

**SUBJECT: PEAT MINING POLICY**

**Policy Number: MRE-004-2005**  
**File Number: 507 00 0001**

**Effective Date: July 21, 2005**  
**To Be Reviewed: July 21, 2009**  
**Approval: Original Signed by W. David Ferguson,  
 Deputy Minister, July 21, 2005**

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## **1.0 Policy Purpose**

It is the policy of the Department of Natural Resources to maximize the benefits of using peat, a non-renewable resource, by promoting increased processing in the Province and by addressing the issue of post-mining site reclamation.

## **2.0 Policy Background**

### ***2.1 Introduction***

Peatlands cover about 2% or 140 000 ha of the total land mass of New Brunswick. About 70% of the commercial-grade peat deposits occur on Crown Lands where their use is regulated by the *Quarriable Substances Act*. Currently, 80% of the peat extracted in New Brunswick comes from Crown Lands.

The Province of New Brunswick is the leading producer of peat in Canada and an important player on the international scene. The peat mining industry is a major contributor to the economy of eastern and northeastern New Brunswick. In 2004, the sector employed at peak 1,200 persons, 250 full time and 950 part time employees. The production of peat, including packaging, was valued at \$103 million. There is a finite and limited supply of commercial grade peat in New Brunswick and careful management of the resource base is necessary to sustain the industry over the long term.

### ***2.2 Historical Review***

In 1972, following a period of rapid expansion in the number of peat mining operations, the Province, through the Community Improvement Corporation and under the Federal Regional Economic Development agreements, undertook a series of detailed investigations of this industry sector. These studies were conducted in response to industry's financial problems brought on by production overcapacity. The studies concluded that the royalty and land rental system had in a large part been responsible for the situation.

In 1975, a preliminary aerial photography inventory of provincial peatlands was completed. Subsequently, the Department undertook a detailed field inventory of peat as an activity under the Canada - New Brunswick General Development Agreement. The investigation of the peat resources of the province was completed by the Department in 1983.

In 1979, Government approved the Crown Peat Resources Management Policy. In 1987, Regulation 87-83, the Environmental Impact Assessment Regulation - *Clean Environment Act*, came into effect. Under that Act, all peat-mining project proposals must be registered with the Minister of Environment and Local Government.

In 1987, at the request of the Cabinet Committee on Economic Policy and Programs, a review of the provincial policies with respect to the peat industry was undertaken. A revised Crown Peat Resource Management Policy was approved in 1988. Adoption of that new

policy led to major changes to the *Quarriable Substances Act*, the legislative tool used to allocate rights to extract peat on Crown Lands and on April 1<sup>st</sup> 1993, a completely revised Act came into force.

Of the current 44 peat leases in the Province, nineteen have been issued by the Department since 1988. Prior to 1988, the process of issuing peat leases was not generally concerned with promoting a policy of value-added peat production and environmental impacts were not evaluated. Beginning in 1988, the peat lease process gradually became more structured. Internal consultations became an important part of the preliminary evaluation of project proposals and mechanisms were developed to ensure a coordinated approach between the Department of Natural Resources and the Department of Environment and Local Government. More careful evaluation of the potential environmental impacts of peat mining required that applicants conduct field studies in support of their lease applications.

Beginning in 1999, Government conducted an extensive review of all provincial policies regarding the peat industry sector leading to the announcement in 2001 of the Provincial Peat Policy on Peat Mining. The *Quarriable Substances Act* and Regulations were amended in 2004 to allow full implementation of the new policy on peat mining.

### **2.3 Policy Objectives**

- To ensure that the resource makes a maximum contribution to the long-term economic development objectives of the Province by encouraging and stimulating the development of secondary processing while sustaining the existing employment levels at peat operations;
- To encourage production from freehold as well as from Crown Lands;
- To ensure that peatlands that have been used for the extraction of peat are, upon cessation of activities, restored to a natural wetland habitat. An alternate economic use of the land may be considered, provided the basic wetland function of the peatland is preserved; and
- To collect sufficient security during the active life of the peat extraction operation to guarantee site reclamation at the end.

### **3.0 Policy Application**

This policy applies to all peatlands located on Crown Lands.

## **4.0 Allocation of Rights to Crown Peat**

### **4.1 Introduction**

The acquisition of rights to extract peat on Crown Lands is subject to a bidding process administered by the Minerals and Petroleum Development Branch. Crown peatlands of less than 40 ha in area may be excluded from the bidding process.

Any company or individual may at any time take the initiative to express its interest in commercial development of a specific peatland by completing a Quarry Application Form available at any office of the Department of Natural Resources. Upon receiving such an application, the Minister may decide to initiate a public call for proposals.

## **4.2 Call for proposals**

When the Minister decides to proceed with a call for proposals, a formal public announcement is made inviting any company or individual to submit a development proposal. Companies or individuals holding a Peat Exploration Licence are not eligible.

A four-member inter-departmental committee, consisting of two representatives from the Department of Natural Resources, one from the Department of Business New Brunswick and one from the Department of Environment and Local Government, evaluates the proposals. The committee shall be chaired by the Department of Natural Resources. Proposals are examined according to the following criteria:

- Background information and financial capability (20 points)
- Replacement of existing reserves (20 points)<sup>1</sup>
- Statement of markets (15 points)
- Economic considerations : value-added component and employment (15 points)
- Environmental considerations and site reclamation (15 points)
- Development proposal (10 points)
- Resource information (5 points)

A proposal must meet a certain minimum number of points in the following categories:

- Background information and financial capability : 15 points
- Environmental considerations and site reclamation : 10 points
- Economic considerations : 10 points
- An overall minimum score of 60 points out of a possible 100 total
- New entrants are required to process in the Province 100% of the peat extracted into value-added peat.

A proposal to expand current in-Province peat production capacity must direct 100% of the proposed additional production to value-added peat.

After evaluating the proposals, the committee shall forward its recommendations to the Minister of Natural Resources. The Minister reserves the right to reject any or all proposals. Acceptance of a proposal automatically leads to the issuance of a Peatland Exploration Licence.

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<sup>1</sup> Points given for replacement of abandoned production surfaces are calculated using the number of hectares currently abandoned and restored (or undergoing restoration) on peatland area leased from the Crown by the applicant. The respective hectares abandoned and restored are expressed as a percentage of the peatland that is subject of a tender call. Points are attributed in proportion to that percentage.

### **4.3 Peatland Exploration Licence**

A Peatland Exploration Licence gives the holder exclusive rights to conduct field tests in the particular area of interest. Only one licence may be held at any one time by a company or an individual.

#### 4.3.1 Terms and Conditions of a Peatland Exploration Licence

**The application fee for a Peatland Exploration Licence is \$100.** The term of the licence is of one-year duration with provision for a single, one-year renewal. At the end of each year, during the term of the licence, the applicant must submit **evidence of \$2.50 / ha** exploration-related expenditures or payment in lieu. The licence authorizes the holder to evaluate a peatland area of not more than 800 ha.

All exploration survey data obtained during the term of the licence are submitted to the Minister on surrender of the licence. This information is kept in public files unless it is submitted by a licensee who is subsequently granted a Peat Lease, in which case, the data is kept confidential for five years from the date of issuance of the lease.

Where the term of a peatland exploration licence expires and the applicant has not submitted a feasibility study report as per paragraph 9(1)(a) of the Act, the application process is terminated.

### **4.4 Peat Lease**

At any time during the term of a Peatland Exploration Licence, a licensee may apply for a peat lease. A peat lease may be granted to the holder of a valid Peatland Exploration Licence upon submitting the following:

- a summary of exploration work performed under the licence agreement with results and analyses and an up-to-date summary of exploration expenses;
- development, drainage and reclamation plans;
- botanical survey, hydrological assessment and, if applicable, a fish habitat and population survey;
- evidence that the project has been accepted by the Department of the Environment and Local Government under the Environmental Impact Assessment (EIA) Regulation;
- a security deposit corresponding to the reclamation effort required;
- a survey of the boundary of the proposed lease area by a registered New Brunswick land surveyor; and
- the rent set by regulation for the first year of the Peat Lease.

All reclamation plans must be approved before a Peat Lease is issued. After granting the Peat Lease, any significant change to these plans requires the written approval of the Minister. Only one Peat Lease may be issued on any given peatland.

#### 4.4.1 Terms and Conditions of a Peat Lease

A Peat Lease is issued for a term not exceeding ten years. The renewal of a Peat Lease is usually an administrative formality unless the lessee defaults on one or more conditions of the lease.

**The royalty rate for ordinary peat is \$0.10 per bale.** The royalty is \$0.06 per bale for peat processed in a value-added form. Royalties are due and payable semi-annually on or before the twentieth day of July and the twentieth day of January in each year. The royalty is reviewed from time to time and adjustments made, if necessary, based on a fair assessment of the market conditions, inflation, and the objectives of the policy.

### **5.0 Adding Value to the Peat**

Value-added is to be looked upon as any process, activity or technology that adds a significant amount to the existing value of a primary product. Value-added activity does not necessarily increase overall employment in industrial operations. However, value-added components would normally, by their nature, require workers. Overall, resource industries should become more stable, more viable and less susceptible to commodity price fluctuations given increased further processing capabilities.

In New Brunswick, any future increase in the peat production capacity on Crown Lands shall be exclusively through value-added activities. This implies capping the production of ordinary peat at current level. For the purpose of implementing this policy, “current level” is defined as the commercial peat surface area under lease on January 2001.

With respect to the peat mining industry, the following definitions of “value-added” will apply as follows:

- Bagged and screened material consisting of 100% peat will be considered value-added if the product is made in New Brunswick and sold for a plant f.o.b. price of twice the base price of an equivalent volume of ordinary peat, and
- Manufactured peat and peat-based products (ex.: peat pots, pellets, granules, peat mixes, etc.) will be considered value-added if the products are made in New Brunswick and sold for plant f.o.b. price of twice the base price of an equivalent volume of ordinary peat.

The ordinary price of peat is calculated using the average peat production value of the most recent two years for which information is available for New Brunswick as published by Statistics Canada (Publication No. 26-202-XIB - Canada's mineral production). If such information from Statistics Canada is not available or is not reasonably current (i.e. data older than five years will not be considered), similar information may be substituted.

### **6.0 Financial Assistance**

No direct financial assistance is provided to any peat companies for the purpose of extracting peat. However, all companies remain eligible for general assistance such as market studies,

technical and trade missions and value-added projects other than ordinary peat mixes. Funding approval or payments will be suspended if a company is found in default of its leasing agreement with any Government Department's acts and regulations.

## **7.0 Feeder Operations**

Feeder operations are defined as small operations producing peat from peatlands of less than 40 ha in total surface area. These operations typically sell bulk peat to major operators who process, bale and market the final product.

An application for a small-scale peat-only development on Crown Lands may be given consideration under the following conditions:

- A firm long-term (at least five years) contractual agreement must be established with at least one existing commercial operator that can guarantee a minimum price for the peat and a minimum annual volume purchase;
- The contractual agreement must be established with a firm that has a processing plant located in New Brunswick;
- The Department of Business New Brunswick must approve the business plan and be satisfied that the project is viable;
- The development proposal must be subjected to the same evaluation criteria that apply to commercial operations, including the necessity to undertake site reclamation work after cessation of extraction activities and the requirement to register the project under the Environmental Impact Assessment regulation, Clean Environment Act.

## **8.0 Reclamation of Peat Extraction Operations**

### ***8.1 Introduction***

All peat lessees shall have a reclamation plan approved by the Minister of Natural Resources for all Crown Land that currently falls within the boundaries of the leased area. All reclamation plans shall be developed to ensure that peatlands that have been used for the extraction of peat are, upon cessation of activities, restored to a natural wetland habitat. An alternate economic use of the land may be considered, provided the basic wetland function of the peatland is preserved.

As part of the approved plan, each lessee shall post with the Minister a reclamation security in a form and amount as defined by regulation. The intent of the reclamation security is to ensure that reclamation is carried out in accordance with approved reclamation plan. In situations where the lessee is unable to meet the reclamation commitment, the reclamation security shall be used by the Minister to complete any unfinished reclamation obligation. It is the intent of the Minister that the amount of security held in the form of cash should not exceed the outstanding reclamation obligation at any point in time.

Regular periodic reviews of approved reclamation plans shall be conducted to ensure that all plans and security conform to the policy. A review may be requested by the Minister or the lessee at any time if there is deemed to be an adequate reason for the request.

## **8.2 Administrative Process**

### 8.2.1 Reclamation Plans

A peat lessee shall have on file with the Department of Natural Resources an approved reclamation plan (Annex 1).

A reclamation plan must include:

- An operational map showing the current situation;
- A reclamation map showing how the site should look after closure; and
- A report describing the proposed reclamation activities, associated costs and any potential environmental impacts of these activities.

Upon completion of the reclamation plan, the site shall be safe for public and for wildlife; vegetated and physically stable; and non-polluting of the ambient air, water and land.

### 8.2.2 Periodic Reviews

The reclamation plan and the costing estimates are reviewed by the peat lessee at the time of renewing the lease and more often if required by the Minister, where, in the opinion of the Minister there may be an increase in the obligations resulting in a shortfall in the established reclamation security fund.

The lessee may forward a request to revise a reclamation plan or reclamation security fund no more than once a year if the revision involves reduced obligations; or at any time, if the revisions involves increased obligations or while a permanent closure is underway.

## **8.3 Reclamation Security**

The costs attributed by the company to each element of the reclamation plan are assessed whether they accurately represent the level of effort required within the limitations of the level of planning and design. At any time, cash security held will only be equivalent to the cost of reclaiming peatland area that is actually disturbed, i.e. area that is in production or that is abandoned but not restored.

When:

- compliance with the approved reclamation plan has not occurred;
- all or part of an extraction site has been permanently closed without obtaining an approval from the Minister;
- all or part of an extraction site has been abandoned; or



- the lessee becomes insolvent, the Minister may take action to realize on the reclamation security or require that all or part of the security be used to reclaim all or part of the extraction site.

At any time during the time a lease is active and before final closure, a lessee may access funds held in security to complete approved reclamation activities. Half of the amount held per hectare is paid upon completing the work. The remaining half is paid after reclamation has been achieved as per approved criteria.

### 8.3.1 Forms of Reclamation Security

The reclamation security shall be in one of several forms prescribed by regulations. For companies that decide to provide deposits of money, the required security may be paid in staged instalments over a portion of the lifetime of the operation as described in 8.4.2 and 8.4.3. Where the security is provided in the form of cash, interest will be paid by the Province. Interest credited to the account will count towards achieving the required security. For any other method of providing security, the full security required shall be provided at once.

### 8.3.2 Release from Obligation

A waiting period of at least five years must follow approved restoration activity before a lessee may be released of his obligations. Before being released from his obligation to reclaim a former peat extraction site, the lessee shall provide to the Minister, the following information in writing:

- an analysis and evaluation by an independent accredited consultant of monitoring data and observations from the reclamation program indicating compliance with requirements established in the approved reclamation plan; and
- a list and assessment of remaining environmental liabilities.

Upon release of obligations, the Minister will return the security held in respect of a peat lease.

## **8.4 Specific Cases**

### 8.4.1. For leases that have permanently ceased operation or that will be closing before December 31, 2005:

- No security will be required;
- A reclamation plan shall be submitted and a schedule of activities presented that will lead to complete site reclamation ten years following permanent closure; and
- The cost of reclamation activities will be estimated as well as the proposed annual expenditures related to these activities. Lessees will be required to provide annual proof that scheduled activities have taken place and that expenses were incurred as planned.

**Government shall provide a grant of \$250 per hectare** of Crown peatland formerly under operation. Half of that amount shall be paid upon completing the reclamation work; the other half being paid after reclamation has been achieved as per approved criteria.

8.4.2. For leases that are currently in operation:

- The security is based on **\$750 per hectare** of disturbed peatland area with Government contributing **a grant of \$250 per hectare**;
- The security is collected over a period equivalent to 75% of the remaining estimated life expectancy of the operation;
- The grant, based on the maximum surface to be disturbed, is paid out annually over the remaining estimated life expectancy of the operation; and
- Security will begin to be collected on January 1st, 2006. Security amounts already held by DNR will be credited to the appropriate peat lease.

8.4.3. For future leases and all current leases that were not in operation as of December 31, 2002:

- The security is based on **\$750 per hectare** of disturbed peatland area. There is no Government contribution;
- Security payments begin five years after peat extraction begins. Security amounts already held by DNR are credited to the appropriate peat lease; and
- The security is collected in equal payments over a 15 years period or over 75% of the estimated life expectancy of the operation, whichever period is the least.

## **9.0 Policy evaluation plan**

Within the framework of any good policy design and implementation plan, a comprehensive evaluation procedure is essential in determining the effectiveness of the implemented policy and in providing the basis for future decision-making. In designing a policy evaluation plan, the Department needs to consider how the policy objectives can be accurately and effectively measured and how the evaluation data collected will be used as a basis for decision-making. The evaluation process consists of looking at the particular policy in practice, both in terms of objectives and means employed.

### ***9.1 Questions to be asked during the evaluation***

1. Has the level of secondary processing of peat increased?
2. Has existing employment level been sustained?
3. Is the production of unprocessed peat from Crown lands leveling off?
4. Is production of peat from freehold land increasing?
5. Are abandoned former commercial extraction areas being restored to wetland / peatland habitat or reclaimed to alternate economic use?
6. Is the security sufficient to guarantee site reclamation in the case of default by the lessee?

## **9.2 Data that will be collected**

- Production and employment statistics for all Crown peat leases and freehold operations.
- Land use patterns on Crown peat leases: peatland under production, abandoned, restored, in natural state.
- Actual costs of restoring former production areas in New Brunswick.

## **9.3 Data collection responsibility**

- The Peat Resources Geologist is responsible for compiling the data.

## **9.4 Collection and storage of the data**

- Semi-annual peat royalty reports submitted by peat lessees are used to compile production and employment statistics. Individual reports are confidential and stored in Bathurst (Minerals and Petroleum Development Branch), in Fredericton (Central records) and at the Department of Finance in Fredericton. Compiled provincial statistics are published twice a year by DNR (March and August) and posted on the Branch's public web site.
- GIS maps of individual peat operations are updated annually during the fall and winter months based on data collected during the summer's field season. Maps and land use statistics are stored in electronic form.

## **9.5 Internal and external consultation**

- Selected DNR agencies, Department of Environment and Local Government
- New Brunswick Peat Producers Association

## **10.0 Policy Authority**

The *Quarriable Substances Act* provides that:

- Section 9 (1) The Minister may grant a peat lease authorizing the taking or removal of peat from Crown Lands.
- Sections 9 (1 and 2) Reclamation plans must be submitted to the Minister for approval.
- Section 9 (3) Reclamation security must be provided to the Minister.

## **11.0 Definitions**

**New entrants:** Individuals or companies not connected with individuals or companies that are currently extracting peat from Crown Lands in New Brunswick.

**Peatland:** An area with or without vegetation with a naturally accumulated peat layer of at least 40 cm at the surface.

**Reclamation:** A series of actions that include, the stabilization of the soil surface, assurance of public safety, aesthetic improvement, and usually a return of the land to what, within the regional context, is considered to be a useful purpose.

**Restoration:** the process of assisting the recovery of an ecosystem that has been degraded, damaged or destroyed.

**Wetland:** Land that has the water table at, near, or above the land's surface, or which is saturated, for a long enough period to promote wetland or aquatic processes as indicated by hydric soils, hydrophytic vegetation, and various kinds of biological activities adapted to the wet environment.

## **12.0 Inquiries**

Inquiries concerning this policy or about peat lease applications should be sent to the

**Director of Minerals and Petroleum Development Branch,**  
Department of Natural Resources,  
P.O. Box 6000, Fredericton (NB),  
E3B 5H1.

Telephone: (506) 453-2206, Fax: (506) 453-3671

## **Annex 1 – Guidelines for a Reclamation Plan**

Reclamation plans for peat extraction operations will consist of the following elements:

### **1. Operational Map**

- A map showing the current land use situation and the projected situation at maximum extent of the operation, including the boundary of the peat lease and the perimeter of the peatland.
- Current drainage ditches, sedimentation ponds, location of infrastructure (roads, buildings, storage areas, electric power transmission lines), natural areas and conservation zones.
- Vegetation borrow areas. In the absence of local sources, identification of sources in the report (i.e. another operation or an adjacent natural peatland).

### **2. Reclamation Map**

A conceptual map showing how the site will look after closure, when site reclamation is completed.

- Projected position of the 50 cm peat depth contour line at the end of operations.
- Forested zones: areas with less than 50 cm of peat may be restored as forest habitat.
- Open water zones: up to 25% of the peatland may be restored as open water area.
- Wetland re-vegetated zones: areas where wetland plants will be reintroduced (e.g. ericaceous shrubs, sphagnum mosses, eriophorum, carex).
- Infrastructure removed, blocked sections of ditch system.

### **3. Reclamation Report**

- Geographic setting including PID number of the property, a regional scale map and an aerial photograph showing the location of the operation and the access route.
- Runoff pattern: current water dispersal pattern compared to the situation after reclamation. How will closing the site and blocking ditches affect the way water is dispersed? Will the proportion of water draining towards the various streams change significantly?
- Life expectancy of the peat extraction operation, a schedule of peatland reclamation activities and the cost breakdown of these activities.
- Description of the methods used to reclaim the former peat extraction site: reforestation, open water creation, re-vegetation, ditch blocking).
- Proposed monitoring program to determine the success of the reclamation program.