

Chapter 4

Summary and Recommendations

4.1 Summary

As a result of the inventory program, the total area of peatlands in Nova Scotia is now estimated to be in the order of 435,000 acres (175,390 ha). Original estimates based on soil series maps (400,000 acres, 161,810 ha) are thus still valid, assuming a $\pm 10\%$ variability in either estimate of resource.

Work carried out by this inventory program provided resource information for approximately 20 percent of the total peatland resource area in the Province. Roughly 81,750 acres (33 100 ha) of peatland have been surveyed, representing 267 individual deposits and 7,640 sampling sites. Data shows that distinct differences exist between peatlands in various parts of the province. Moss grade peats are very thin in southern Nova Scotia and very thick in most of the other regions, particularly in Hants County. Fuel grade peats are thickest and more highly humified in southwestern Nova Scotia than elsewhere in the Province. The thinnest fuel grade peat layers generally are found in the Highlands of Cape Breton Island.

Peatlands of inland and lowland areas are more heavily treed. Hants and Cumberland counties have some of the most heavily treed surfaces in the province.

Coastal and Highland peatlands have fewer trees and relatively higher occurrence of "*Scirpus*" lawns which often result in surficial peats which are densely permeated with *Scirpus* remnants.

Forty deposits have been presented as favourable sites for development as either fuel or peat moss operations.

Fourteen fuel grade deposits have been directly discussed, of which 13 are located in Southwestern Nova Scotia and one is located in Hants County. These deposits have a total area of 5,908 acres (2 391 ha) with an anticipated 10.37 million tons (9.43 Mte) of fuel grade peats at 50% moisture content. Considered to represent some of the best fuel peat resources in the Province, these deposits, if developed to capacity, could displace an estimated 16.57 million barrels of heating oil over the life of the harvesting operations.

Some 26 moss grade deposits have also been presented in this report as being prime candidates for the moss peat industry. Eight of the best deposits in the province are located in Hants County, three in Cumberland County, five in Guysborough County, one in Halifax County, and nine on Cape Breton Island. These deposits together amount to 8,406 acres (3 402 ha) of moss grade resource, containing roughly 14.27 million tons (13.39 Mte) of peat moss at 50% moisture content. This tonnage could represent about 275 million bales of peat moss assuming 75% recovery.

Altogether the program has surveyed 81,759 acres (33 087 ha) of peatland, representing calculated tonnages for deposits greater in thickness than 3 feet (1 m) of 46.4 million tons (2.2 Mte) for moss grade peats and 47.84 million tons (43.5 Mte) for fuel grade peats. If resource parameters are extrapolated to include all peatland, the total moss grade and fuel grade resources would be in the order of 410 and 380 million tons (373 and 346 Mte) respectively.

The substantial fuel peat resources in Southwestern Nova Scotia, and the large number of resource based industries now relying on oil for the major part of their energy demand, make southwestern Nova Scotia the most feasible location for the development of a fuel peat based industry.

The resources of this region and others show great promise for development into viable industries in the province. However, as most peatlands in the province exist on Crown or Crown-lease lands, it falls upon the province to manage these resources in such a way that they will provide the maximum ecological and socio-economic benefits to the region.

4.2 Recommendations

Policy

- a. develop a set of guidelines or a policy which would ensure that the maximum benefit is realized to the province from its peat resource.
- b. co-ordinate efforts between the departments of Lands and Forests, Agriculture and Marketing, Environment and Mines and Energy to establish the optimum use for significant peat deposit.

Development of the Resource

- a. conduct a market study to ascertain the impact and viability of developing peat moss and peat fuel operations in the Province and to evaluate the peat markets locally and abroad.
- b. promote use of the resource to both local and non-Nova Scotian firms that would be interested in peat production.
- c. ensure the provision of technical assistance to interested developers and provide incentives to parties interested in using peat for displacing imported oil.

Resource Evaluation

- a. maintain a data storage, retrieval, and processing system that will allow interactive manipulation and retrieval of inventory data as well as be able to add new information as it is received.
- b. develop or implement software systems that will refine primary resource inventory data to the point it can be used for delineating mineable reserves and evaluating the resource potential.