

An Initiative to Enhance Surface Coal Mine Reclamation - Status Report

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On April 27, 2006, the Nova Scotia Minister of Natural Resources announced the Surface Coal Mine Reclamation Enhancement Initiative, through which a scientific research program would investigate how surface coal mine reclamation projects could be developed to support land-use strategies in Nova Scotia communities. The Minister noted that qualified individuals would be invited to sit on a committee representing industry, academia, government, research organizations and public interest groups. The committee's mandate included site selections for the study, a review of scientific literature, ecological studies, recommendations for test vegetation plots, planting and monitoring of test plots, public consultation and an action plan for re-integrating mine sites into the local environment.

Over the past three years, work has been accomplished through a collaborative effort of a number of organizations and interested residents. In 2006-07 preliminary site assessments were made on nine former surface mine sites and the committee established parameters for research required to evaluate past reclamation efforts in Cape Breton County. In 2007-08, comprehensive vegetation surveys began and test plots were established to evaluate the ecological response to a variety of vegetation amendments. In 2008-09, an innovative trail using "buckwheat" as a green-manure to increase organic matter was initiated and soil amendments were applied to accelerate naturally regenerated growth on a previously reclaimed mine site.

To date, the committee has come to the conclusion that previously mined lands will eventually return to an Acadian Forest ecology. The question of how long it will take for various sites to return to a mature or climax forest condition is not certain and will require additional surveys at sites reclaimed several decades ago to help improve predictions.

The committee has also found that other jurisdictions in North America have recently gone through a similar evaluation of surface coal mine reclamation methods and the resulting vegetation and ecology. The results of studies in other jurisdictions indicate that the common restoration objective of developing a stable, non-eroding grassland cover may, in fact, delay the subsequent succession of trees and other local plant species.

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