

# Forest Co-op Prescribed Burn Project

Impact of Prescribed Burning on Growth and Dynamics of Forest Stands



# Project Overview

- This two year project will investigate the impact of prescribed burns on forest growth and yield, site productivity and early floristics.
- A series of 'matched' plots will be established in 14 to 35 year old plantations on sites with broadly contrasting disturbance histories: wildfire, prescribed burn, and mechanical site preparation.
- Plot matching will be on the basis of disturbance history, species planted, stock type, soil group, management intensity, stand age, and ecoregion.

# Project Overview

- Old prescribed burn plans and post burn reports will be collected from across the boreal region and spatially mapped.
- The FEC and Growth and Yield sampling methodologies will be utilized to ensure consistency with existing datasets, and to facilitate the longer term maintenance of the plot network

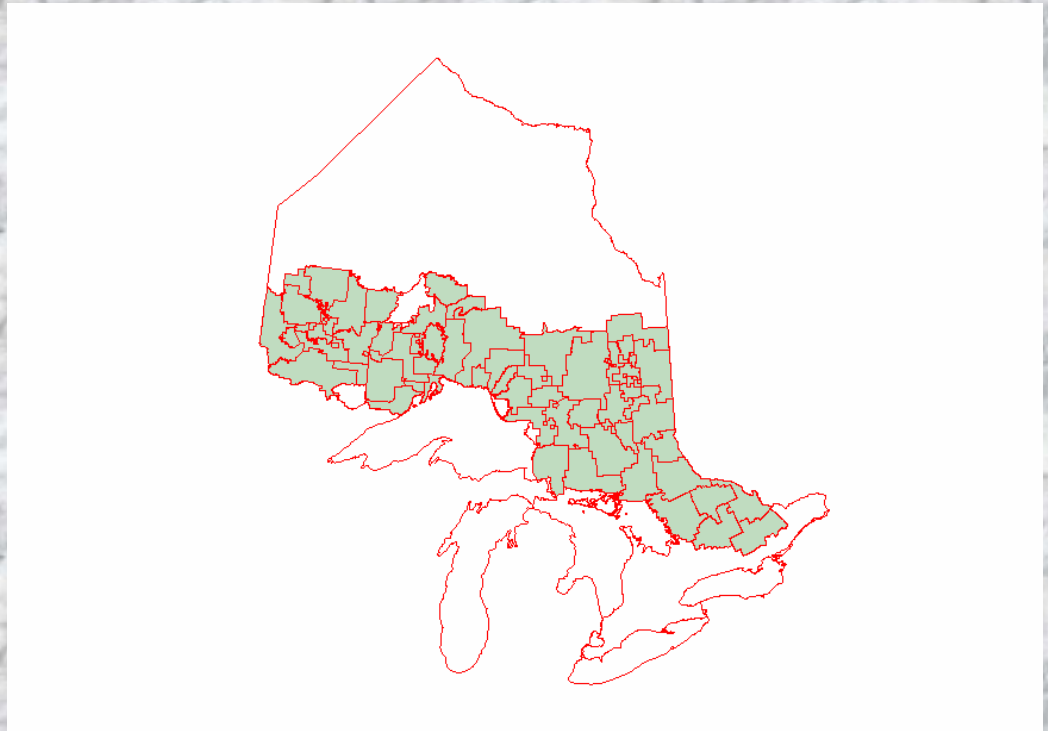
# Team Members

- Mark Roddick, MNR-NWSI – *project lead*
- John Parton , MNR - SIB *project lead*
- Al O'Connor, MNR – FIRE
- Peter Uhlig, MNR-OFRI
- Dave Morris, MNR- CNFER
- Ken Lennon - Neenah Paper Inc.
- Dave Archibald- Confederation College
- Dianne Miller – Forest Co-op



# Scope

**The scope of the project is  
Prescribed Burns with  
standard silviculture found  
within the boreal forest**



# Project Design

**The boreal forest will be split into 4 spatially distributed sampling blocks to help explain any geo-climatic variability**

**Within each Block, 3 site types will have 3 treatment types sampled across an age stratum**

**This sample will be replicated 5 times within each block, where samples permit**

**Comparison of the Growth and Yield found between plantations on which did not receive a PB with those that have, to determine if there is an enhanced growth response**



# Project Design

**The stratification will be comparing wildfire, to PB's to a recommended basic silvicultural treatment for that forest unit/site.**

**Sites will be of the same age or age group and be paired to make direct correlation easier**

**Only 3-4 forest units will be compared in this study to make it operationally feasible**

**Effort will be made to ensure soil type, stock types, planting methods and other productivity related variables are consistent across sample.**

**Ordination of the floristic data with the current FEC data set to compare the species compositions to those found in existing Ecosite's**

**The data for the sample plots will be entered into the growth and yield and FEC databases.**



# Implementation Schedule

## Year one (2006-2007)

- Data Mining for historic data
- Development of spatially explicit data base structure
- Field location and validation
- Initial plot measurements
- Initial report and data review

## Year 2 (2007-2008)

- Review of methodology and sampling procedures
- Finalization of field sampling
- Collation of results
- Final reports

# Deliverables

- **Annual interim reports will be produced detailing production and objectives met or exceeded.**
- **A full technical report on the findings will be produced by the team with the option of a peer reviewed journal.**
- **The interim and final reports will be presented at the Forest Co-op Growth and Yield Business Unit spring and fall meetings.**
- **Individual plot fact sheets and overview fact sheets will be presented to all of the forest industry the annual growth and Yield business unit meeting.**
- **The information will be used to develop the outline and materials for workshops from the Forest management competency group, Forest Standards and Evaluation Section in module # 3, Silvicultural Operations.**
- **A fact sheet will be produces to guide yield curve development/adjustment within the forest management planning process to account for any yield response from this silvicultural treatment. This fact sheet will be presented to Forest Management Branch to be incorporated into the forest management planning training system**

# Partners/ Collaborators

Forest Ecosystem Science Co-operative Inc. (Forest Co-op)

Forest Co-op Partners participating in this project include the following:

Abitibi-Consolidated Company of Canada

Bowater Canadian Forest Products Inc.

Confederation College

Domtar Inc.

Neenah Paper Company of Canada

Ontario Ministry of Natural Resources

- Northeast & Northwest Science and Information
- Northwest ,Northeast, Provincial (branch) Fire Program
- CNFER

Tembec Industries Inc. & Forestry Research Partnership

Weyerhaeuser Company Limited

The End

