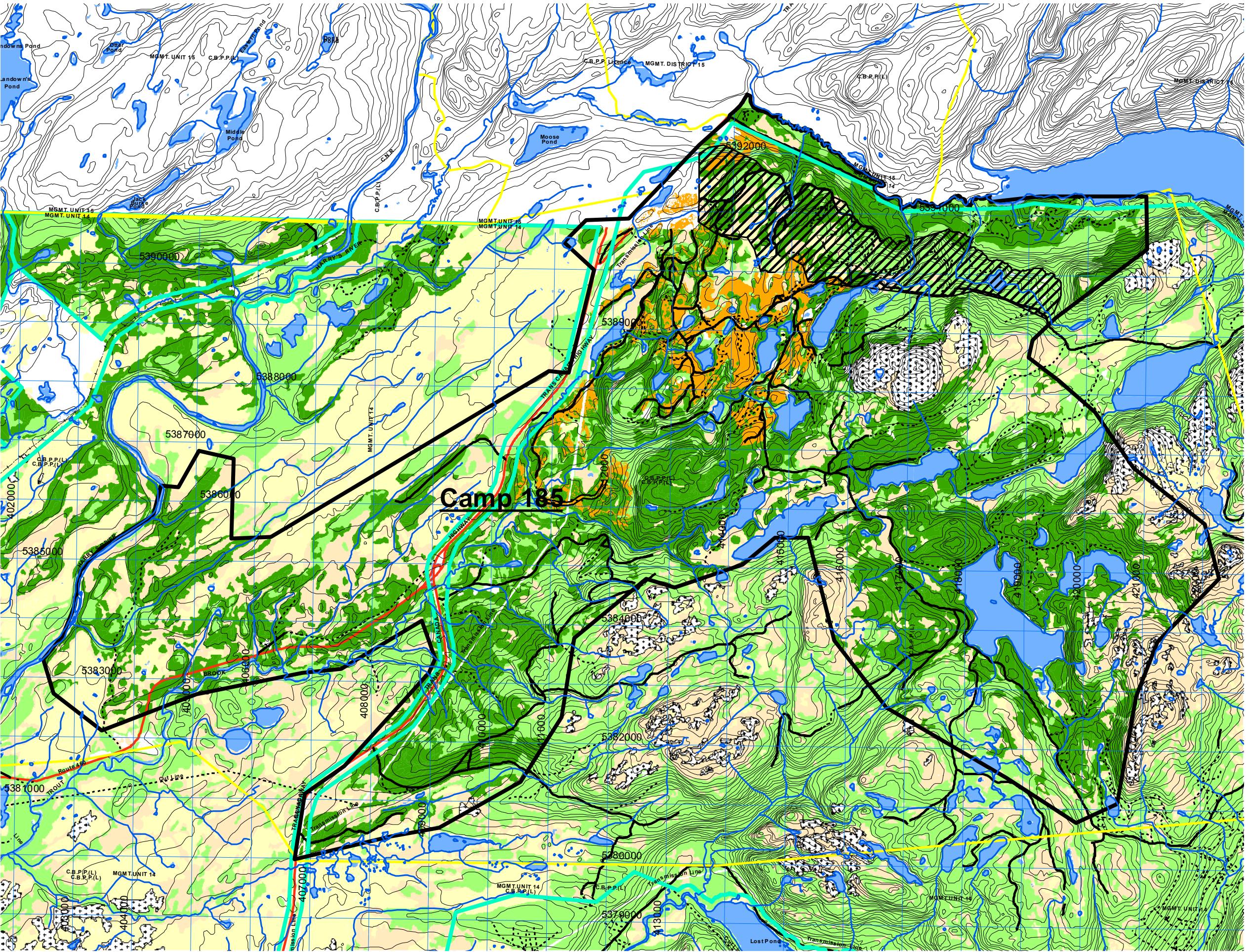
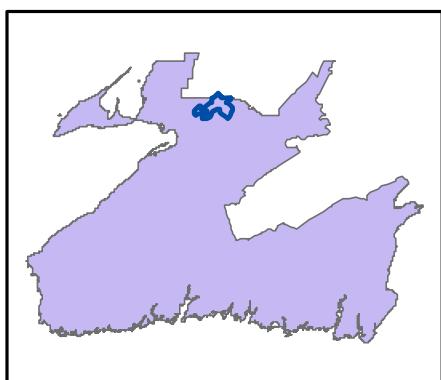
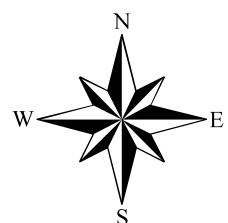
##### Land Features

- Forested Land
- Cutover
- Other disturbance
- Scrub

##### Water Features

- Waterbodies
- Brooks

Insert Map Showing  
Five Year Plan Within District 14





## CORNER BROOK PULP & PAPER LIMITED FIVE YEAR OPERATING PLAN



**FMD:** 14 **Plan Period:** Jan 1,2019 - Dec 31, 2023  
**Operating Area:** Fischell's River **Inventory Map #:** 094-095  
**Harvest Area #:** K-14-63 **NTS Map #:** 12B07, 12B08

### Forest Inventory

#### Gross

Volume: 29,873 m<sup>3</sup>  
Area: 398 ha

#### Net

Volume: 24,496 m<sup>3</sup>  
Area: 326 ha

#### Working Group

bF: 73 %  
bS: 27 %

### Operational Considerations:

Harvest System: Mechanical, Conventional

Terrain Conditions: Rolling terrain with moderate slopes, shallow to deep topsoil over mineral soil. The merchantable forest is broken up by bog, scrub and areas of Hardwood.

### Other Considerations and Mitigations:

Consultation was held with all Outfitters in Fmd 14. Harvest and road plans were presented to each Outfitter for review. Responses from individual Outfitter's were dealt with and alterations (if required) were made to the Plan.

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## Forest Management District 14 Five Year Plan ( 2019- 2023 )

### Fishells River ( K-14-63 )

Scale: 1:33,000

Forest Inv Map 094, 095  
NTS Map 12B07, 12B08

#### LEGEND

##### Five Year Plan Features

- Five Year Plan Boundary
- Proposed Silviculture Area
- Crown Domestic Area
- Proposed Primary Road
- Potential Harvest
- Permanent Sample Plots

##### Road Features

- TCH
- Paved Roads
- Resource Roads
- Winter Roads
- TRailway Provincial Park
- Trails

##### Linear Features

- UTM Grid
- Contours
- Transmission Lines
- Protected Public Water Supply Area
- Wildlife Corridor

##### Administration Boundaries

- Management Boundary
- Ownership Boundary

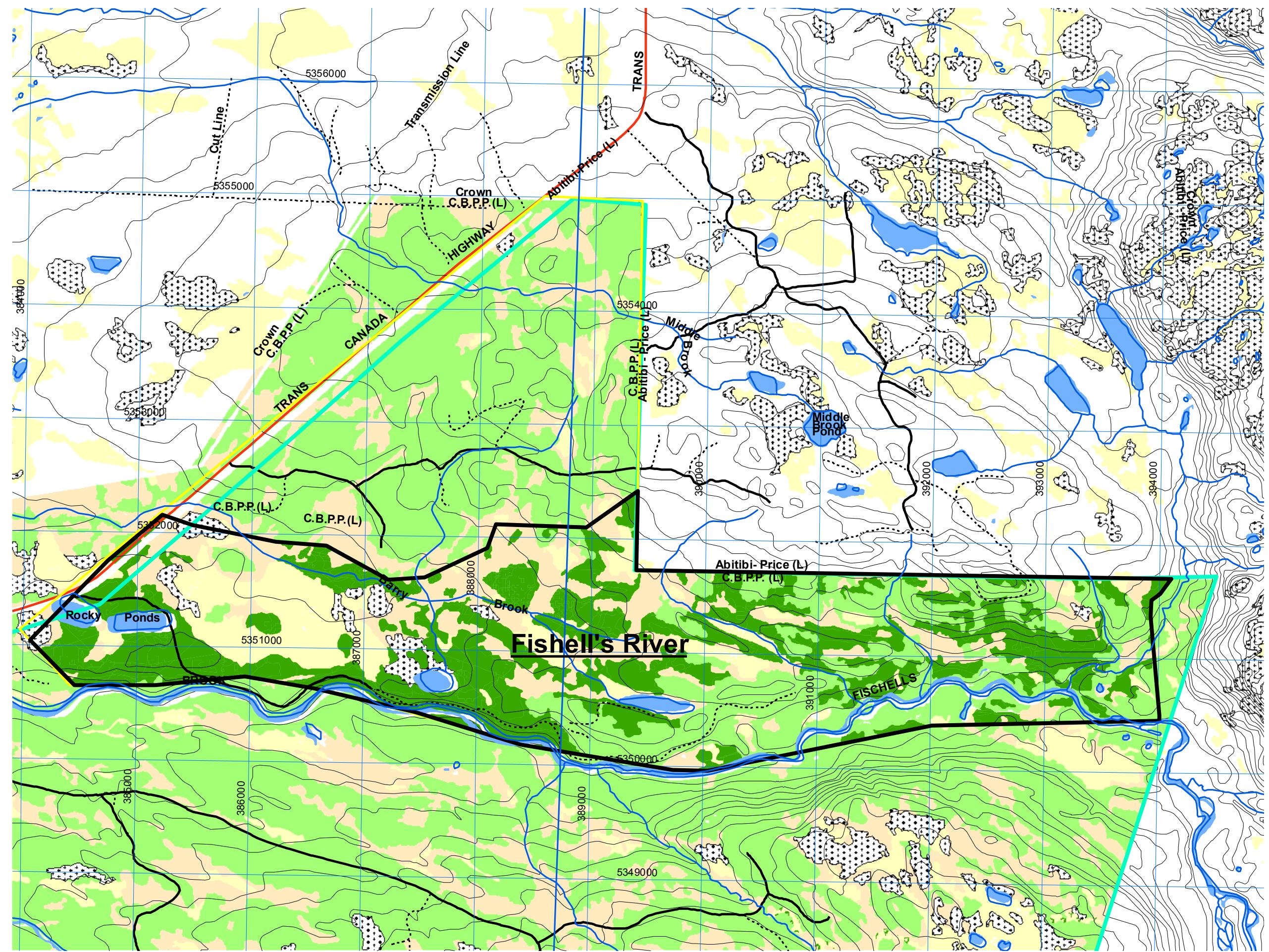
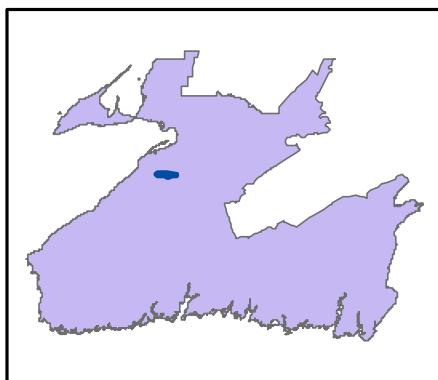
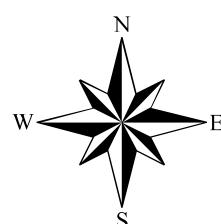
##### Land Features

- Forested Land
- Cutover
- Other disturbance
- Scrub

##### Water Features

- Waterbodies
- Brooks

Insert Map Showing  
Five Year Plan Within District 14





**CORNER BROOK PULP & PAPER LIMITED  
FIVE YEAR OPERATING PLAN**



|                        |                 |                         |                                  |
|------------------------|-----------------|-------------------------|----------------------------------|
| <b>FMD:</b>            | <u>14</u>       | <b>Plan Period:</b>     | <u>Jan 1,2019 - Dec 31, 2023</u> |
| <b>Operating Area:</b> | <u>Camp 180</u> | <b>Inventory Map #:</b> | <u>107</u>                       |
| <b>Harvest Area #:</b> | <u>K-14-64</u>  | <b>NTS Map #:</b>       | <u>12B07, 12B02</u>              |

**Forest Inventory**

**Gross**

Volume: 149,087 m<sup>3</sup>  
Area: 2,213 ha

**Net**

Volume: 122,251 m<sup>3</sup>  
Area: 1,815 ha

**Working Group**

bF: 82 %  
bS: 18 %

**Operational Considerations:**

Harvest System: Mechanical, Conventional

Terrain Conditions: Rolling terrain with moderate slopes, shallow to deep topsoil over mineral soil. The merchantable forest is broken up by bog, scrub and areas of Hardwood.

**Other Considerations and Mitigations:**

Consultation was held with all Outfitters in Fmd 14. Harvest and road plans were presented to each Outfitter for review. Responses from individual Outfitter's were dealt with and alterations (if required) were made to the Plan.

CBPP will adhere to Wildlife Division's reccomendations with regard to forest management activities in areas designated as Pine marten habitat.

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## **Forest Management District 14 Five Year Plan ( 2019- 2023 )**

## Camp 180 ( K-14-64 )

Scale:1:64,000

## Forest Inv Map 107

NTS Map 12B07, 12B02

## LEGEND

## Five Year Plan Features

- Five Year Plan Boundary
- Proposed Silviculture Area
- Crown Domestic Area
- Proposed Primary Road
- Potential Harvest
- Permanent Sample Plots

## Road Features

- TCH
- Paved Roads
- Resource Roads
- Winter Roads
- T'Railway Provincial Park
- Trails

## Linear Features

- Linear Features
  - UTM Grid
  - Contours
  - Transmission Lines
- Protected Public Water Supply Area
- Wildlife Corridors

## Administration Boundaries

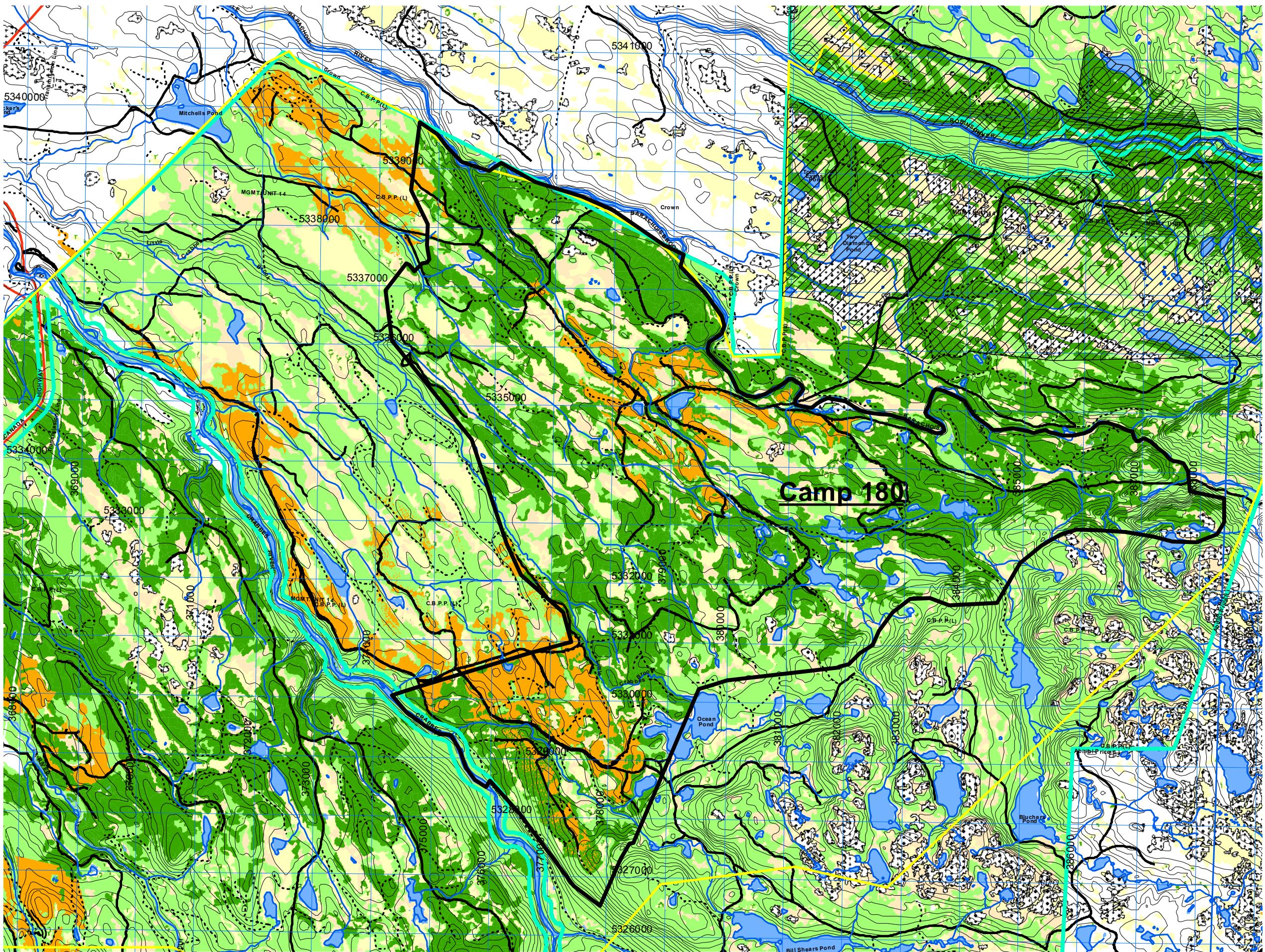
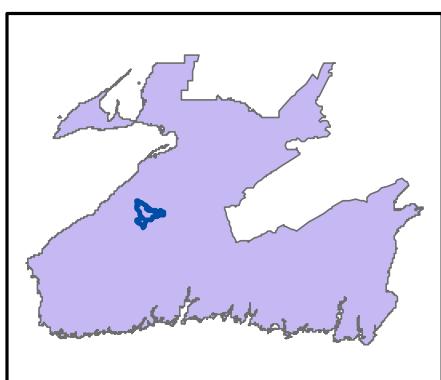
## Administration Boundaries

## Land Features

## Scrub

## Water Feature

## Insert Map Showing Five Year Plan Within District 14





## CORNER BROOK PULP & PAPER LIMITED FIVE YEAR OPERATING PLAN



**FMD:** 14      **Plan Period:** Jan 1,2019 - Dec 31, 2023  
**Operating Area:** McPherson's Pond      **Inventory Map #:** 107  
**Harvest Area #:** K-14-65      **NTS Map #:** 12B02

### Forest Inventory

#### Gross

Volume: 194,810 m<sup>3</sup>  
Area: 2,254 ha

#### Net

Volume: 159,744 m<sup>3</sup>  
Area: 1,848 ha

#### Working Group

bF: 89 %  
bS: 11 %

### Operational Considerations:

Harvest System: Mechanical, Conventional

Terrain Conditions: Hilly terrain with steep slopes, shallow to deep topsoil over mineral soil. The merchantable forest is broken up by bog, scrub and areas of Hardwood.

### Other Considerations and Mitigations:

Consultation was held with all Outfitters in Fmd 14. Harvest and road plans were presented to each Outfitter for review. Responses from individual Outfitter's were dealt with and alterations (if required) were made to the Plan.

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## Forest Management District 14 Five Year Plan ( 2019- 2023 )

McPhersons Pond ( K-14-65 )  
Scale:1:62,000  
Forest Inv Map 107  
NTS Map 12B02

### LEGEND

#### Five Year Plan Features

- Five Year Plan Boundary
- Proposed Silviculture Area
- Crown Domestic Area
- Proposed Primary Road
- Potential Harvest
- Permanent Sample Plots

#### Road Features

- TCH
- Paved Roads
- Resource Roads
- Winter Roads
- TRailway Provincial Park
- Trails

#### Linear Features

- UTM Grid
- Contours
- Transmission Lines
- Protected Public Water Supply Area
- Wildlife Corridor

#### Administration Boundaries

- Management Boundary
- Ownership Boundary

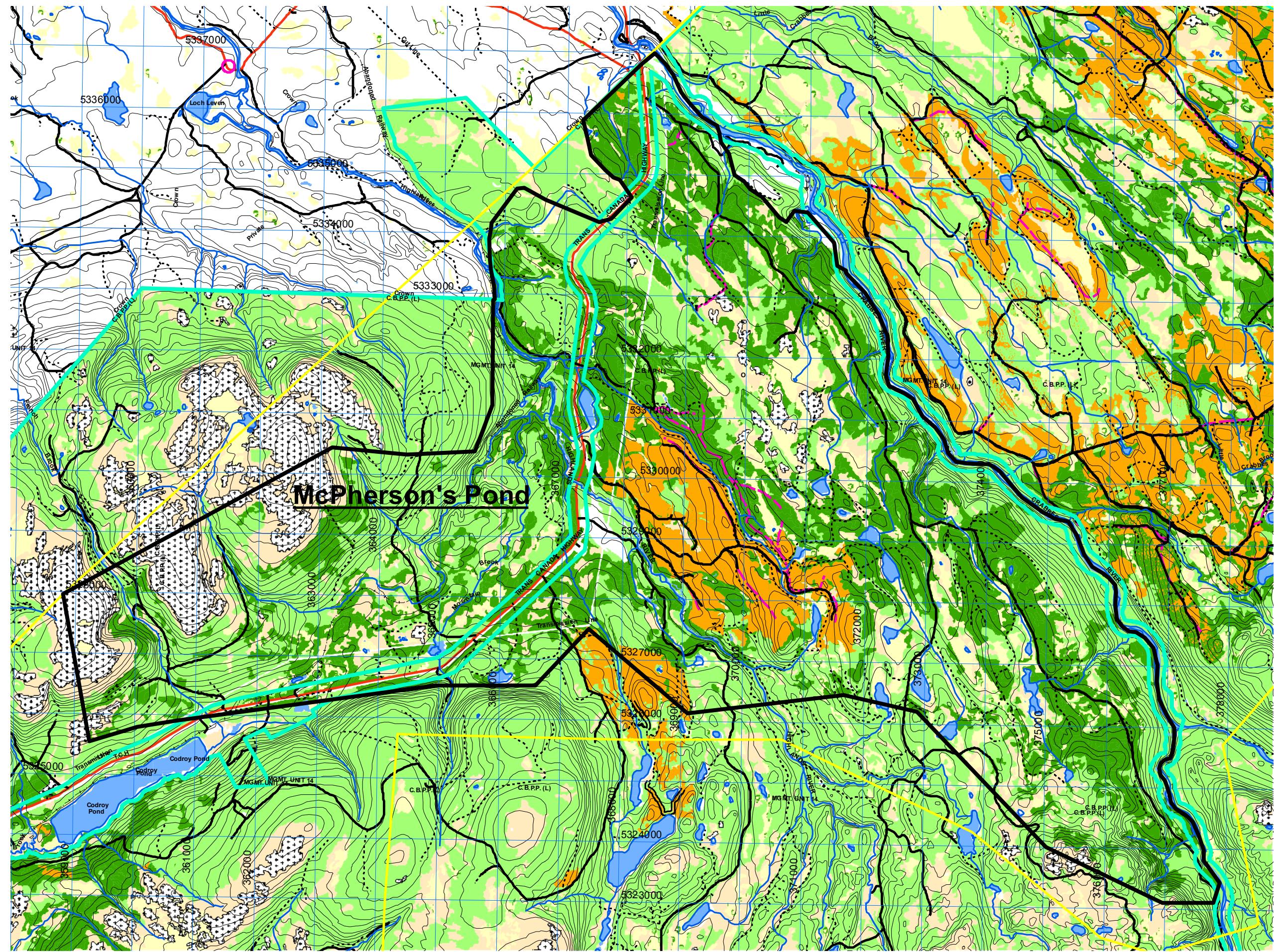
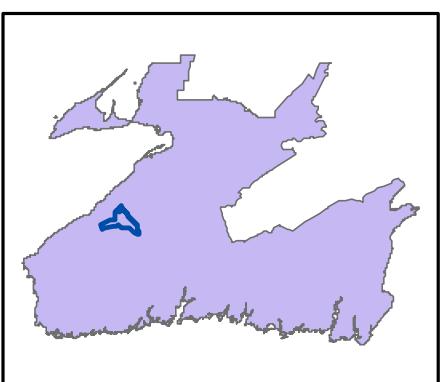
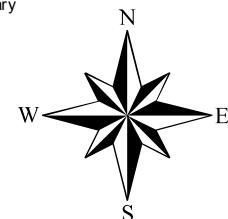
#### Land Features

- Forested Land
- Cutover
- Other disturbance
- Scrub

#### Water Features

- Waterbodies
- Brooks

Insert Map Showing  
Five Year Plan Within District 14





## CORNER BROOK PULP & PAPER LIMITED FIVE YEAR OPERATING PLAN



ISO 14001  
CSA Z809-02

|                        |             |                         |                           |
|------------------------|-------------|-------------------------|---------------------------|
| <b>FMD:</b>            | 14          | <b>Plan Period:</b>     | Jan 1,2019 - Dec 31, 2023 |
| <b>Operating Area:</b> | Codroy Pond | <b>Inventory Map #:</b> | 107, 121                  |
| <b>Harvest Area #:</b> | K-14-66     | <b>NTS Map #:</b>       | 12B02, 11O15              |

### Forest Inventory

#### Gross

Volume: 117,010 m<sup>3</sup>  
Area: 1,180 ha

#### Net

Volume: 95,948 m<sup>3</sup>  
Area: 968 ha

#### Working Group

bF: 90 %  
bS: 10 %

### Operational Considerations:

Harvest System: Mechanical, Conventional

Terrain Conditions: Hilly terrain with steep slopes, shallow to deep topsoil over mineral soil. The merchantable forest is broken up by bog, scrub and areas of Hardwood.

### Other Considerations and Mitigations:

Consultation was held with all Outfitters in Fmd 14. Harvest and road plans were presented to each Outfitter for review. Responses from individual Outfitter's were dealt with and alterations (if required) were made to the Plan.

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## Forest Management District 14 Five Year Plan ( 2019- 2023 )

### Codroy Pond ( K-14-66 )

Scale: 1:40,000

Forest Inv Map 107, 121  
NTS Map 12B02, 11O15

#### LEGEND

##### Five Year Plan Features

- Five Year Plan Boundary
- Proposed Silviculture Area
- Crown Domestic Area
- Proposed Primary Road
- Potential Harvest
- Permanent Sample Plots

##### Road Features

- TCH
- Paved Roads
- Resource Roads
- Winter Roads
- TRailway Provincial Park
- Trails

##### Linear Features

- UTM Grid
- Contours
- Transmission Lines
- Protected Public Water Supply Area
- Wildlife Corridor

##### Administration Boundaries

- Management Boundary
- Ownership Boundary

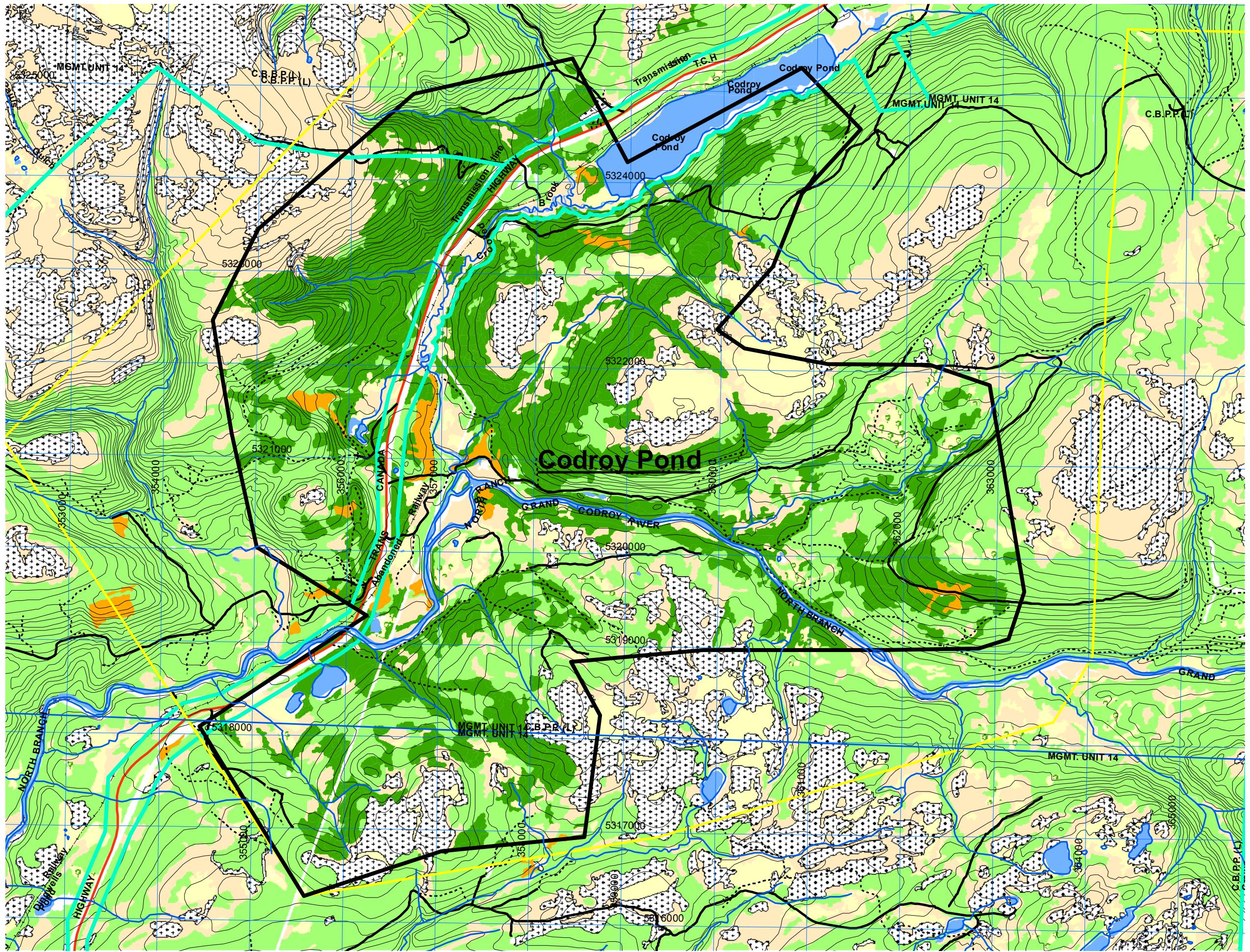
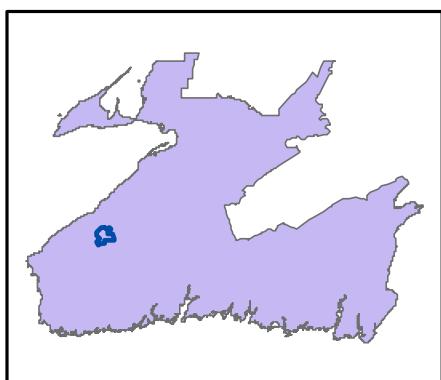
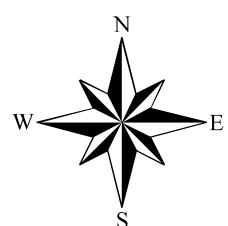
##### Land Features

- Forested Land
- Cutover
- Other disturbance
- Scrub

##### Water Features

- Waterbodies
- Brooks

Insert Map Showing  
Five Year Plan Within District 14





**CORNER BROOK PULP & PAPER LIMITED  
FIVE YEAR OPERATING PLAN**



**FMD:** 14 **Plan Period:** Jan 1,2019 - Dec 31, 2023  
**Operating Area:** Barachois **Inventory Map #:** 107  
**Harvest Area #:** K-14-67 **NTS Map #:** 12B02

**Forest Inventory**

**Gross**

Volume: 94,558 m<sup>3</sup>  
Area: 1,272 ha

**Net**

Volume: 77,538 m<sup>3</sup>  
Area: 1,043 ha

**Working Group**

bF: 81 %  
bS: 19 %

**Operational Considerations:**

Harvest System: Mechanical, Conventional

Terrain Conditions: Rolling terrain with moderate slopes, shallow to deep topsoil over mineral soil. The merchantable forest is broken up by bog, scrub and areas of Hardwood.

**Other Considerations and Mitigations:**

Consultation was held with all Outfitters in Fmd 14. Harvest and road plans were presented to each Outfitter for review. Responses from individual Outfitter's were dealt with and alterations (if required) were made to the Plan.

CBPP will adhere to Wildlife Division's reccomendations with regard to forest management activities in areas designated as Pine marten habitat.

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## Forest Management District 14 Five Year Plan ( 2019- 2023 )

## Barachois ( K-14-67 )

**Scale:1:40,000**

## Forest Inv Map 107

NTS Map 12B2

## LEGEND

## Five Year Plan Features

The legend consists of six entries, each with a colored square and a label: a black square for 'Five Year Plan Boundary', a yellow square for 'Proposed Silviculture Area', a cyan square for 'Crown Domestic Area', a black dashed line for 'Proposed Primary Road', a green square for 'Potential Harvest', and a black circle for 'Permanent Sample Plots'.

## Road Features

- TCH
- Paved Roads
- Resource Roads
- Winter Roads
- T'Railway Provincial Park
- Trails

## Linear Features

- UTM Grid
- Contours
- Transmission Lines
- Protected Public Water Supply Area
-  Wildlife Corridor

## Administration Boundaries

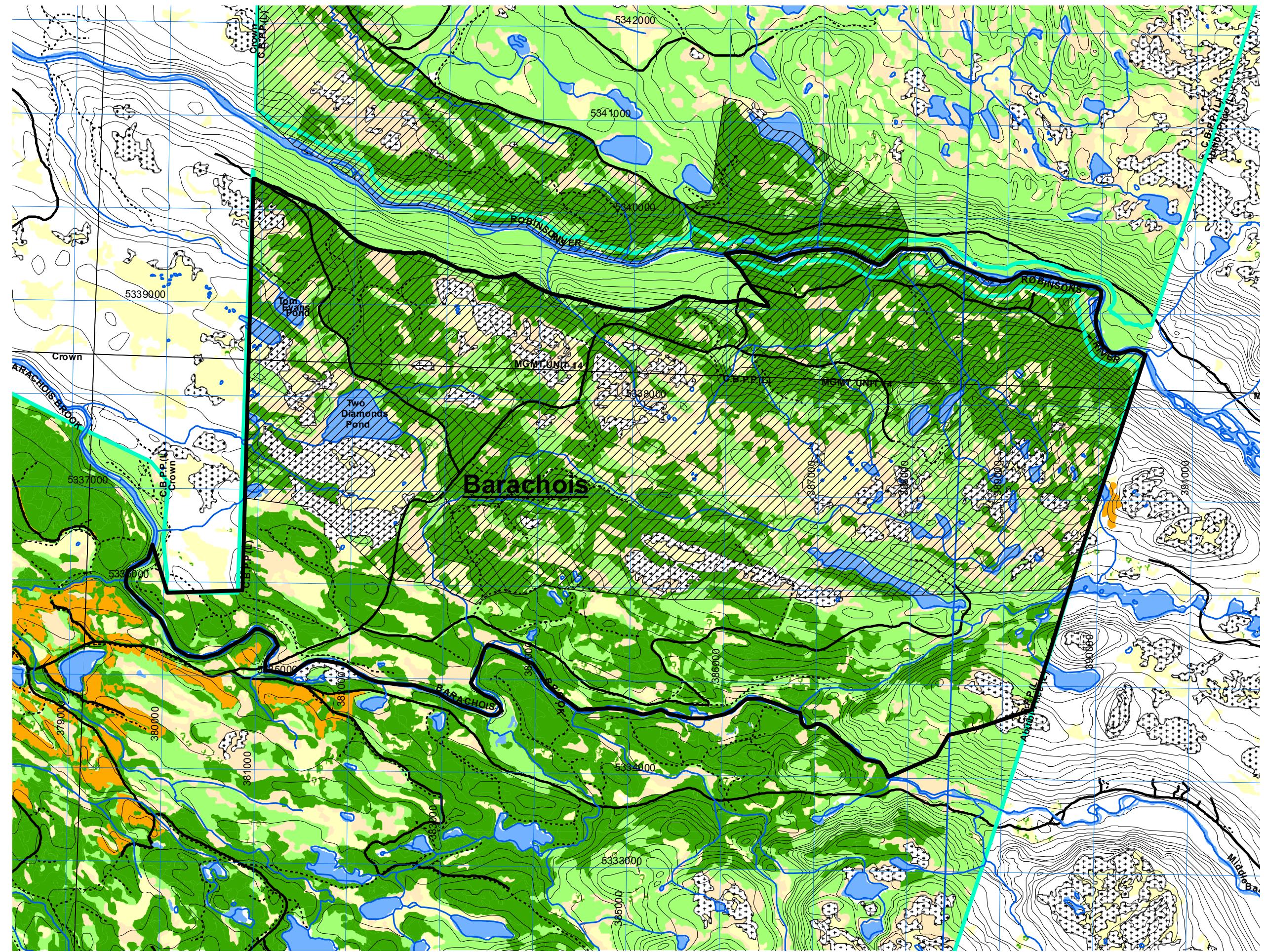
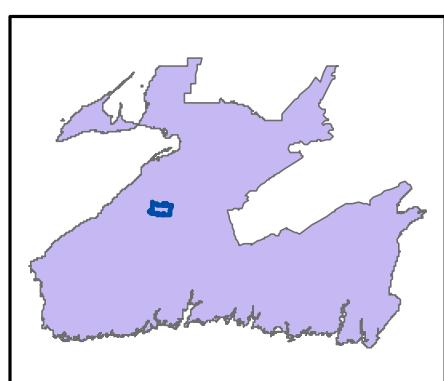
## Administration Boundaries

## Land Features

## Scrub

## Water Features

## Insert Map Showing Five Year Plan Within District 14





**CORNER BROOK PULP & PAPER LIMITED  
FIVE YEAR OPERATING PLAN**



|                        |              |                         |                           |
|------------------------|--------------|-------------------------|---------------------------|
| <b>FMD:</b>            | 14           | <b>Plan Period:</b>     | Jan 1,2019 - Dec 31, 2023 |
| <b>Operating Area:</b> | Pasture Road | <b>Inventory Map #:</b> | 107, 108                  |
| <b>Harvest Area #:</b> | K-14-68      | <b>NTS Map #:</b>       | 12B02, 12B01              |

**Forest Inventory**

**Gross**

Volume: 37,783 m<sup>3</sup>  
Area: 567 ha

**Net**

Volume: 30,982 m<sup>3</sup>  
Area: 465 ha

**Working Group**

bF: 72 %  
bS: 18 %

**Operational Considerations:**

Harvest System: Mechanical, Conventional

Terrain Conditions: Rolling terrain with moderate slopes, shallow to deep topsoil over mineral soil. The merchantable forest is broken up by bog, scrub and areas of Hardwood.

**Other Considerations and Mitigations:**

Consultation was held with all Outfitters in Fmd 14. Harvest and road plans were presented to each Outfitter for review. Responses from individual Outfitter's were dealt with and alterations (if required) were made to the Plan.

CBPP will adhere to Wildlife Division's reccomendations with regard to forest management activities in areas designated as Pine marten habitat.

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## Forest Management District 14 Five Year Plan ( 2019- 2023 )

### Pasture Road ( K-14-68 )

Scale: 1:33,000

Forest Inv Map 107, 108

NTS Map 12B2, 12B1

#### LEGEND

##### Five Year Plan Features

- Five Year Plan Boundary
- Proposed Silviculture Area
- Crown Domestic Area
- Proposed Primary Road
- Potential Harvest
- Permanent Sample Plots

##### Road Features

- TCH
- Paved Roads
- Resource Roads
- Winter Roads
- TRailway Provincial Park
- Trails

##### Linear Features

- UTM Grid
- Contours
- Transmission Lines
- Protected Public Water Supply Area
- Wildlife Corridor

##### Administration Boundaries

- Management Boundary
- Ownership Boundary

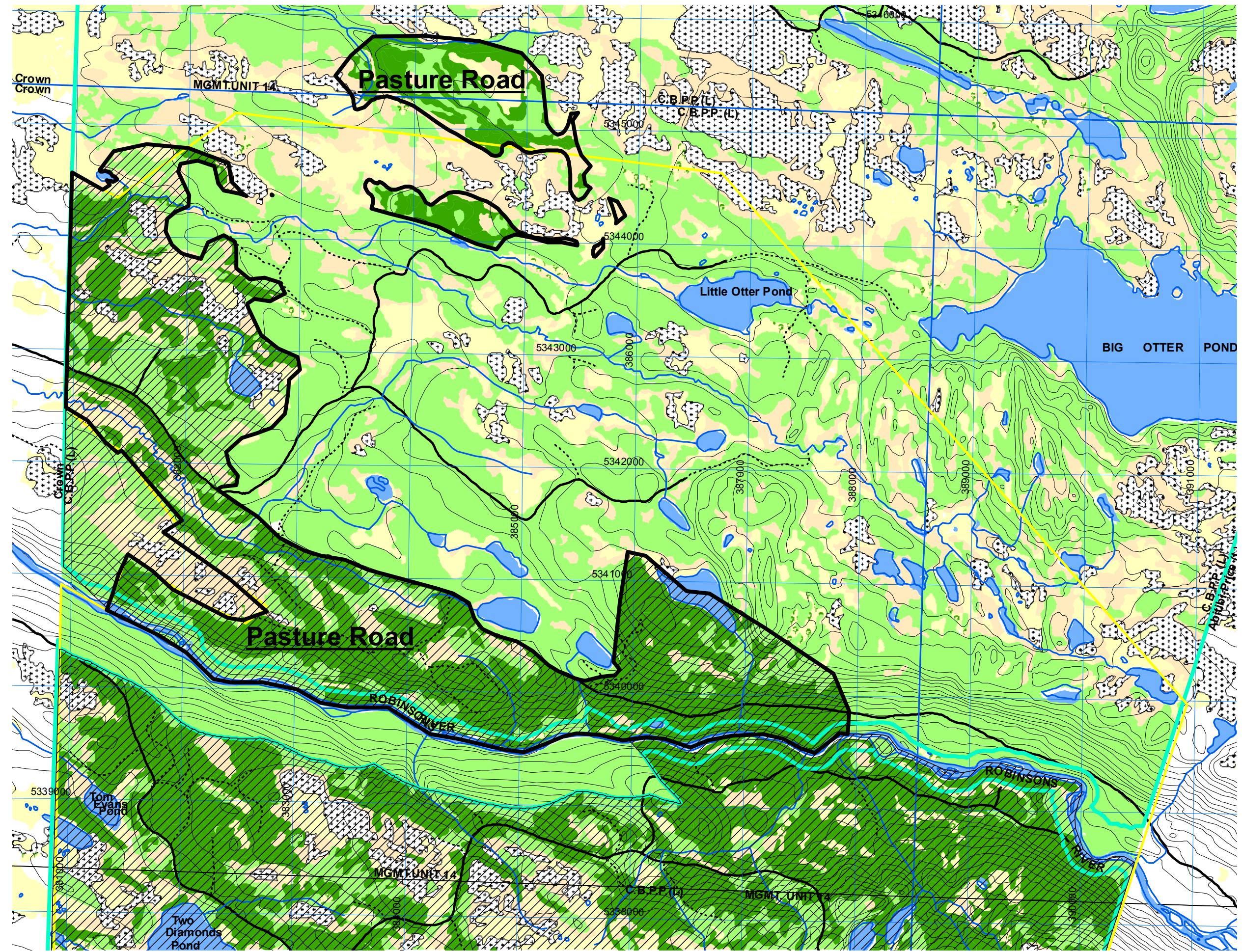
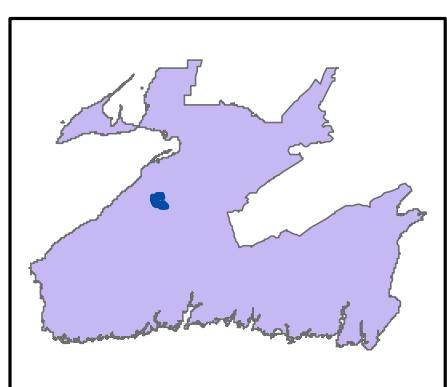
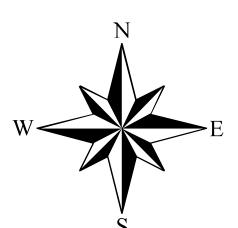
##### Land Features

- Forested Land
- Cutover
- Other disturbance
- Scrub

##### Water Features

- Waterbodies
- Brooks

Insert Map Showing  
Five Year Plan Within District 14



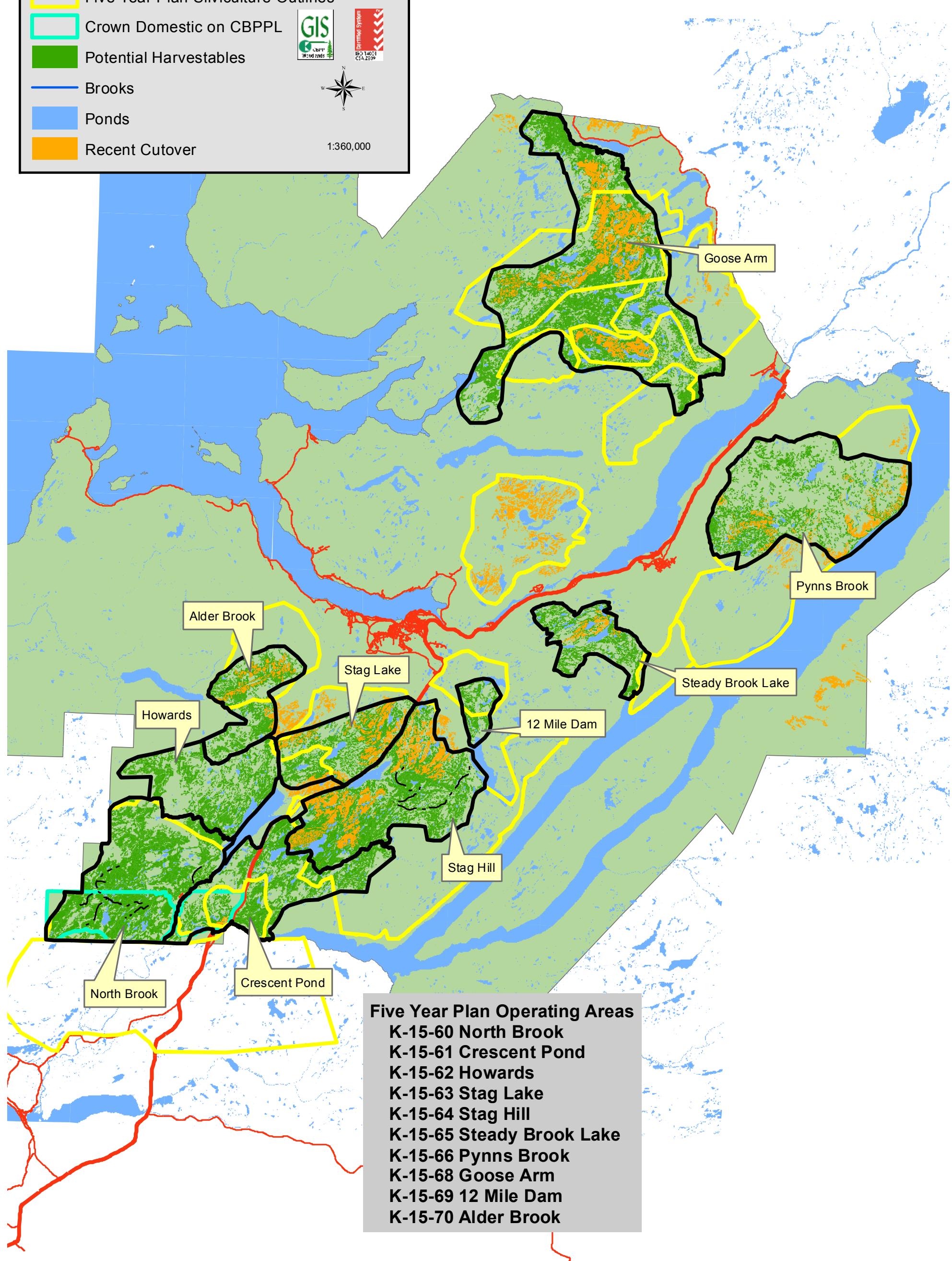
# Corner Brook Pulp and Paper Ltd. Forest Management District 15 Five Year Plan (2019-2023)

## Legend

- Five Year Plan Outlines
- Five Year Plan Silviculture Outlines
- Crown Domestic on CBPPL
- Potential Harvestables
- Brooks
- Ponds
- Recent Cutover



1:360,000





**CORNER BROOK PULP & PAPER LIMITED  
FIVE YEAR OPERATING PLAN**



|                        |                    |                         |                                  |
|------------------------|--------------------|-------------------------|----------------------------------|
| <b>FMD:</b>            | <u>15</u>          | <b>Plan Period:</b>     | <u>Jan 1,2019 - Dec 31, 2023</u> |
| <b>Operating Area:</b> | <u>North Brook</u> | <b>Inventory Map #:</b> | <u>070, 082</u>                  |
| <b>Harvest Area #:</b> | <u>K-15-60</u>     | <b>NTS Map #:</b>       | <u>12B09, 12B16</u>              |

**Forest Inventory**

| <b>Gross</b>                          | <b>Net</b>                            | <b>Working Group</b> |
|---------------------------------------|---------------------------------------|----------------------|
| Volume: <u>898,834</u> m <sup>3</sup> | Volume: <u>737,044</u> m <sup>3</sup> | bF: <u>91</u> %      |
| Area: <u>7,330</u> ha                 | Area: <u>6,011</u> ha                 | bS: <u>9</u> %       |

**Operational Considerations:**

|                     |  |
|---------------------|--|
| Harvest System:     | <u>Mechanical, Conventional</u>  |
| Terrain Conditions: | <u>Hilly terrain with steep slopes, shallow to deep topsoil over mineral soil. The merchantable forest is broken up by bog, scrub and areas of Hardwood.</u> |

**Other Considerations and Mitigations:**

This operating area is partially contained inside the Protected Water Supply for the Town of Gallants. Forestry activities will conform with the Environmental Protection Guidelines related to operations within Protected Water Supply Areas.

Consultation was held with all Outfitters in Fmd 15. Harvest and road plans were presented to each Outfitter for review. Responses from individual Outfitter's were dealt with and alterations (if required) were made to the Plan.

CBPP will adhere to Wildlife Division's reccomendations with regard to forest management activities in areas designated as Pine marten habitat.

Corner Brook Pulp and Paper Woodlands is currently certified to an Environmental Management System standard and two Forest Management standards. For further information on the SFM plan visit our website @ <http://www.cbppl.com/>.



## **Forest Management District 15 Five Year Plan ( 2019- 2023 )**

## North Brook ( K - 15-60 )

**Scale: 1:60,000**

## Forest Inv Map 070, 082

NTS Map 12B16

## LEGEND

## Five Year Plan Features

- Five Year Plan Boundary
- Proposed Silviculture Area
- Crown Domestic Area
- Proposed Primary Road
- Potential Harvest
- Permanent Sample Plots

## Road Features

- TCH
- Paved Roads
- Resource Roads
- Winter Roads
- TRailway Provincial Park
- Trails

## Linear Features

Linear Features

- UTM Grid
- Contours
- Transmission Lines
- Protected Public Water Supply Area
-  Wildlife Corridors

## Administration Boundaries

## Administration Boundaries

## Land Features

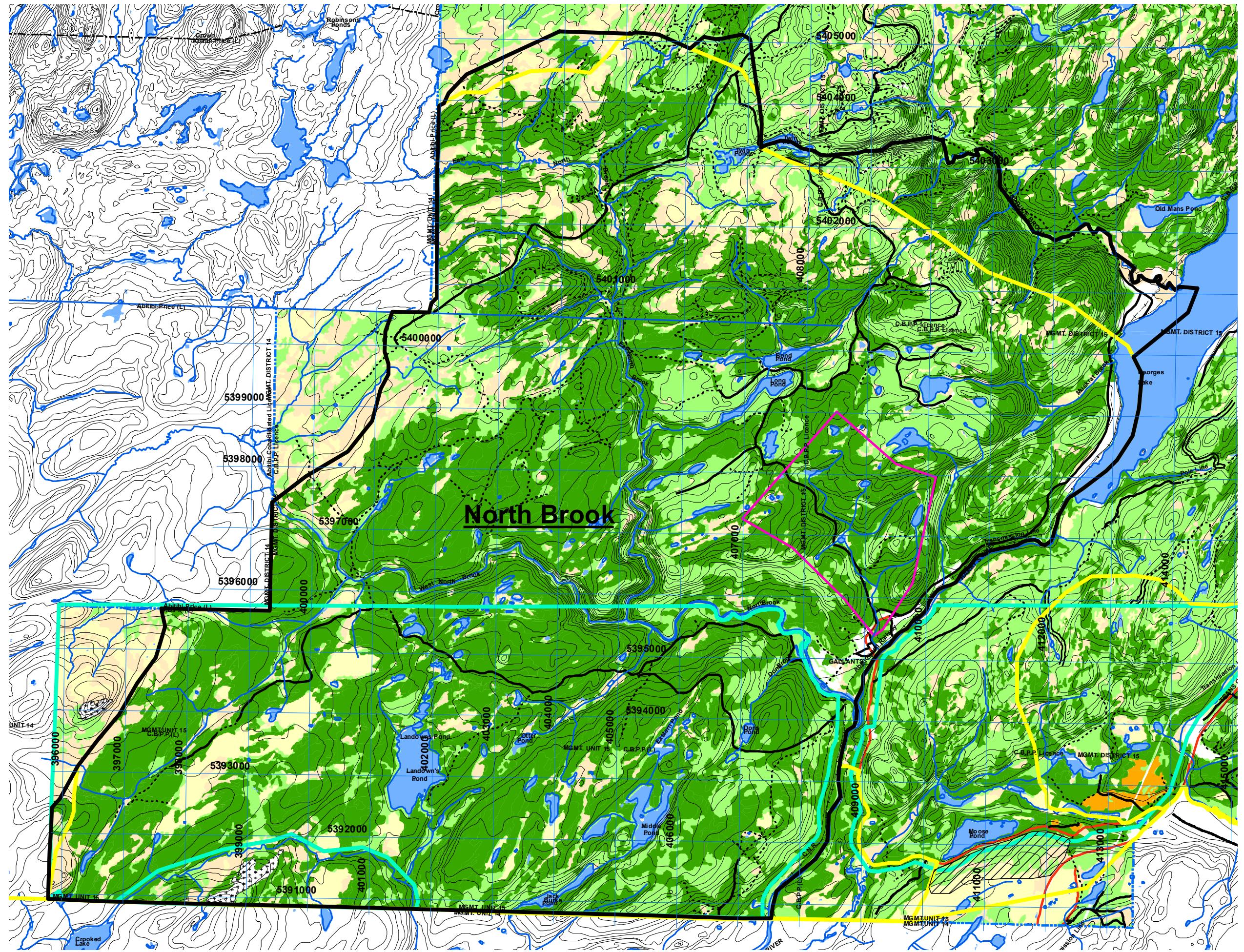
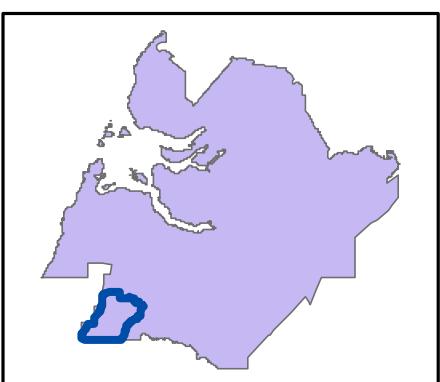
Legend for land features:

- Forested Land (green)
- Cutover (orange)
- Other disturbance (grey)

## Scrub

## Water Features

## Insert Map Showing Five Year Plan Within District 15





**CORNER BROOK PULP & PAPER LIMITED  
FIVE YEAR OPERATING PLAN**



|                        |                      |                         |                                  |
|------------------------|----------------------|-------------------------|----------------------------------|
| <b>FMD:</b>            | <u>15</u>            | <b>Plan Period:</b>     | <u>Jan 1,2019 - Dec 31, 2023</u> |
| <b>Operating Area:</b> | <u>Crescent Pond</u> | <b>Inventory Map #:</b> | <u>082</u>                       |
| <b>Harvest Area #:</b> | <u>K-15-61</u>       | <b>NTS Map #:</b>       | <u>12B09</u>                     |

**Forest Inventory**

| <b>Gross</b>                          | <b>Net</b>                            | <b>Working Group</b> |
|---------------------------------------|---------------------------------------|----------------------|
| Volume: <u>403,039</u> m <sup>3</sup> | Volume: <u>330,492</u> m <sup>3</sup> | bF: <u>89</u> %      |
| Area: <u>4,062</u> ha                 | Area: <u>3,331</u> ha                 | bS: <u>11</u> %      |

**Operational Considerations:**

|                     |  |
|---------------------|--|
| Harvest System:     | <u>Mechanical, Conventional</u>  |
| Terrain Conditions: | <u>Hilly terrain with steep slopes, shallow to deep topsoil over mineral soil. The merchantable forest is broken up by bog, scrub and areas of Hardwood.</u> |

**Other Considerations and Mitigations:**

Consultation was held with all Outfitters in Fmd 15. Harvest and road plans were presented to each Outfitter for review. Responses from individual Outfitter's were dealt with and alterations (if required) were made to the Plan.

CBPP will adhere to Wildlife Division's reccomendations with regard to forest management activities in areas designated as Pine marten habitat.

Consultation with the Wildlife Division regarding Caribou populations and habitat, has resulted in mitigative measures being adopted in this Five Year Plan. These measures ensure adequate habitat is maintained for Caribou.

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## Forest Management District 15 Five Year Plan ( 2019- 2023 )

Crescent Pond ( K - 15-61 )

Scale: 1:75,000

Forest Inv Map 082

NTS Map 12B09

### LEGEND

#### Five Year Plan Features

- Five Year Plan Boundary
- Proposed Silviculture Area
- Crown Domestic Area
- Proposed Primary Road
- Potential Harvest
- Permanent Sample Plots

#### Road Features

- TCH
- Paved Roads
- Resource Roads
- Winter Roads
- TRailway Provincial Park
- Trails

#### Linear Features

- UTM Grid
- Contours
- Transmission Lines
- Protected Public Water Supply Area
- Wildlife Corridor

#### Administration Boundaries

- Management Boundary
- Ownership Boundary

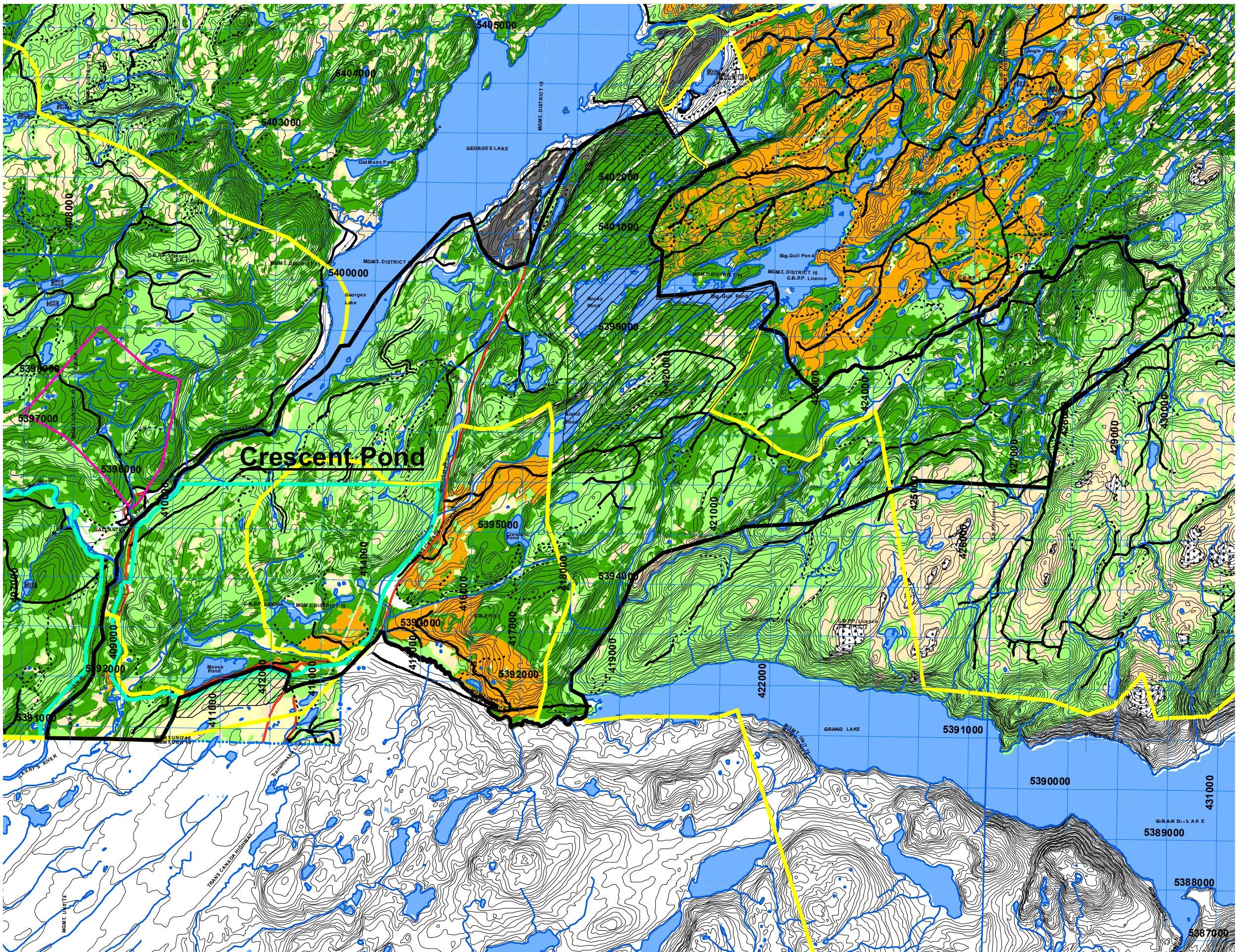
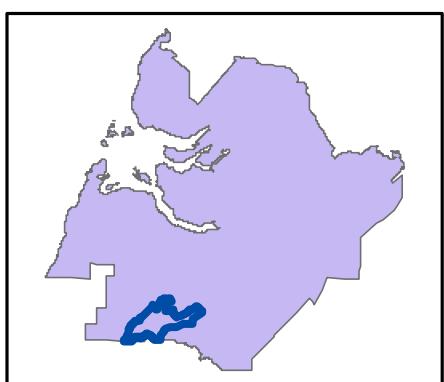
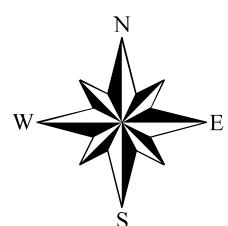
#### Land Features

- Forested Land
- Cutover
- Other disturbance
- Scrub

#### Water Features

- Waterbodies
- Brooks

Insert Map Showing  
Five Year Plan Within District 15





**CORNER BROOK PULP & PAPER LIMITED  
FIVE YEAR OPERATING PLAN**



|                        |                |                         |                                  |
|------------------------|----------------|-------------------------|----------------------------------|
| <b>FMD:</b>            | <u>15</u>      | <b>Plan Period:</b>     | <u>Jan 1,2019 - Dec 31, 2023</u> |
| <b>Operating Area:</b> | <u>Howards</u> | <b>Inventory Map #:</b> | <u>070</u>                       |
| <b>Harvest Area #:</b> | <u>K-15-62</u> | <b>NTS Map #:</b>       | <u>12B16</u>                     |

**Forest Inventory**

| <b>Gross</b>                          | <b>Net</b>                            | <b>Working Group</b> |
|---------------------------------------|---------------------------------------|----------------------|
| Volume: <u>215,931</u> m <sup>3</sup> | Volume: <u>177,063</u> m <sup>3</sup> | bF: <u>86</u> %      |
| Area: <u>2,467</u> ha                 | Area: <u>2,023</u> ha                 | bS: <u>14</u> %      |

**Operational Considerations:**

|                     |  |
|---------------------|--|
| Harvest System:     | <u>Mechanical, Conventional</u>  |
| Terrain Conditions: | <u>Hilly terrain with steep slopes, shallow to deep topsoil over mineral soil. The merchantable forest is broken up by bog, scrub and areas of Hardwood.</u> |

**Other Considerations and Mitigations:**

Consultation was held with all Outfitters in Fmd 15. Harvest and road plans were presented to each Outfitter for review. Responses from individual Outfitter's were dealt with and alterations (if required) were made to the Plan.

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## **Forest Management District 15 Five Year Plan ( 2019- 2023 )**

**Howards ( K - 15-62 )**

**Scale:** 1:53,000

## Forest Inv Map 070

NTS Map 12B16

## LEGEND

## Five Year Plan Features

Legend:

- Five Year Plan Boundary
- Proposed Silviculture Area
- Crown Domestic Area
- Proposed Primary Road
- Potential Harvest
- Permanent Sample Plots

## Road Features

- TCH
- Paved Roads
- Resource Roads
- Winter Roads
- T'Railway Provincial Park
- Trails

## Linear Features

- Linear Features
  - UTM Grid
  - Contours
  - Transmission Lines
  - Protected Public Water Supply Area
  -  Wildlife Corridor

## Administration Boundaries

## Administration Boundaries

## Land Features

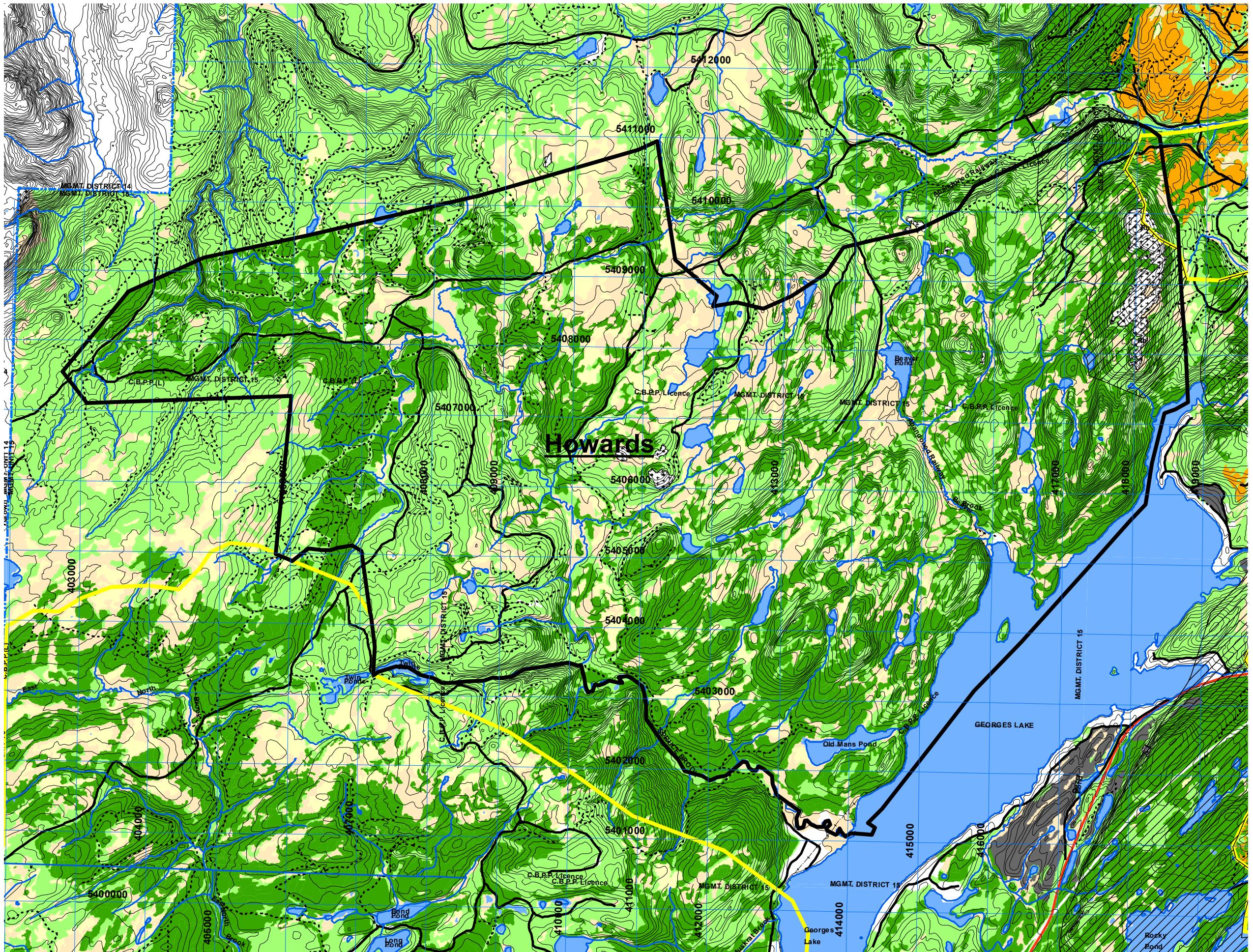
Land Features

- Forested Land
- Cutover
- Other disturbance

## Scrub

## Water Features

## Insert Map Showing Five Year Plan Within District 15





**CORNER BROOK PULP & PAPER LIMITED  
FIVE YEAR OPERATING PLAN**



|                        |                  |                         |                                  |
|------------------------|------------------|-------------------------|----------------------------------|
| <b>FMD:</b>            | <u>15</u>        | <b>Plan Period:</b>     | <u>Jan 1,2019 - Dec 31, 2023</u> |
| <b>Operating Area:</b> | <u>Stag Lake</u> | <b>Inventory Map #:</b> | <u>070, 071</u>                  |
| <b>Harvest Area #:</b> | <u>K-15-63</u>   | <b>NTS Map #:</b>       | <u>12A13, 12B16</u>              |

**Forest Inventory**

| <b>Gross</b>                         | <b>Net</b>                           | <b>Working Group</b> |
|--------------------------------------|--------------------------------------|----------------------|
| Volume: <u>69,086</u> m <sup>3</sup> | Volume: <u>56,651</u> m <sup>3</sup> | bF: <u>87</u> %      |
| Area: <u>778</u> ha                  | Area: <u>638</u> ha                  | bS: <u>13</u> %      |

**Operational Considerations:**

|                     |  |
|---------------------|--|
| Harvest System:     | <u>Mechanical, Conventional</u>  |
| Terrain Conditions: | <u>Hilly terrain with steep slopes, shallow to deep topsoil over mineral soil. The merchantable forest is broken up by bog, scrub and areas of Hardwood.</u> |

**Other Considerations and Mitigations:**

A landscape design project during the last Five Year Plan produced a series of no harvest zones along the TCH between Georges Lake and Corner Brook. These no harvest zones (with a few minor adjustments) will be extended to the new Five Year Plan for 2014 - 2018.

Consultation was held with all Outfitters in Fmd 15. Harvest and road plans were presented to each Outfitter for review. Responses from individual Outfitter's were dealt with and alterations (if required) were made to the Plan.

CBPP will adhere to Wildlife Division's reccomendations with regard to forest management activities in areas designated as Pine marten habitat.

Consultation with the Wildlife Division regarding Caribou populations and habitat, has resulted in mitigative measures being adopted in this Five Year Plan. These measures ensure adequate habitat is maintained for Caribou.

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## Forest Management District 15 Five Year Plan ( 2019- 2023 )

### Stag Lake ( K - 15-63 )

Scale: 1:50,000

Forest Inv Map 070, 071  
NTS Map 12A13, 12B16

#### LEGEND

##### Five Year Plan Features

- Five Year Plan Boundary
- Proposed Silviculture Area
- Crown Domestic Area
- Proposed Primary Road
- Potential Harvest
- Permanent Sample Plots

##### Road Features

- TCH
- Paved Roads
- Resource Roads
- Winter Roads
- TRailway Provincial Park
- Trails

##### Linear Features

- UTM Grid
- Contours
- Transmission Lines
- Protected Public Water Supply Area
- Wildlife Corridor

##### Administration Boundaries

- Management Boundary
- Ownership Boundary

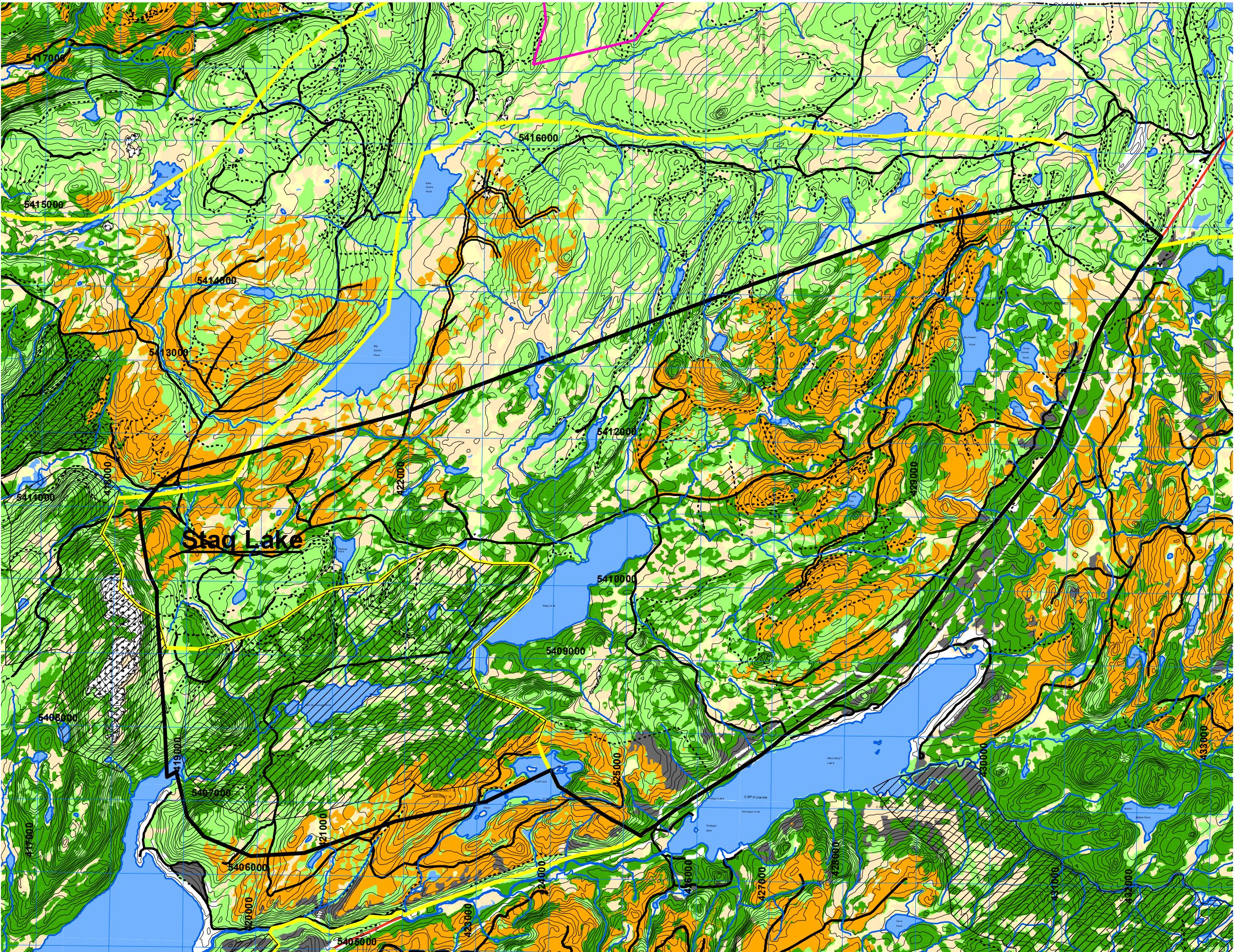
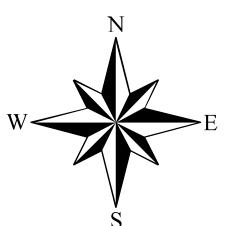
##### Land Features

- Forested Land
- Cutover
- Other disturbance
- Scrub

##### Water Features

- Waterbodies
- Brooks

Insert Map Showing  
Five Year Plan Within District 15





**CORNER BROOK PULP & PAPER LIMITED  
FIVE YEAR OPERATING PLAN**



**FMD:** 15 **Plan Period:** Jan 1, 2019 - Dec 31, 2023  
**Operating Area:** Stag Hill **Inventory Map #:** 070, 071  
**Harvest Area #:** K-15-64 **NTS Map #:** 12A13, 12B16

**Forest Inventory**

| <b>Gross</b>                   | <b>Net</b>                     | <b>Working Group</b> |
|--------------------------------|--------------------------------|----------------------|
| Volume: 278,278 m <sup>3</sup> | Volume: 228,188 m <sup>3</sup> | bF: 87 %             |
| Area: 2,622 ha                 | Area: 2,150 ha                 | bS: 13 %             |

**Operational Considerations:**

Harvest System: Mechanical, Conventional

Terrain Conditions: Hilly terrain with steep slopes, shallow to deep topsoil over mineral soil. The merchantable forest is broken up by bog, scrub and areas of Hardwood.

**Other Considerations and Mitigations:**

A landscape design project during the last Five Year Plan produced a series of no harvest zones along the TCH between Georges Lake and Corner Brook. These no harvest zones (with a few minor adjustments) will be extended to the new Five Year Plan for 2019 - 2023.

Consultation was held with all Outfitters in Fmd 15. Harvest and road plans were presented to each Outfitter for review. Responses from individual Outfitter's were dealt with and alterations (if required) were made to the Plan.

This operating area is partially contained inside the Protected Water Supply for the city of Corner Brook. Forestry activities will conform with the Environmental Protection Guidelines related to operations within Protected Water Supply Areas and conditions of the City's permit.

CBPP will adhere to Wildlife Division's reccomendations with regard to forest management activities in areas designated as Pine marten habitat.

Consultation with the Wildlife Division regarding Caribou populations and habitat, has resulted in mitigative measures being adopted in this Five Year Plan. These measures ensure adequate habitat is maintained for Caribou.

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For further information on the SFM plan visit our website @ <http://www.cbpl.com/>.



## **Forest Management District 15 Five Year Plan ( 2019- 2023 )**

## Stag Hill ( K - 15-64)

**Scale: 1:71,000**

## Forest Inv Map 070, 071 NTS Map 12A13, 12B16

## LEGEND

## Five Year Plan Features

- Five Year Plan Boundary
- Proposed Silviculture Area
- Crown Domestic Area
- Proposed Primary Road
- Potential Harvest
- Permanent Sample Plots

## Road Features

- TCH
- Paved Roads
- Resource Roads
- Winter Roads
- T'Railway Provincial Park
- Trails

## Linear Features

- Linear Features
  - UTM Grid
  - Contours
  - Transmission Lines
  - Protected Public Water Supply Area
  -  Wildlife Corridor

## Administration Boundaries

## Administration Boundaries

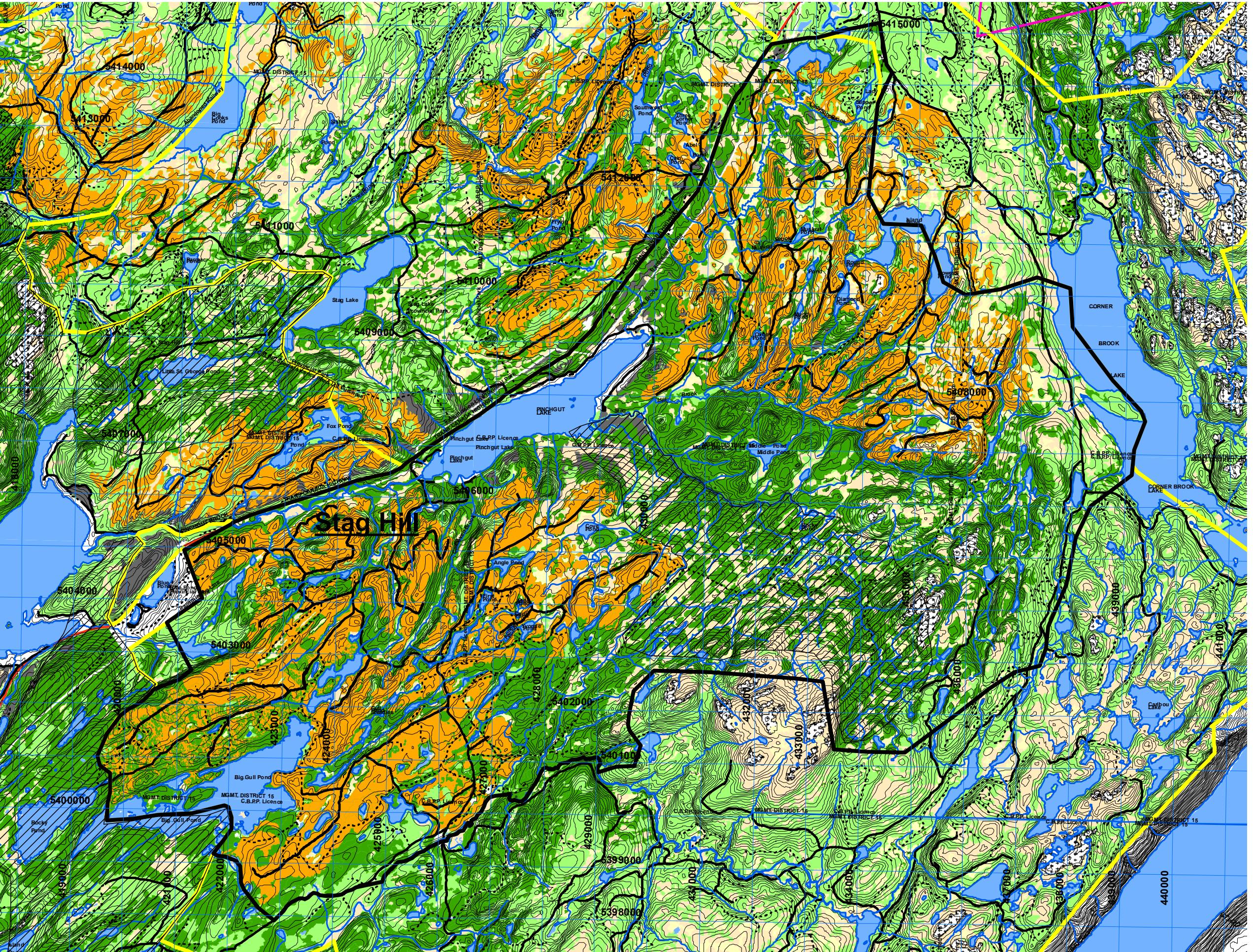
## Land Features

- Forested Land
- Cutover
- Other disturbance

## Scrub

## Water Features

## Insert Map Showing Five Year Plan Within District 15





**CORNER BROOK PULP & PAPER LIMITED  
FIVE YEAR OPERATING PLAN**



**FMD:** 15 **Plan Period:** Jan 1,2019 - Dec 31, 2023  
**Operating Area:** Steady Brook Lake **Inventory Map #:** 071  
**Harvest Area #:** K-15-65 **NTS Map #:** 12A13

**Forest Inventory**

| <b>Gross</b>                         | <b>Net</b>                           | <b>Working Group</b> |
|--------------------------------------|--------------------------------------|----------------------|
| Volume: <u>86,829</u> m <sup>3</sup> | Volume: <u>71,200</u> m <sup>3</sup> | bF: <u>84</u> %      |
| Area: <u>833</u> ha                  | Area: <u>683</u> ha                  | bS: <u>16</u> %      |

**Operational Considerations:**

Harvest System: Mechanical, Conventional  
Terrain Conditions: Hilly terrain with steep slopes, shallow to deep topsoil over mineral soil. The merchantable forest is broken up by bog, scrub and areas of Hardwood.

**Other Considerations and Mitigations:**

Consultation was held with all Outfitters in Fmd 15. Harvest and road plans were presented to each Outfitter for review. Responses from individual Outfitter's were dealt with and alterations (if required) were made to the Plan.

This operating area is partially contained inside the Protected Water Supply for the town of Steady Brook. Forestry activities will conform with the Environmental Protection Guidelines related to operations within Protected Water Supply Areas.

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Consultation with the Wildlife Division regarding Caribou populations and habitat, has resulted in mitigative measures being adopted in this Five Year Plan. These measures ensure adequate habitat is maintained for Caribou.

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<http://www.cbpl.com/>



## Forest Management District 15 Five Year Plan ( 2019- 2023 )

Steady Brook Lake ( K - 15-65 )

Scale: 1:44,000

Forest Inv Map 071

NTS Map 12A13

### LEGEND

#### Five Year Plan Features

- Five Year Plan Boundary
- Proposed Silviculture Area
- Crown Domestic Area
- Proposed Primary Road
- Potential Harvest
- Permanent Sample Plots

#### Road Features

- TCH
- Paved Roads
- Resource Roads
- Winter Roads
- TRailway Provincial Park
- Trails

#### Linear Features

- UTM Grid
- Contours
- Transmission Lines
- Protected Public Water Supply Area
- Wildlife Corridor

#### Administration Boundaries

- Management Boundary
- Ownership Boundary

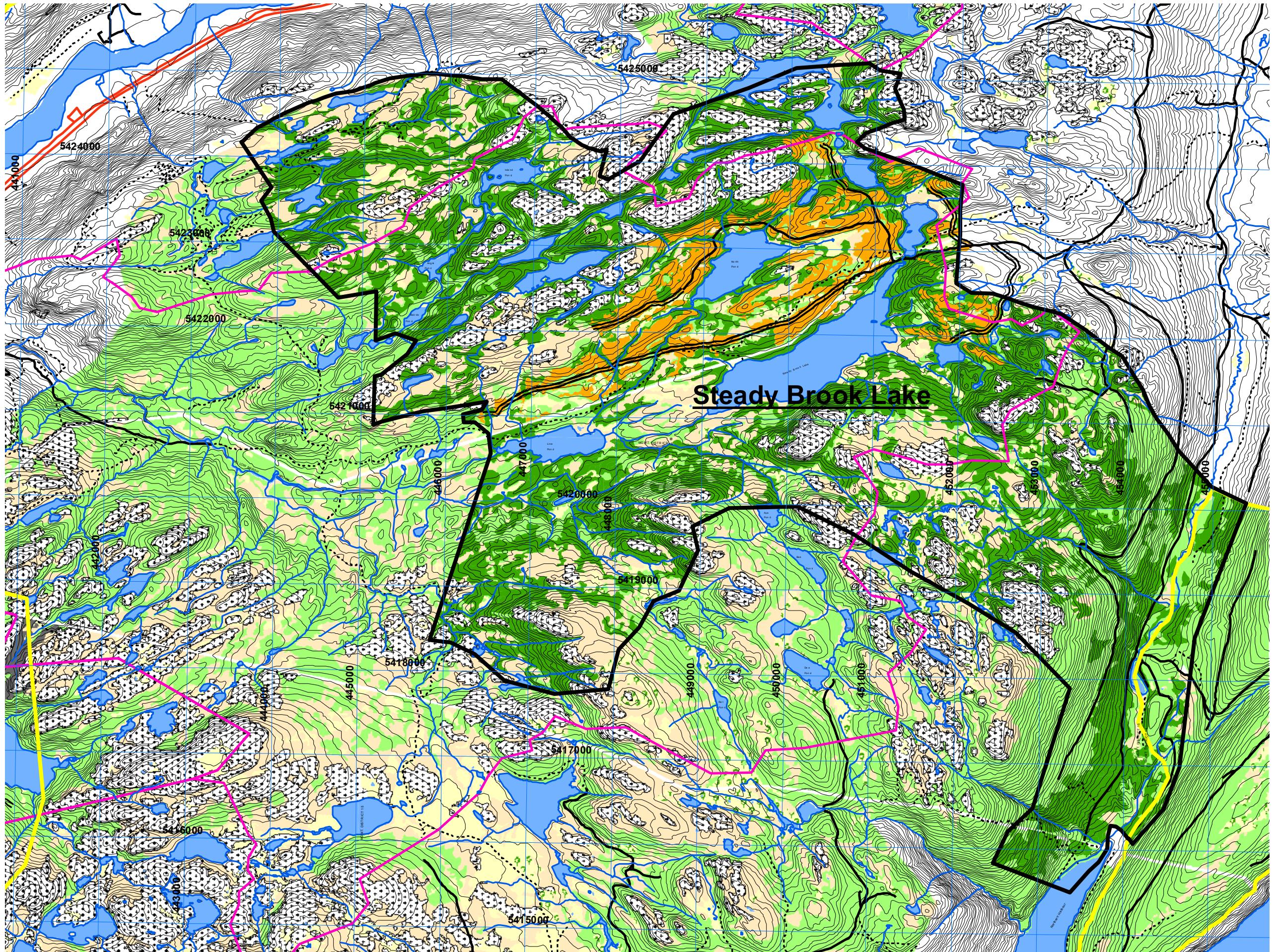
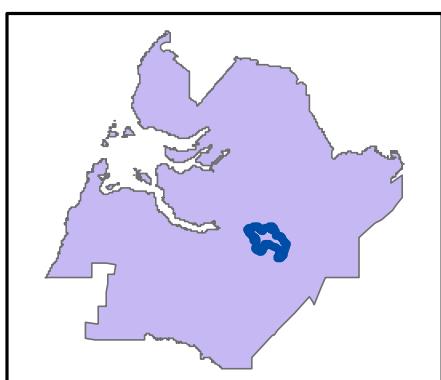
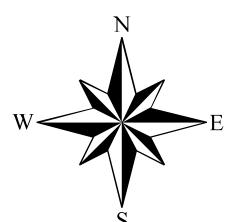
#### Land Features

- Forested Land
- Cutover
- Other disturbance
- Scrub

#### Water Features

- Waterbodies
- Brooks

Insert Map Showing  
Five Year Plan Within District 15





**CORNER BROOK PULP & PAPER LIMITED  
FIVE YEAR OPERATING PLAN**



|                        |                     |                         |                                  |
|------------------------|---------------------|-------------------------|----------------------------------|
| <b>FMD:</b>            | <u>15</u>           | <b>Plan Period:</b>     | <u>Jan 1,2019 - Dec 31, 2023</u> |
| <b>Operating Area:</b> | <u>Pynn's Brook</u> | <b>Inventory Map #:</b> | <u>060</u>                       |
| <b>Harvest Area #:</b> | <u>K-15-66</u>      | <b>NTS Map #:</b>       | <u>12H03</u>                     |

**Forest Inventory**

**Gross**

Volume: 99,020 m<sup>3</sup>  
Area: 1,065 ha

**Net**

Volume: 81,196 m<sup>3</sup>  
Area: 873 ha

**Working Group**

bF: 73 %  
bS: 27 %

**Operational Considerations:**

Harvest System: Mechanical, Conventional  
Terrain Conditions: Hilly terrain with steep slopes, shallow to deep topsoil over mineral soil. The merchantable forest is broken up by bog, scrub and areas of Hardwood.

**Other Considerations and Mitigations:**

Consultation was held with all Outfitters in Fmd 15. Harvest and road plans were presented to each Outfitter for review. Responses from individual Outfitter's were dealt with and alterations (if required) were made to the Plan.

This operating area is partially contained inside the Protected Water Supply for the town of Deer Lake. Forestry activities will conform with the Environmental Protection Guidelines related to operations within Protected Water Supply Areas.

CBPP will adhere to Wildlife Division's reccomendations with regard to forest management activities in areas designated as Pine marten habitat.

Consultation with the Wildlife Division regarding Caribou populations and habitat, has resulted in mitigative measures being adopted in this Five Year Plan. These measures ensure adequate habitat is maintained for Caribou.

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## Forest Management District 15 Five Year Plan ( 2019- 2023 )

Pynns Brook ( K - 15-66 )

Scale: 1:65,000

Forest Inv Map 060

NTS Map 12H3

### LEGEND

#### Five Year Plan Features

- Five Year Plan Boundary
- Proposed Silviculture Area
- Crown Domestic Area
- Proposed Primary Road
- Potential Harvest
- Permanent Sample Plots

#### Road Features

- TCH
- Paved Roads
- Resource Roads
- Winter Roads
- TRailway Provincial Park
- Trails

#### Linear Features

- UTM Grid
- Contours
- Transmission Lines
- Protected Public Water Supply Area
- Wildlife Corridor

#### Administration Boundaries

- Management Boundary
- Ownership Boundary

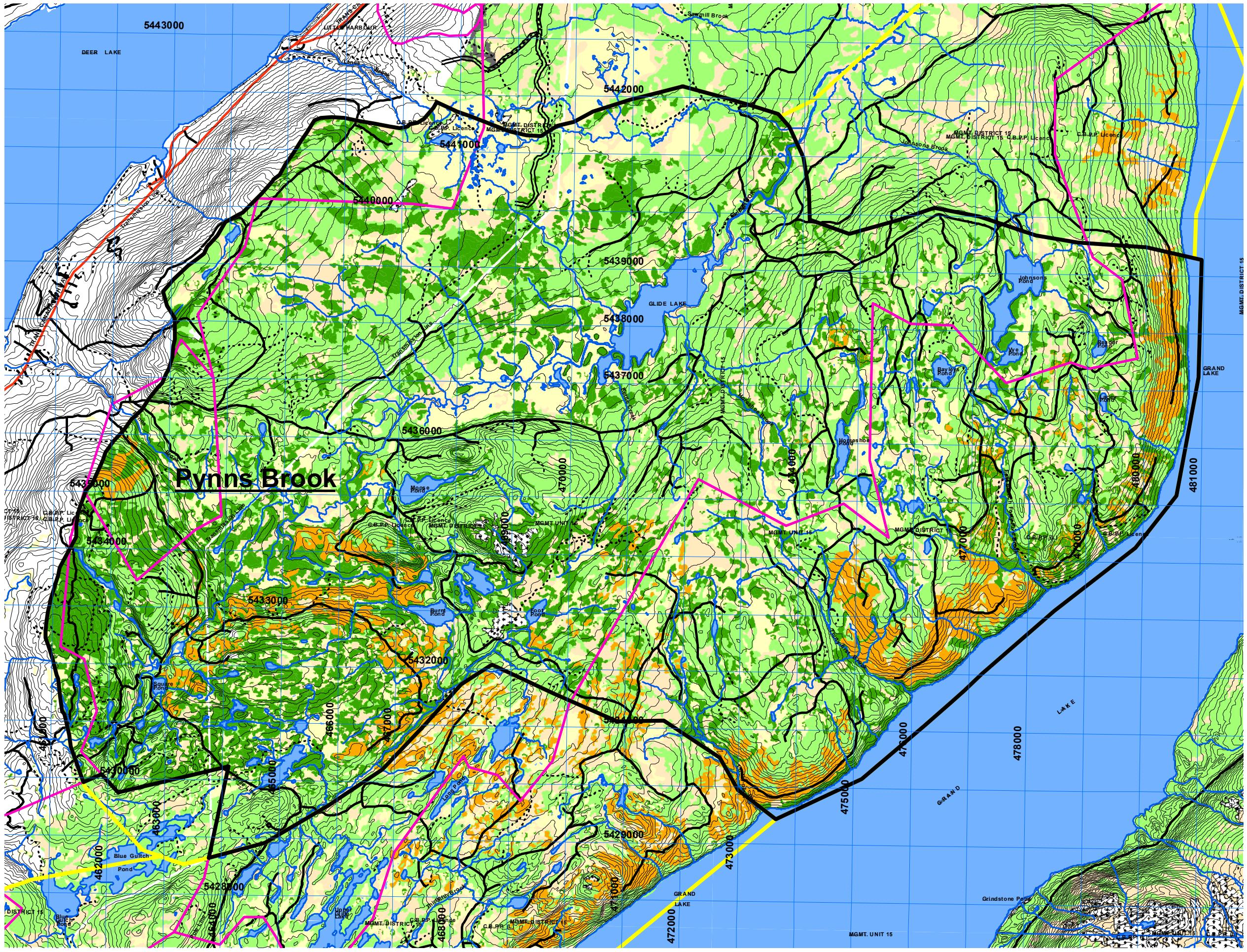
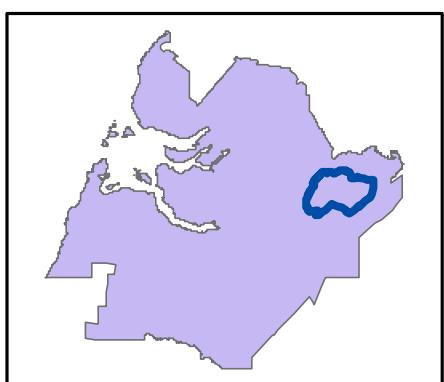
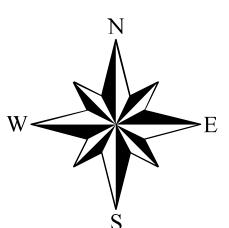
#### Land Features

- Forested Land
- Cutover
- Other disturbance
- Scrub

#### Water Features

- Waterbodies
- Brooks

Insert Map Showing  
Five Year Plan Within District 15





**CORNER BROOK PULP & PAPER LIMITED  
FIVE YEAR OPERATING PLAN**



|                        |                  |                         |                                  |
|------------------------|------------------|-------------------------|----------------------------------|
| <b>FMD:</b>            | <u>15</u>        | <b>Plan Period:</b>     | <u>Jan 1,2019 - Dec 31, 2023</u> |
| <b>Operating Area:</b> | <u>Goose Arm</u> | <b>Inventory Map #:</b> | <u>049, 059</u>                  |
| <b>Harvest Area #:</b> | <u>K-15-68</u>   | <b>NTS Map #:</b>       | <u>12H04, 12H05</u>              |

**Forest Inventory**

| <b>Gross</b>                          | <b>Net</b>                            | <b>Working Group</b> |
|---------------------------------------|---------------------------------------|----------------------|
| Volume: <u>534,104</u> m <sup>3</sup> | Volume: <u>437,965</u> m <sup>3</sup> | bF: <u>86</u> %      |
| Area: <u>5,573</u> ha                 | Area: <u>4,570</u> ha                 | bS: <u>14</u> %      |

**Operational Considerations:**

|                     |  |
|---------------------|--|
| Harvest System:     | <u>Mechanical, Conventional</u>  |
| Terrain Conditions: | <u>Hilly terrain with steep slopes, shallow to deep topsoil over mineral soil. The merchantable forest is broken up by bog, scrub and areas of Hardwood.</u> |

**Other Considerations and Mitigations:**

Consultation was held with all Outfitters in Fmd 15. Harvest and road plans were presented to each Outfitter for review. Responses from individual Outfitter's were dealt with and alterations (if required) were made to the Plan.

Consultation with the Wildlife Division regarding Caribou populations and habitat, has resulted in mitigative measures being adopted in this Five Year Plan. These measures ensure adequate habitat is maintained for Caribou.

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## **Forest Management District 15 Five Year Plan ( 2019- 2023 )**

Goose Arm Overview ( K - 15-68 )

**Scale: 1:130,000**

## Forest Inv Map 049, 059

NTS Map 12H4, 12H5

## LEGEND

## Five Year Plan Features

- Five Year Plan Boundary
- Proposed Silviculture Area
- Crown Domestic Area
- Proposed Primary Road
- Potential Harvest
- Permanent Sample Plots

## Road Features

- TCH
- Paved Roads
- Resource Roads
- Winter Roads
- T'Railway Provincial Park
- Trails

## Linear Features

- Linear Features
  - UTM Grid
  - Contours
  - Transmission Lines
- Protected Public Water Supply Area
- Wildlife Corridor

## Administration Boundaries

- Management Boundary
- Ownership Boundary

## Land Features



Legend:

- Forested Land
- Cutover
- Other disturbance

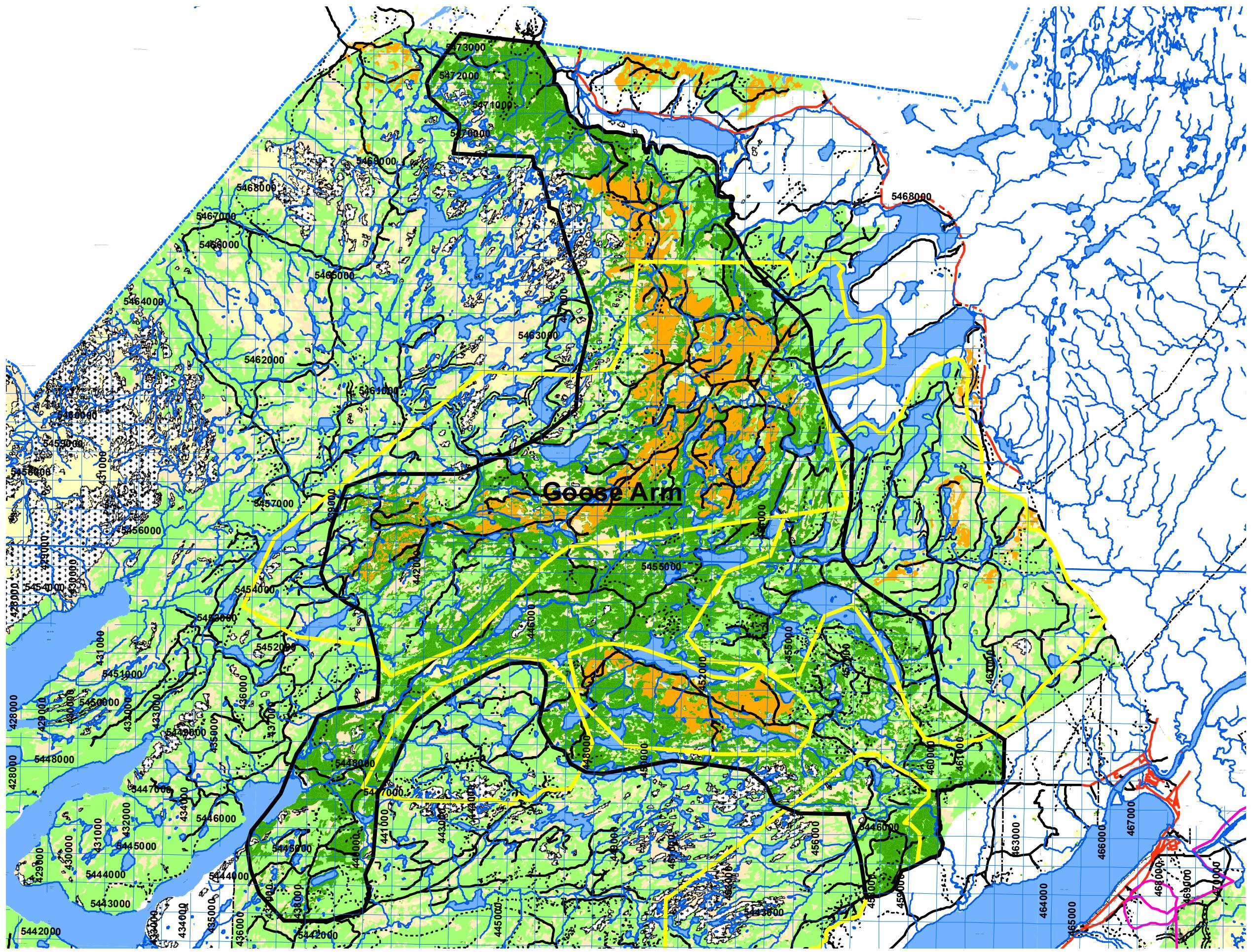
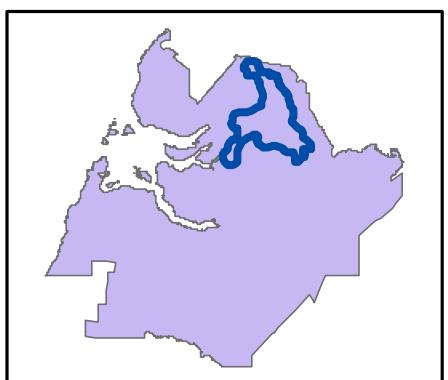
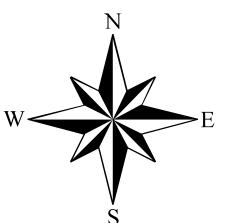
## Scrub

## Water Features



### Waterbodies

## Insert Map Showing Five Year Plan Within District 15





## Forest Management District 15 Five Year Plan ( 2019- 2023 )

### Goose Arm ( K - 15-68 ) Map 1

Scale: 1:80,000

Forest Inv Map 049, 059  
NTS Map 12H4, 12H5

#### LEGEND

##### Five Year Plan Features

- Five Year Plan Boundary
- Proposed Silviculture Area
- Crown Domestic Area
- Proposed Primary Road
- Potential Harvest
- Permanent Sample Plots

##### Road Features

- TCH
- Paved Roads
- Resource Roads
- Winter Roads
- TRailway Provincial Park
- Trails

##### Linear Features

- UTM Grid
- Contours
- Transmission Lines
- Protected Public Water Supply Area
- Wildlife Corridor

##### Administration Boundaries

- Management Boundary
- Ownership Boundary

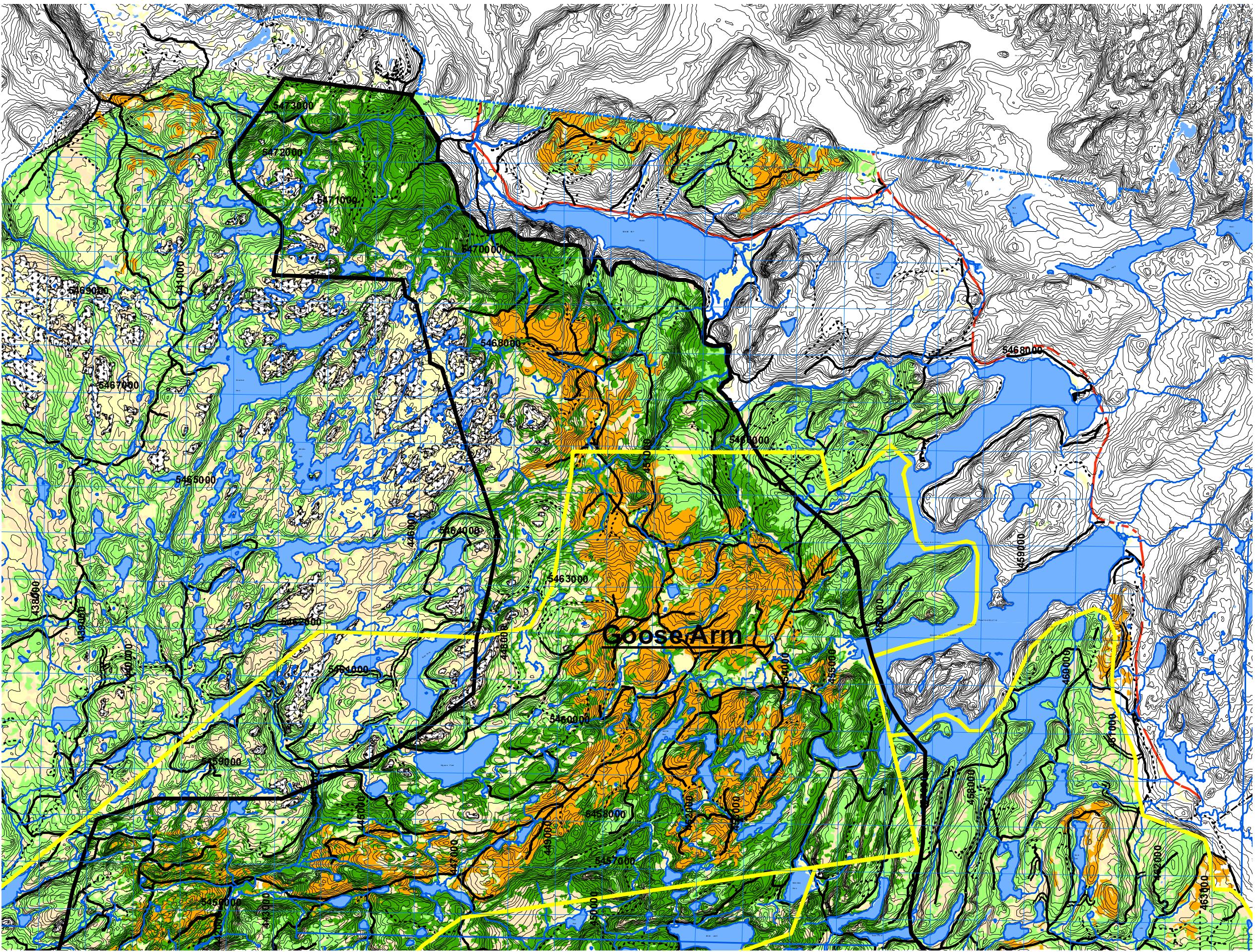
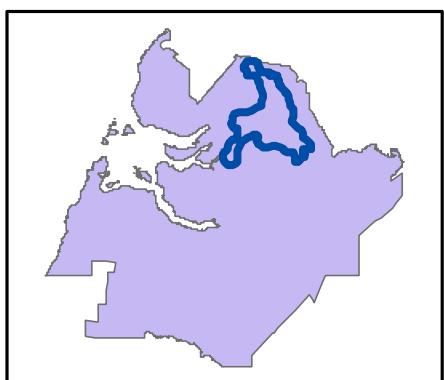
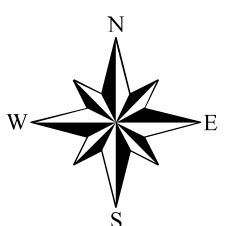
##### Land Features

- Forested Land
- Cutover
- Other disturbance
- Scrub

##### Water Features

- Waterbodies
- Brooks

Insert Map Showing  
Five Year Plan Within District 15





## Forest Management District 15 Five Year Plan ( 2019- 2023 )

### Goose Arm ( K - 15-68 ) Map 2

Scale: 1:80,000

Forest Inv Map 049, 059  
NTS Map 12H4, 12H5

#### LEGEND

##### Five Year Plan Features

- Five Year Plan Boundary
- Proposed Silviculture Area
- Crown Domestic Area
- Proposed Primary Road
- Potential Harvest
- Permanent Sample Plots

##### Road Features

- TCH
- Paved Roads
- Resource Roads
- Winter Roads
- TRailway Provincial Park
- Trails

##### Linear Features

- UTM Grid
- Contours
- Transmission Lines
- Protected Public Water Supply Area
- Wildlife Corridor

##### Administration Boundaries

- Management Boundary
- Ownership Boundary

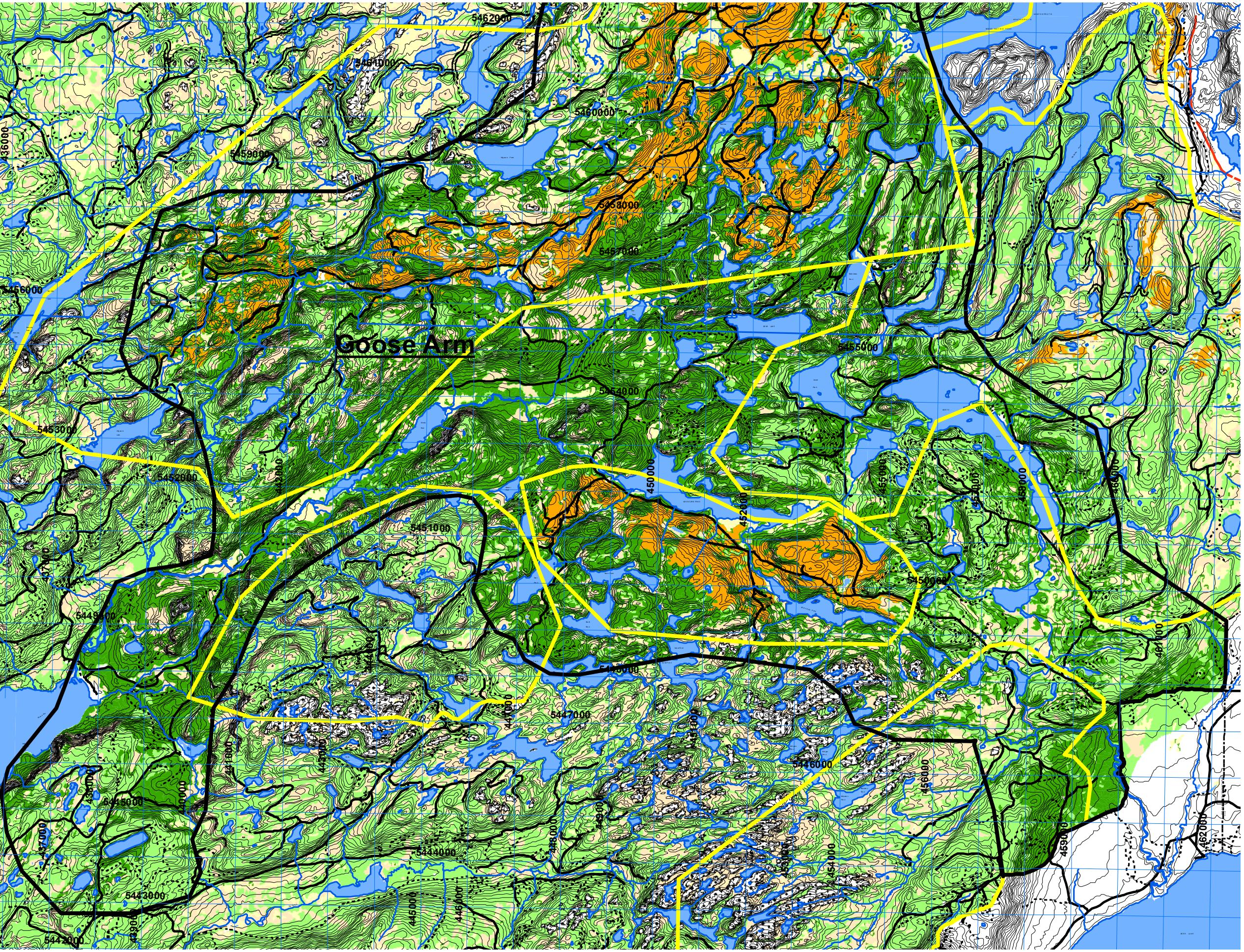
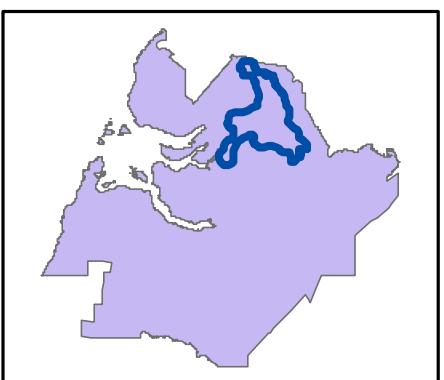
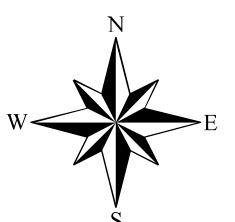
##### Land Features

- Forested Land
- Cutover
- Other disturbance
- Scrub

##### Water Features

- Waterbodies
- Brooks

Insert Map Showing  
Five Year Plan Within District 15





**CORNER BROOK PULP & PAPER LIMITED  
FIVE YEAR OPERATING PLAN**



|                        |                    |                         |                                  |
|------------------------|--------------------|-------------------------|----------------------------------|
| <b>FMD:</b>            | <u>15</u>          | <b>Plan Period:</b>     | <u>Jan 1,2019 - Dec 31, 2023</u> |
| <b>Operating Area:</b> | <u>12 Mile Dam</u> | <b>Inventory Map #:</b> | <u>071</u>                       |
| <b>Harvest Area #:</b> | <u>K-15-69</u>     | <b>NTS Map #:</b>       | <u>12A13</u>                     |

**Forest Inventory**

**Gross**

Volume: 28,767 m<sup>3</sup>  
Area: 301 ha

**Net**

Volume: 23,589 m<sup>3</sup>  
Area: 247 ha

**Working Group**

bF: 88 %  
bS: 12 %

**Operational Considerations:**

Harvest System: Mechanical, Conventional  
Terrain Conditions: Hilly terrain with steep slopes, shallow to deep topsoil over mineral soil. The merchantable forest is broken up by bog, scrub and areas of Hardwood.

**Other Considerations and Mitigations:**

A landscape design project during the last Five Year Plan produced a series of no harvest zones along the TCH between Georges Lake and Corner Brook. These no harvest zones (with a few minor adjustments) will be extended to the new Five Year Plan for 2019 - 2023.

Consultation was held with all Outfitters in Fmd 15. Harvest and road plans were presented to each Outfitter for review. Responses from individual Outfitter's were dealt with and alterations (if required) were made to the Plan.

This operating area is contained within the Protected Water Supply for the City of Corner Brook. Forestry activities will conform with the Environmental Protection Guidelines related to operations within Protected Water Supply Areas.

CBPP will adhere to Wildlife Division's reccomendations with regard to forest management activities in areas designated as Pine marten habitat.

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## Forest Management District 15 Five Year Plan ( 2019- 2023 )

### 12 Mile Dam ( K-15-69 )

Scale: 1:30,000

Forest Inv Map 071

NTS Map 12A13

#### LEGEND

##### Five Year Plan Features

- Five Year Plan Boundary
- Proposed Silviculture Area
- Crown Domestic Area
- Proposed Primary Road
- Potential Harvest
- Permanent Sample Plots

##### Road Features

- TCH
- Paved Roads
- Resource Roads
- Winter Roads
- TRailway Provincial Park
- Trails

##### Linear Features

- UTM Grid
- Contours
- Transmission Lines
- Protected Public Water Supply Area
- Wildlife Corridor

##### Administration Boundaries

- Management Boundary
- Ownership Boundary

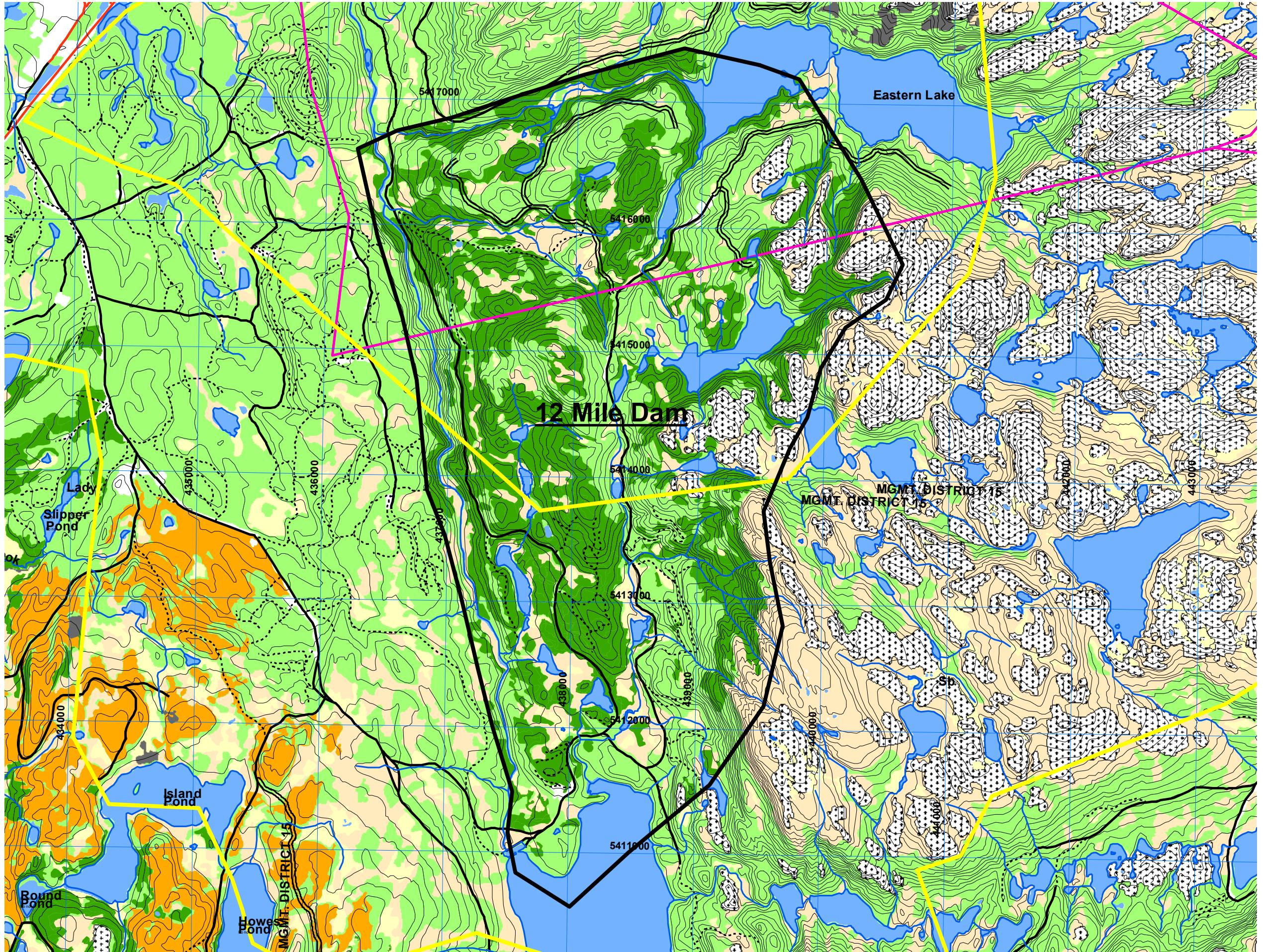
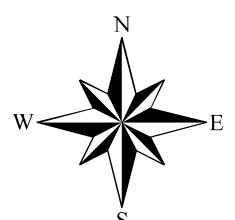
##### Land Features

- Forested Land
- Cutover
- Other disturbance
- Scrub

##### Water Features

- Waterbodies
- Brooks

Insert Map Showing  
Five Year Plan Within District 15





**CORNER BROOK PULP & PAPER LIMITED  
FIVE YEAR OPERATING PLAN**



|                        |                    |                         |                                  |
|------------------------|--------------------|-------------------------|----------------------------------|
| <b>FMD:</b>            | <u>15</u>          | <b>Plan Period:</b>     | <u>Jan 1,2019 - Dec 31, 2023</u> |
| <b>Operating Area:</b> | <u>Alder Brook</u> | <b>Inventory Map #:</b> | <u>070</u>                       |
| <b>Harvest Area #:</b> | <u>K-15-70</u>     | <b>NTS Map #:</b>       | <u>12B16</u>                     |

**Forest Inventory**

**Gross**

Volume: 72,738 m<sup>3</sup>  
Area: 756 ha

**Net**

Volume: 59,645 m<sup>3</sup>  
Area: 620 ha

**Working Group**

bF: 90 %  
bS: 10 %

**Operational Considerations:**

Harvest System: Mechanical, Conventional  
Terrain Conditions: Hilly terrain with steep slopes, shallow to deep topsoil over mineral soil. The merchantable forest is broken up by bog, scrub and areas of Hardwood.

**Other Considerations and Mitigations:**

Consultation was held with all Outfitters in Fmd 15. Harvest and road plans were presented to each Outfitter for review. Responses from individual Outfitter's were dealt with and alterations (if required) were made to the Plan.

This operating area is partially within the Protected Water Supply for the Town of Benoits Cove. Forestry activities will conform with the Environmental Protection Guidelines related to operations within Protected Water Supply Areas.

CBPP will adhere to Wildlife Division's reccomendations with regard to forest management activities in areas designated as Pine marten habitat.

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## Forest Management District 15 Five Year Plan ( 2019- 2023 )

Alder Brook ( K- 15-70 )

Scale: 1:50,000

Forest Inv Map 070

NTS Map 12B16

### LEGEND

#### Five Year Plan Features

- Five Year Plan Boundary
- Proposed Silviculture Area
- Crown Domestic Area
- Proposed Primary Road
- Potential Harvest
- Permanent Sample Plots

#### Road Features

- TCH
- Paved Roads
- Resource Roads
- Winter Roads
- TRailway Provincial Park
- Trails

#### Linear Features

- UTM Grid
- Contours
- Transmission Lines
- Protected Public Water Supply Area
- Wildlife Corridor

#### Administration Boundaries

- Management Boundary
- Ownership Boundary

#### Land Features

- Forested Land
- Cutover
- Other disturbance
- Scrub

#### Water Features

- Waterbodies
- Brooks

Insert Map Showing  
Five Year Plan Within District 15

