# Impact of Prescribed Burning on Growth and Dynamics of Forest Stands

***A Forest Ecosystem Science Co-operative EFPS Project***

***1st Year summary***

Mark Roddick

# 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.**

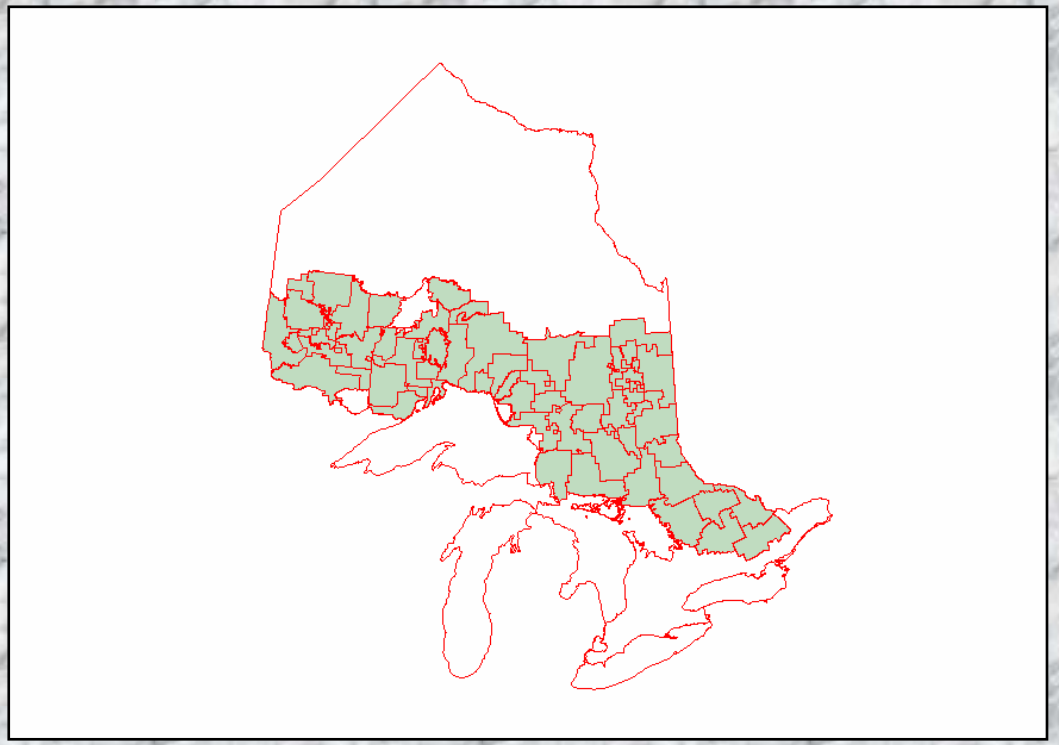
- **The FEC and Growth and Yield sampling methodologies will be utilized to ensure consistency with existing datasets, and to facilitate the longer term maintenance of the plot network**

# Team Members

- **Mark Roddick, MNR-NWSI –** ***project lead***
- **John Parton , MNR - SIB** ***project lead***
- **Al O'Conner, MNR – FIRE**
- **Peter Uhlig, MNR-OFRI**
- **Dave Morris, MNR- CNFER**
- **Dave Archibald- Confederation College**
- **Dianne Miller – Forest Co-op**
- **Mike Carneiro- OMNR**

# Scope

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



# 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**

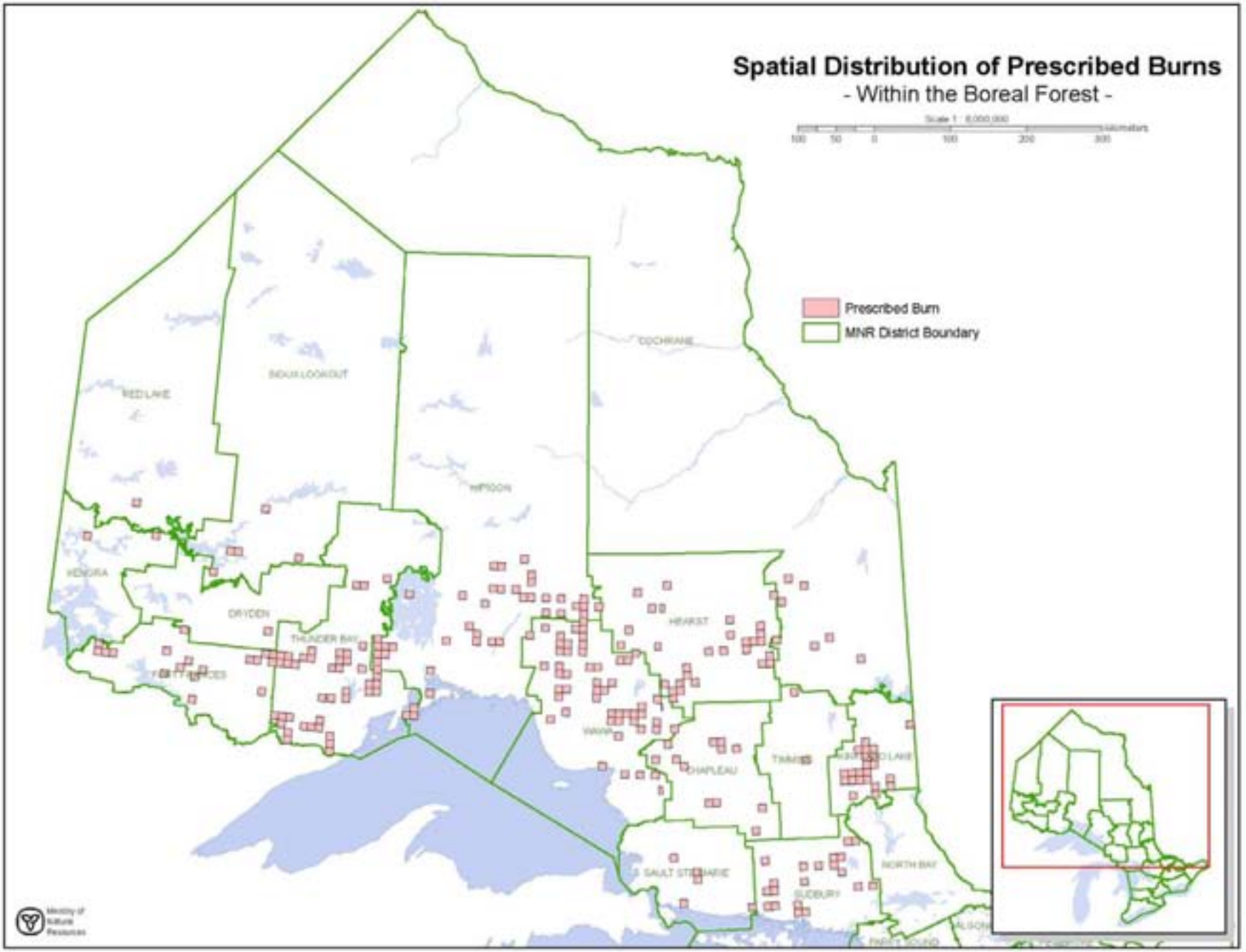
**Year 2 (2007-2008)**

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

# Progress to Date

## Year one (2006-2007)

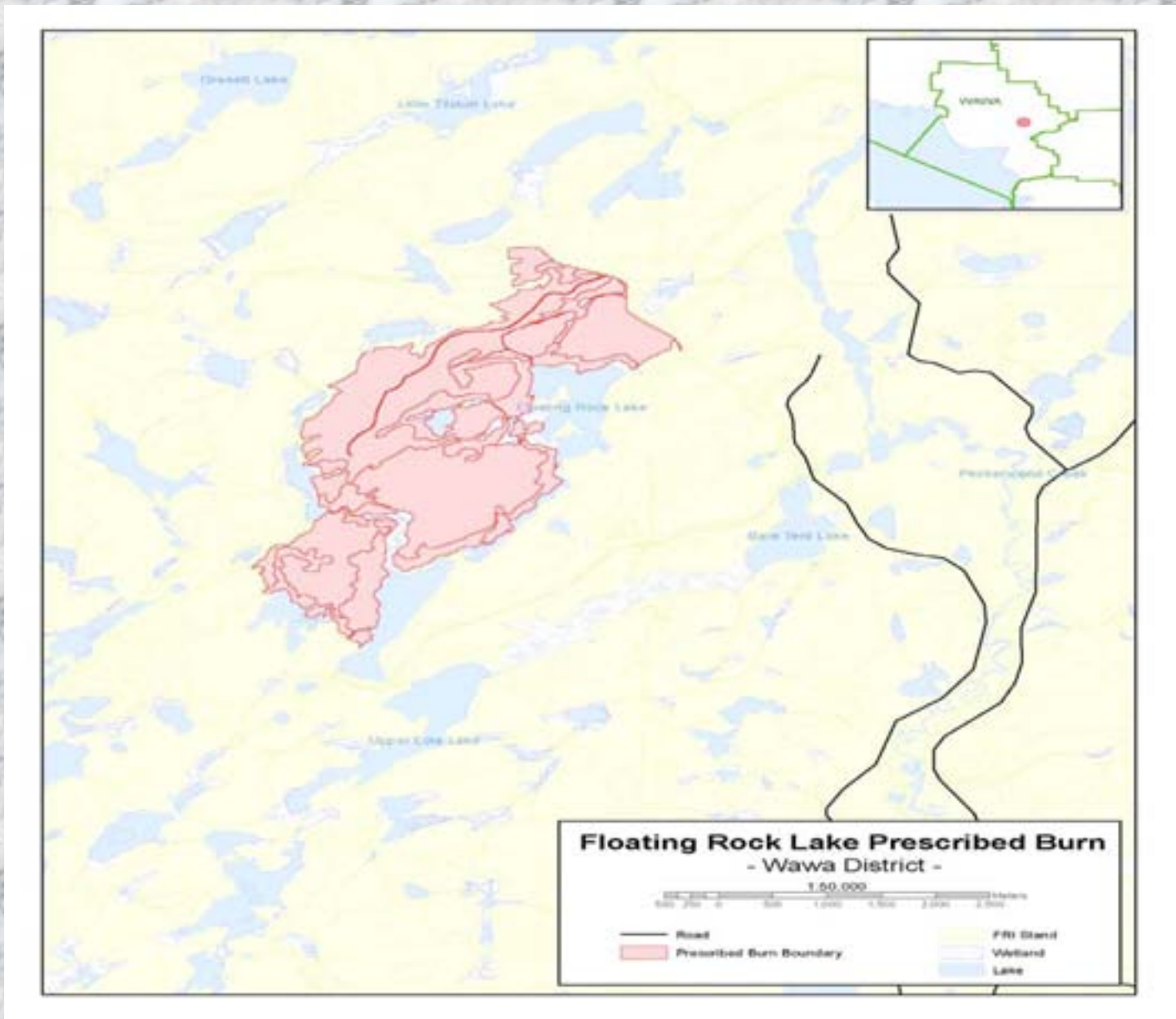
- All Pb's on record have been catalogued (382) from both regions
- 192 Pb's have been recon'd 89 potential burns have been identified
- Field work established on 129 Pb's, ground plots, 105 in non burned areas
- OMNR Fire Program has overachieved on all in-kind contributions and collaboration
- Ongoing historic record management and data base development
- All burns are captured on a unique spatial layer with associated FRI data
- Scans of old records are under way


Spatial Distribution of Prescribed Burns
- Within the Boreal Forest -
Prescribed Burn
MNR District Boundary
COCHRANE
RED LAKE
SIOUX LOOKOUT
KENORA
DRYDEN
THUNDER BAY
HEARST
CHAPLEAU
TIMMINS
KIRKLAND LAKE
SAULT STE MARIE
SUDBURY
NORTH BAY

# Northwest Region Prescribed Burn Distribution


PRESCRIBED BURNS WITHIN THE BOREAL FOREST
NORTHWEST REGION

# Floating Rock Lake PB , Stand level Map



# 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.**
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- **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. (2nd year)**
- **The information can 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 produced 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

Forestry Futures Trust
– Enhanced Forest Productivity Science Program –

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
- North West ,Northeast, Provincial (branch) Fire Program
- CNFER
Tembec Industries Inc. & Forestry Research Partnership
Weyerhaeuser

# The End (or the beginning)