

Forestry

Joint Conservation – Land Use Committee meetings have taken place to develop a symposium on forestry practices and forest protected zones using guest knowledge speakers to assist the board in making science based decisions. The topics on Forestry Practices included:

- Clear cutting/cutting methods, strip cutting, select cutting, cutting in buffer zones, cutting practices that result in blow down, etc.
- Herbicide spraying, spraying buffers
- Water course setbacks – topography, soil type, vegetation, water course width (small order streams to lower river), wording for regulations – ie 200 m fits all with application process for reduction
- Forestry practices – water course crossings, ditches, siltation controls
- Policing of practices – penalties for noncompliance
- How to respond to Department of Natural Resources and Energy Development (DNRED) on Protected Zones.

On March 18 Joint Conservation – Land Use Committee attended a presentation at the Maritime Innovation Limited in Sussex, NB. The presentation was hosted by board member Andrew Willet. It covered a wide range of forestry topics, starting with a class room presentation and followed up with a tour of the Innovation Facility.

Presentation and Q & A discussion of forest management topics.

- Harvesting techniques – Clear cutting and Selection cutting – science-based decision making
- Risk mitigation – Guidelines for clear cut area, riparian buffers
- Protecting water – stream crossings, roads, and ditches
- Technology – Precision forestry techniques
- Third Party Certification

Tour of Maritime Innovation Limited

- Overview of forestry and forest products operations
- Advanced tree breeding program
- Spruce budworm resistance

Protected Natural Areas

Protected Natural Areas (PNA's) have been slated for a doubling the amount of conserved land from 4.6% to 10%. To this end MSA has prepared a paper, **Utilizing Hydrological and Geomechanical Processes for Riverscape Conservation for the Miramichi River**, with the help of Antion O'Sullivan, Debbie Norton and Mark Hambrook for submission to NB Natural Resources.

The paper outlines a science based selection process for buffer zone enhancements in the Miramichi Watershed. There are numerous other proponents vying for PNA's. Therefore with limited area that can be protected the paper sets up a priority selection process of buffer zones that will achieve the best outcomes for the goals that MSA is striving for on the Miramichi. These goals are to enhance cold water refuges and siltation loading.

In the paper the MSA recommended the following for a proposed increase in buffer zones in the Miramichi:

- Calculate the amount of Crown Land in the Miramichi Catchment
- Identify river reaches where maximum temperatures range from 19 – 22.5 °C.
 - a. The MSA was given access to a maximum river temperature model developed by A. M. O'Sullivan (pers. comm.)
- Identify areas that may be sensitive to erosion.
 - b. The MSA is recommending a threshold maximum slope to identify slopes that may be sensitive to erosion.
- Extract areas that meet criteria detailed in 2 and 3.
- Establish existing area within the zones identified in 4 using the provincial watercourse buffer zone, to allow maximum amount of area to be protected.
- Apply a homogenous buffer across the areas identified in 4 that utilizes 5.3 % of the total Crown Lands in the Miramichi, as per the provinces extension.

Note: The aim within is to identify areas that provide critical cold water habitat. Buffer zone extensions are then focused around these areas. The buffer zone width is simply decided by the dividing 5.3 % of the Crown Land area within the Miramichi, homogeneously across streams that are predicted to reach a maximum temperature 19 – 22.5 °C. There is no science, globally, that can define the exact buffer zone size that mitigates temperature changes in rivers. This remains an ongoing topic of scientific research, globally.

Base Metal Mining

Base metals mining, notably in the Burnt hill and Porcupine areas, have not moved ahead following press releases by Great Atlantic Resources Corp.