

# CANADIAN BOREAL COMMUNITY FIRESMART PROJECT

## **Draft** 2012 OPERATIONS PLAN



**Prepared in Consultation With:**

**ENR South Slave Region  
Fort Providence Resource Management Board  
FP Innovations  
ENR FMB Science Section**



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*Cover Photo Credit Larry Nixon*

# TABLE OF CONTENTS

GENERAL PROVISIONS .....	5
DESCRIPTION OF THE PROJECT SITE .....	6
LOCATION .....	6
Values At Risk Analysis .....	8
Northwestel Microwave Site.....	8
Caen Lake Fire Tower .....	8
PROJECT MANAGEMENT .....	10
Contacts .....	10
Duties And Responsibilities .....	10
COLLABORATIVE AGREEMENTS.....	11
PROJECT COMMUNICATIONS PLAN.....	12
Objective .....	12
Community Consultation.....	12
Daily Reports.....	12
Briefings .....	12
SITE DEVELOPMENT / USE .....	14
Land Use Permit .....	14
Petroleum Product Management .....	14
Excavations.....	14
Watercourse Crossings.....	14
Clearing Of Lines, Trails, Or Right-Of-Way .....	15
Monuments .....	15
Historical & Archaeological Sites And Burial Grounds.....	15
Camp/Staging Areas.....	15
Garbage .....	15
Sewage (Sanitary and Gray Water) .....	15
Mechanized Equipment .....	16
End of season site clean up.....	16
Fuel Spill Containment & Clean Up Contingency Plan.....	17
BURN OPERATIONS .....	18
Objective .....	18
Briefings .....	18
Fire Weather Station .....	19
Fireguards & Fuelbreaks.....	19
Water Supply System .....	19
Air Tanker Support.....	19
Notice to Airmen (NOTAM) .....	19
Burn Operations Incident Command System .....	20
Escapes .....	21
SAFETY PLAN .....	22
Objective .....	22
Safety Officer .....	22
Briefings .....	22
Personal Protective Equipment.....	22
Aircraft Safety Briefing .....	22
Safety Audits.....	22
Safety Issues.....	22
MEDICAL PLAN .....	23
Incident & Accident Reports.....	23
ON SITE COMMUNICATIONS PLAN .....	24

Appendix A - 2012 PROJECT WORKPLANS .....	25
Mooney - Project 1 .....	26
Title: Fire Behaviour in Simulated Mountain Pine Beetle Attacked Jack Pine .....	26
Mooney - Project 2 .....	26
Title: Effectiveness of Stand Thinning/Stand Cleaning as a Fuel Treatment in Jack Pine ..	26
Baxter - Project 1 .....	28
Title: Fire Behaviour in 'Stand Cleaned' Pine stands .....	28
Baxter - Project 2 .....	28
Title: Survival Zones .....	28
Baxter - Project 3 .....	29
Title: Fire Behaviour in 'Under-burned' Pine stands .....	29
Ault - Project 1 (tentative due to rotary wing costs) .....	29
Title: Documentation of changes in fire behaviour from helicopter gel drops .....	29
Campbell - Project 2 .....	30
Title: Testing of prototype ATV terra torch system using inline flash 21 mixing .....	30
Campbell - Project 1 .....	30
Title: Ignition Device Evaluation .....	30
Campbell - Project 2 (tentative and dependent on prototype delivery).....	31
Title: Wildland Fire Sprinkler Design .....	31
Campbell - Project 4 .....	31
Title: Structure Protection (to be revised).....	31
Campbell - Project 2 .....	32
Title: Testing of prototype ATV terra torch system using inline flash 21 mixing .....	32
Hvenegaard - Project 1 .....	32
Title: Ignition Probability in Mulched Fuel Beds .....	32
Hvenegaard - Project 2 .....	33
Title: Effectiveness of Mulching as a Fuel Treatment in Jack Pine.....	33
Hvenegaard - Project 3 .....	33
Title: Fire Behaviour in a Mulched Fuel Bed .....	33
Appendix B - Annual target dates .....	34
Appendix C - Typical daily schedule .....	36
Appendix D - Resource requirements for research burns .....	37
FIRE EQUIPMENT.....	37
OFFICE & COMMUNICATIONS EQUIPMENT .....	37
TRANSPORTATION.....	37
AIRCRAFT .....	38
WILDLIFE SHACK .....	38
HUMAN RESOURCES .....	38
PHONE NUMBERS .....	39

## Maps/Figures

MAP 1 PROJECT SITE .....	6
MAP 2 CBCFS (Block 1&2) Plot Layout.....	7
MAP 3 VAR Overview .....	9
Project Organization Chart .....	10
Table 1 Summary of the Type, Number, Size, and Purpose of Mechanized Equipment.....	16
Burn Operations Organization Chart .....	20
Count Down Procedures .....	21
Radio Frequencies .....	24
Phone Numbers.....	24

## **GENERAL PROVISIONS**

### **TITLE**

This plan is entitled *Canadian Boreal Community FireSmart Project: 2012 Operations Plan* is hereafter referred to as the "Operations Plan".

### **REFERENCE TO OTHER PLANS**

The Canadian Boreal Community FireSmart Project 5-Year Plan, hereafter referred to as the "5-Year Plan", sets out the overall objectives, methodologies and expected results of the Canadian Boreal Community FireSmart Project. The Canadian Boreal Community FireSmart Project will hereafter be referred to as the "Project".

The Operations Plan is a component of the 5-Year Plan for the Project.

### **LAND USE PERMIT (MV20092X0005)**

The activities outlined in the 5-Year Plan for the Project will be conducted under the terms and conditions of the two year extension of Land Use Permit # MV20092X0005 issued by the Mackenzie Valley Land and Water Board.

Issue date: March 12 2009

Expiry date: April 29 2014

### **PERMIT TO BURN**

The Project Manager will obtain a *Permit to Burn* from the ENR South Slave Region Manager of Forests prior to conducting the experimental prescribed burns or disposing of slash resulting from cutting fireguards or any other purpose.

### **MANUALS & OPERATING PROCEDURES**

The overall management of the Project will be done in compliance with the operations manuals and procedures established by the Forest Management Division, specifically,

- 2012 Air Crew Briefing Manual
- Forest Management Division Fire Operations Manual
- 2009 GNWT Ignition SOP

## DESCRIPTION OF THE PROJECT SITE

### LOCATION

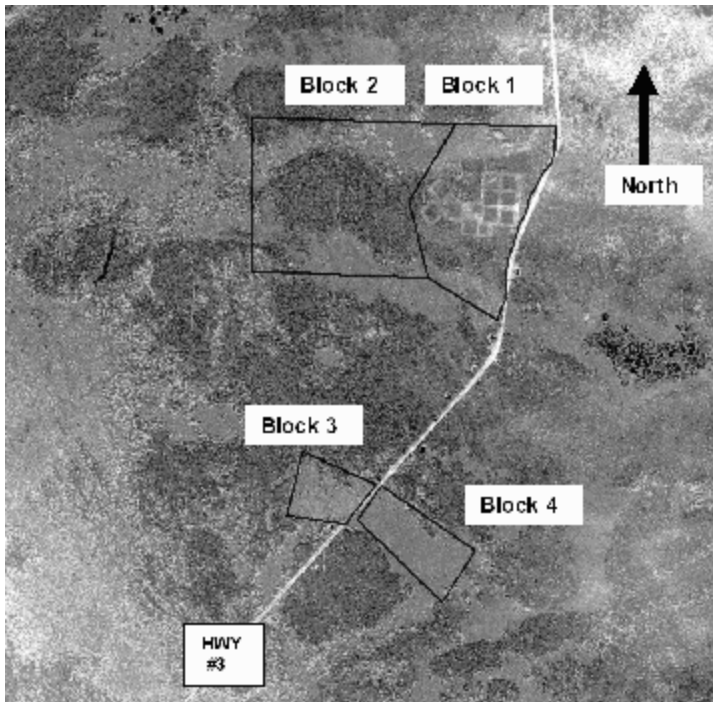
The Project site is located west off highway #3 (kilometre 70.6) approximately 40 kilometres north east of Fort Providence.

The Project site is located entirely on National Topographic map sheet 85-F-11.

The Project consists of 4 blocks. Activities planned for 2012 will take place primarily on Blocks 1 and 2 with a small sampling exercise on plot 3 & 4. The maximum and minimum latitudes and longitudes are as follows:

Blocks 1 and 2 (combined unit)		Block 3		Block 4	
Minimum latitude 61° 34' 14"	Maximum latitude 61° 35' 30"	Minimum latitude 61° 32' 53"	Maximum latitude 61° 33' 21"	Minimum latitude 61° 32' 24"	Maximum latitude 61° 35' 09"
Minimum longitude 117° 08' 23"	Maximum longitude 117° 12' 31"	Minimum longitude 117° 10' 40"	Maximum longitude 117° 11' 52"	Minimum longitude 117° 09' 18"	Maximum longitude 117° 10' 55"

**REPLACE WITH 2011 AIR PHOTOS ONCE AVAILABLE (April 2012 +/-)**



### MAP 1 PROJECT SITE

IKONOS Satellite Image July 22, 2001

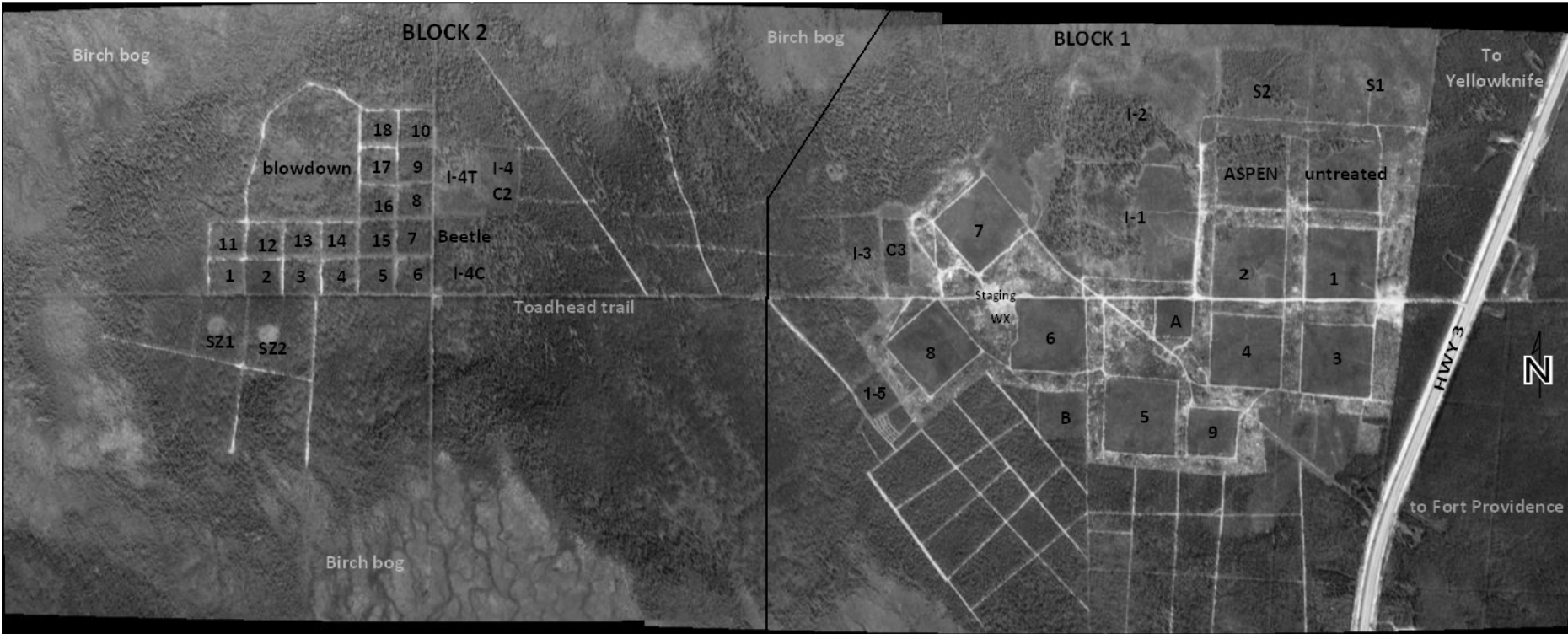
Map 1 shows the location of:

- Block 1 (Old ICFME site)
- Block 2 (FireSmart plots)
- Block 3 (shrub fuel type)
- Block 4 (shrub fuel type).

The bog birch in Block 2 will serve as a fuelbreak on the north, west, and south sides of the pine forest. The "developed" area in Block 1 (regenerating fireguards and burned plots) will be used as a fuelbreak on the west side of Block 2.

**MAP 2 CBCFS (Block 1&2) Plot Layout**

(draft map – Final version should be ready by early April)



## **Values At Risk Analysis**

**As of 06/11**

The Forest Management Division maintains a values-at-risk database, which is used in fire management operations to spatially display the location of potential values-at-risk relative to forest fire occurrences. In operation, when a fire is reported, all values-at-risk within a radius of 20 kilometres are identified and displayed. The same methodology was followed to produce the risk analysis map shown on the next page. Eleven (11) values-at-risk were identified.

Two of note are:

### **Northwestel Microwave Site**

The microwave site is located 20 kilometres northeast of the Project site on the west side of Hwy #3. It consists of a large steel tower and small building located in the center of a clearing, which has minimal flammable vegetation to carry fire. The facility is accessible by vehicle off highway #3.

### **Caen Lake Fire Tower**

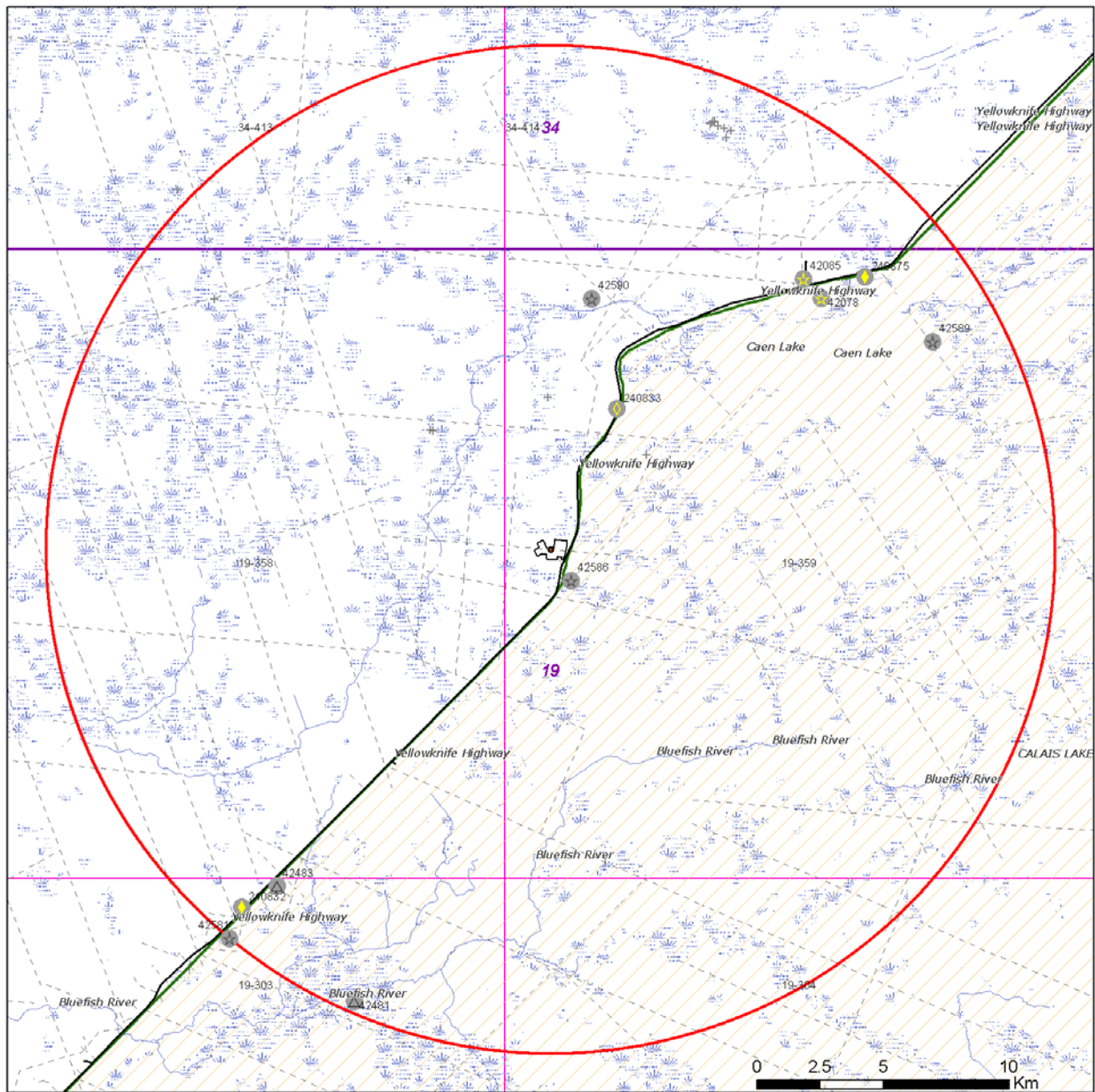
The fire tower is located 20 kilometres northeast of the Project site on the east side of Hwy #3. It has a 30m steel tower, wooden cabin and small wooden out buildings located in the centre of a large clearing. As of 2011 the clearing has minimal flammable vegetation to carry fire, although the site is inactive and this may change over time.

The access road was deactivated in 2011 and the facility is **not** accessible by vehicle off highway #3.



# Providence VAR Overview 2011

1:160,000



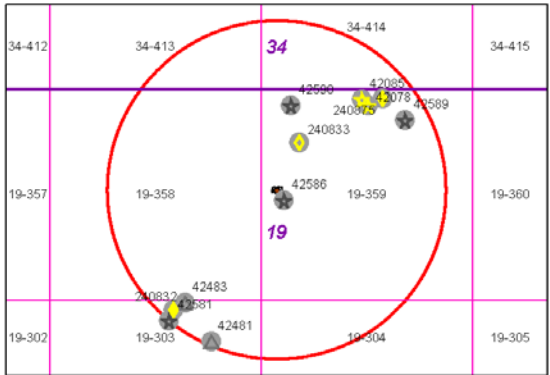
### Legend

#### var\_legend

- △ Natural Resource
- Cultural Resource
- Non-Private Habitable Structure
- ◇ Private Habitable Structure
- ☆ Infrastructure
- ▲ Solid = Occupied
- △ Hollow = Not Occupied
- Yellow = Verified
- Black = Not Verified
- Red = Hazardous
- Prov\_20km\_buffer
- providence\_CFTE\_site
- Community
- Rocks & Hazards
- Placenames
- Roads
- Cutlines
- Railway
- Contours (x50m)
- Rivers & Streams
- Wildlife/Migratory Bird Sanctuary
- National/Territorial Parks
- Special Agreement Area
- Sand
- Wetlands
- Lakes
- 100km\_grid
- 25km\_grid

Created By: Vera Green  
 Created On: May 31, 2011  
 Requested By: Larry Nixon

VAR_TITLE
[42078] Caen Lake ENR Fire Lookout Tower & Fuel Cache
[42085] Caen Lake/Dixon Microwave tower on Highway #3
[42481] MOOSE PRAIRIE
[42483] Bluefish Prairie
[42581] IOE Providence A-47
[42586] IOE Providence K-45
[42589] GDP Noel Mills Lake B-41
[42590] GDP Noel Mills Lake L-41
[240832] Unknown Owner Cabin on Highway #3
[240833] Unknown Owner Cabin Ruins on Highway #3
[240875] Unknown Owner Cabin on Highway #3



**MAP 3 VAR Overview**

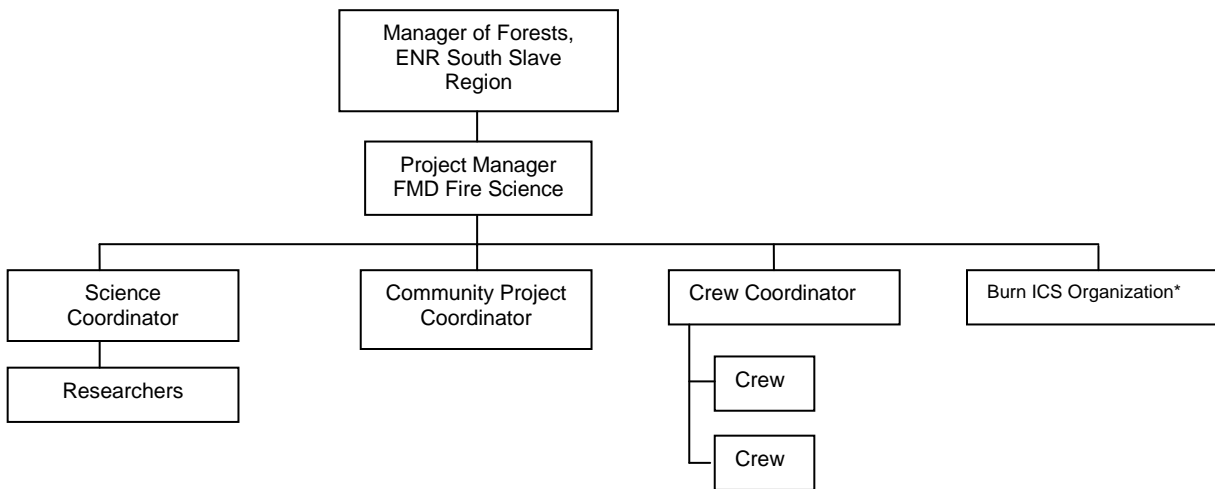
## PROJECT MANAGEMENT

The South Slave Region will manage the overall project within the context of regional fire management operations. The Project Manager will manage the day-to-day operations, in collaboration with South Slave Region, the Fort Providence Resource Management Board and FP Innovations (or any other researchers onsite). The Project Manager will be provided by FMD Fire Science.

### Contacts

TITLE	NAME	PHONE
Manager of Forests, ENR South Slave Region	Rick Olsen,	867-872-6425
Project Manager, Forest Management Division	Larry Nixon,	867-872-7700
Fort Providence Resource Management Board	Priscilla A. Canadien,	867- 699-7009
FP Innovations	Ray Ault,	780-817-1840

### Project Organization Chart



\* see pg 19

### Duties And Responsibilities

The duties and responsibilities given below apply to the positions identified in the Project organization chart. These positions are specific to the Project and may not correspond to positions found within the organization of the Forest Management Division or the South Slave Region.

#### **Manager of Forests, South Slave Region**

The Manager of Forests, South Slave Region, (or Designate) is responsible for the overall management of the Project and coordinates the operational requirements of the Project with other Regional activities by:

- Assigning and scheduling crews to carry out work assignments
- Acquiring aircraft and other resources
- Providing support services from the Fort Providence Base
- Operating a fire management organization responsive to planned experimental prescribed burns or slash burning

### **Project Manager** (assigned by FMB Fire Sciences)

The Project Manager is responsible for the operational management of the Project and the coordination of scientific studies with other activities including school projects, Elders' projects and training by:

- Developing and maintaining the Project site in accordance with the terms and conditions of the Land Use Permit
- Preparing and implementing the Operations Plan
- Preparing and delivering reports and oral briefings
- Providing logistical support to the scientific studies, school projects, and Elders' projects
- Preparing daily work plans for fireguard construction, slash burning, experimental prescribed burns, and other activities.

### **Crew Coordinator** (assigned by South Slave Manager of Forests)

The Crew Coordinator is responsible for the supervision of one or more crews assigned to carry out daily work assignments given by the Project Manager, such as:

- Installing water delivery system
- Constructing fireguards
- Piling and burning slash
- Extinguishing fires resulting from slash burning or experimental prescribed burning.

### **Community Projects Coordinator** (assigned by Project manager)

The Community Projects Coordinator is responsible for coordinating the projects planned by the Deh Gah School and the Traditional Knowledge team and assisting the Science Coordinator with data collection and other activities. A person will be assigned from the Fort Providence Base by the South Slave Manager of Forests to act in this capacity as and when required.

### **Science Coordinator** (assigned by Project manager)

The Science Coordinator manages the scientific studies to ensure that the objectives of the experimental burns are met while at the same time providing opportunity for concurrent, non-conflicting research by:

- Coordinating proposals developed by third party "agencies" with planned experimental prescribed burns
- Co-developing daily work plans with the Project Manager
- Reporting information about the experimental prescribed burns to the website
- Delivering fuel inventory and fire hazard assessment training to the Forest Management Division (see Training Plan)

### **Burn Operations**

When conducting burn operations, the Project Manager will set up a separate Burn ICS Organisation. (See section titled *Burn Plan*)

### **COLLABORATIVE AGREEMENTS**

A collaborative agreement will be negotiated between the Director, FMD and the Fort Providence Resource Management Board. The Director of FMD will provide a training opportunity for two young adults at the Project site under the CRA with FPIInnovations to accomplish the objectives of this agreement.

## **PROJECT COMMUNICATIONS PLAN**

### **Objective**

The objective of the communications plan is to ensure that information about the Project is communicated to the appropriate people, in an acceptable format, in a timely manner by the most effective means commencing (usually) the second week of June to the end of the field season.

### **Community Consultation**

Community consultation will be coordinated through the Renewable Resources Officer posted at Fort Providence.

The community will be kept informed about the daily activities of the Project by including the Fort Providence Resource Management Board and the Hamlet of Fort Providence on the list of recipients of the Daily Report.

### **Daily Reports**

The Project Manager (or delegate) will prepare and send a Daily Report either electronically or by facsimile to Duty Officers and principal collaborators before 10:00.

Territorial Duty Officer	(867) 872-2077
Duty Officer, South Slave Region	(867) 872-4250
Duty Officer, Hay River	(867) 874-3749
Duty Officer, Fort Providence	(867) 699-3031
Hamlet of Fort Providence	(867) 699-3210
Fort Providence Resource Management Board	(867) 699-3133

The Daily Report will include, but not be limited to, the following topics:

- Cover page with table of contents
- Distribution list (fax):
- On -Site contact info (names, radio, sat phone etc)
- Summary of activities for previous day
- Weather observations and FWI System values from the on-site weather station from previous day
- Forecasted weather for today
- Planned Activities/Requirements for today
  - Option 1
  - Option 2
  - Resource requirements
- Proposed activities/requirements for Tomorrow
  - General description
  - Resource requirements
- General comments
- Attachments (burn plans, spot forecasts etc)

### **Briefings**

Oral briefings will be prepared and delivered to convey specific information about planned activities to selected audiences.

**Internet**

Info will be posted to NWTFIRE.COM

**Highway Signs**

Highway signs will not be required.

**Media**

The Project Manager will brief the ENR Manager of Public Affairs and Communications on the Project by May 5 each year and as required afterwards.

An ENR communication officer will notify the media about the Project prior to June 14. Media will be invited to visit the site, however all arrangements must go through the ENR Manager of Public Affairs and Communications office

## **SITE DEVELOPMENT / USE**

The site will see three main areas of activity: Development, Research & Burn operations

These activities may take place separately or concurrently with each other. Any activities must be authorised by the Project Manager and the South Slave Manager of Forests.

The items in this section pertain to any activities conducted on the site. For specifics related to burns, see section titled *BURN PLAN*

### **Land Use Permit**

All activities will be conducted under the terms and conditions of the two year extension of Land Use Permit # MV20092X0005 issued by the Mackenzie Valley Land and Water Board. The Project Manager will brief all personnel involved in the terms and conditions contained in the Land Use Permit prior to their first work assignment.

The Project Manager will carry and post at the site at all times during the land use operation, a copy of the Land Use Permit.

### **Petroleum Product Management**

The caching of petroleum products on the Project site will be restricted to gasoline for a generator, mixed gasoline for the fire pumps, saws, and mixed diesel for the handheld drip torches (less than 410 L total).

The caching of petroleum products on the Project site for the purpose given above will be restricted to the period of operation, between June 18 and August 31. Otherwise, all petroleum products will be removed from the site.

Also see section titled: *FUEL SPILL CONTAINMENT & CLEAN UP CONTINGENCY PLAN*

### **Small Fuel Cache**

If a small fuel cache is required (410 – 4000 L), the Project Manager shall provide, within 30 days after its establishment, written notice to the Mackenzie Valley Land and Water Board the location, amount and type of fuel, the size of the containers used, and the method of storage and the proposed date of removal of the cache.

### **Methods of Fuel Transfer**

Fire pumps will be “re-fuelled” by hooking up a fuel line from the fuel tank (20-L container) to the pump using a quick connect fitting or fuel supply adapter. In essence, there is no actual transfer of fuel.

Chainsaws, brushsaws, and the generator will be re-fuelled by pouring fuel from a small nozzle-equipped container into the fuel tank.

### **Excavations**

There will be no excavations on the Project site.

### **Watercourse Crossings**

There will be no watercourse crossings on the Project site.

### **Clearing Of Lines, Trails, Or Right-Of-Way**

No roads will be constructed on the Project site. Existing cut lines will be used to access the experimental prescribed burn plots. A cut line, which transverses Blocks 1 and 2 (see Map 2), will be used to access the plots in these two blocks. The cut line provides adequate access without grading provided that vehicle traffic is restricted following rainfall events.

The hand-constructed fireguards will be used to access the burn plots within each of the blocks.

### **Monuments**

The Project Manager shall report immediately to the Surveyor General (Yellowknife 867-766-8520) in the case where a boundary monument is damaged, destroyed, moved or altered.

The Project Manager shall report immediately to the Dominion Geodesist in the case where a topographic or geodetic monument is damaged, destroyed or altered.

### **Historical & Archaeological Sites And Burial Grounds**

The Prince of Wales Northern Heritage Centre searched the NWT Archaeological Sites Data Base and reported (December 12, 2001) that there were no archaeological sites within the boundaries of Blocks 1, 2, 3, or 4 of the Project.

The Project Manager shall immediately suspend operations and report to the Mackenzie Valley Land and Water Board ((867) 669-0506) in the event a suspected historical or archaeological site or burial ground is discovered.

### **Camp/Staging Areas**

There will be no camp established on the project site. Commercial accommodation in Fort Providence will be used instead.

A main staging area will be located in Block 1` near Plot 7 (see *Map 4 CBCFS (Block 1&2) Plot Layout*).

Temporary staging areas may be established for operational needs by the Project Manager.

### **Garbage**

Garbage resulting from use of the day camp area or any other activity will be removed daily and will be deposited in the landfill site in Fort Providence.

### **Sewage (Sanitary and Gray Water)**

Portable lavatories (out houses) will be established on the Project site. The waste pits will be buried at the conclusion of each field season.

Wash water, resulting from clean up before lunch at the day camp area, will be poured into a pit and covered with earth.

## Mechanized Equipment

The following is a listing of the number and type of equipment approved for the development of the Project site as per the Land Use Permit.

<b>Table 1 Summary of the Type, Number, Size, and Purpose of Mechanized Equipment</b>			
<b>Type &amp; Number</b>		<b>Size</b>	<b>Proposed Use</b>
<b>5</b>	Chainsaws	Various	Cutting trees on the fireguards in Block 2.
<b>5</b>	Brushsaws	Various	Cutting brush on the fireguards in Blocks 3 & 4
<b>6</b>	Fire Pumps	Mark 3 (or similar)	Controlling and suppressing fire following the burning of a plot.
<b>1-2</b>	Generator	Honda-type 50 kg	Operating and re-charging electronic devices
<b>1</b>	Mulcher	<200hp	Redistribute vegetation debris, grind down stumps that reduce access and pose safety threats, improve access, create opportunities to investigate fire behaviour in mulched fuel.
<b>1</b>	Crawler Tractor	D-6H 20 tonnes	Grading hand-constructed fireguards in Plot 2 to facilitate the installation of the house-shells. Improving access and egress along selected areas of the cut line that transverses Block 1 & 2 including a designated parking area. Winter time plot preparation.
<b>1</b>	Front-end Loader with forks	Case 10 tonnes	Removing "green" firewood from the hand-constructed fireguards in Block 2. Assist with construction of survival zones and access to water sources for fire suppression purposes
<b>1</b>	Trailer-mounted Terratorch	Buckmaster Mark III (or similar)	Igniting experimental prescribed burn plots.
<b>2-4</b>	All Terrain Vehicles	Various	Pulling the terratorch unit Assisting fire crews with set up and delivery of suppression services
<b>6</b>	Crewcabs	2.8 tonnes	Transporting forestry work crews and researchers.
<b>1</b>	Mobile bandsaw	500 kg	Potential for on-site training to process wood removed from fuel management plots

## End of season site clean up

At the end of the season's activities all research equipment will be removed by researchers prior to leaving. The crews from Fort Providence will make a final inspection and remove all garbage, remaining equipment and ensure the site is in good order.

ENR equipment return will be coordinated by the South Slave Manager of Forests.



## **Fuel Spill Containment & Clean Up Contingency Plan**

### **Objective**

The objective of the plan is to manage a fuel spill under the worst-case scenario.

### **Worst Case Scenario**

The worst-case scenario is containing, cleaning up, and disposing a fuel spill of 205 litres.

### **Training**

All personnel who will be handling petroleum products will be trained how to report a spill incidence and how to contain and clean up the spill and how to dispose any contaminated materials (see Training Plan).

### **Reporting Procedures**

All spills will be reported immediately to the Project Manager (or delegate) by radio or in person. The Project Manager (or delegate) will immediately report the spill incident to the 24-hour Spill Report Line:

**SPILL REPORTING:  
(867) 920-8120**

The Project Manager will also report the spill incident immediately to the ENR Renewable Resource Officer based in Fort Providence, in accordance with Standard Operating Procedures.

### **Spill Containment Kit**

A spill containment kit consisting of absorbent materials, shovels, and a temporary storage drum will be maintained on the Project site.

### **Containment**

Containment will consist of mopping up all liquids using absorbent material.

### **Clean-up**

Contaminated soil will be dug up using shovels and placed in a drum for disposal.

### **Disposal**

Disposal of absorbent material used to mop up liquids and any contaminated soil will be transported to the ENR base station in Fort Providence and temporarily stored there for ultimate disposal in a landfill that allows such disposal.

## **BURN OPERATIONS**

### **Objective**

The objective is to conduct all burns under a command system that has in place procedures that minimize safety risks and escaped fire. It must be realised that other priorities (active fires, heightened fire danger, crew reassignment etc) may prevent any burns.

Burns will be conducted for:

- Slash/hazard reduction. These will usually be conducted outside the research trials. Depending on timing and size (e.g. burning off the bogs), they may require a separate *Permit to Burn* from South Slave Region
- Research purposes
- Test burns . Small test burns (< 3m<sup>2</sup>) will be carried out by trained personnel only. They are used to assess burning conditions and train personnel in fire behaviour  
Due to their small size and close supervision by trained personnel, these burns do not require plans or notifications. All will be carried out with suppression capability immediately available.

### **Briefings**

#### **South Slave Duty Officer**

Before 09:00, the Project Manager will telephone the South Slave Region Duty Officer and give a briefing about planned burn activities. This communication also confirms the planned use of Strike Teams and the deployment of aircraft and any other matter, which pertains to the project.

The Daily Report (see *communications plan*) will also indicate that burning (slash or an experimental prescribed burn) is planned for the current day.

#### **Fort Providence Base**

The crews and Fort Providence Base personnel will receive a briefing on the day's activities by the Project Manager (or delegate) prior to 11:00.

#### **Project Daily Briefing**

A briefing will be held each day at 08:00 at the Snowshoe Inn. The briefing is primarily for the research scientists, overhead team, and support staff, however, anyone interested in the project may attend. The briefing will include, but not be limited to, the following topics:

- Planned activities for the day
- Fire weather (on days where experimental prescribed burns are planned)
- Safety
- Aircraft management and assignments

#### **WX briefings**

The Forest Management Division will provide the daily fire weather forecast and briefing through its contractor. These will be held daily at 1030 at the Ft Providence Base and relayed to the field.

Spot forecasts will be arranged for by the Project Manager as needed.

## **On-Site Briefings**

On days that an experimental prescribed burn is planned, all personnel will receive a briefing at least one hour prior to the burn to ensure they understand the activities and their roles.

## **Crew Briefing**

The crews will receive a briefing by the Project Manager (or delegate) each day. The briefing will include, but not be limited to:

- Activities for the day
- Fire weather
- Potential fire behaviour
- Work assignments
- Resource requirements
- Safety
- Aircraft
- Comms plan
- Org chart updates
- Site changes

## **Fire Weather Station**

ENR Comms Techs will establish a fire weather station on Block 1 (see Map 2) early in the season (May-June) to monitor fuel moisture conditions using the Canadian Forest Fire Weather (FWI) System and to monitor wind conditions on burn days. The station will be removed each fall.

## **Fireguards & Fuelbreaks**

Fire breaks and fuel treatments will be established prior to conducting any research burn. They will be checked and confirmed by the IC (or delegate) prior to burn operations.

## **Water Supply System**

A water supply system, consisting of pumps, hose, and portatanks, will be installed and tested prior to conducting any experimental prescribed burn or burning slash.

A borrow pit, located adjacent to Highway #3 (see Map 2), will be used as the source of water for the water supply system. Water has been pumped from this site over several years and has proved adequate. Water will be pumped from the borrow pit to a series of portatanks, located near the plot to be burned. The usual configuration is to have two tanks along the side of the plot where the fire will exit, located in opposite corners of the plot.

Additional water supplies may be established along the Birch bogs which surround the site as required.

## **Air Tanker Support**

The Territorial Duty Officer, on the advice of the Regional Duty Officer, will place the air tankers on appropriate alerts, based on the burn plan submitted by the Project Manager.

## **Notice to Airmen (NOTAM)**

An automatic NOTAM is in effect once ignition takes place. If one is required at any other time, the South Slave Regional Duty Officer may establish one. The information provided below applies.

<b>Site</b>	Canadian Boreal Community FireSmart Project
<b>Geographic location</b>	Highway #3 at kilometre 70.6
<b>Coordinates</b>	61° 35' north by 117° 10' west
<b>Time</b>	1300 to 1900 or otherwise stated
<b>Elevation</b>	4000 feet above sea level
<b>Radial distance</b>	5 kilometres

## **Burn Operations Incident Command System**

The experimental prescribed burns and slash burning will be conducted under an Incident Command System implemented by the Project Manager on burn days.

Prior to any burn, the Incident Commander &/or Project Manager will conduct training/briefing sessions to ensure that all aspects of the burn plan are clearly understood by personnel assigned to the Incident Command organization and that they understand their roles.

### **Incident Commander**

The Incident Commander is responsible for the maintenance of the water delivery system, preparing a fire suppression plan on “burn” days, and supervising the fire operations.

### **Strike Team Leader**

The Strike Team Leader is responsible for operating the water delivery system and the tactical deployment of other suppression equipment for use by the Strike Team(s).

### **Strike Teams**

The Strike Team(s) will be composed of 5 person wildland fire crews and are responsible for controlling and extinguishing burns under the direction of the Strike Team Leader.

### **Ignition Supervisor**

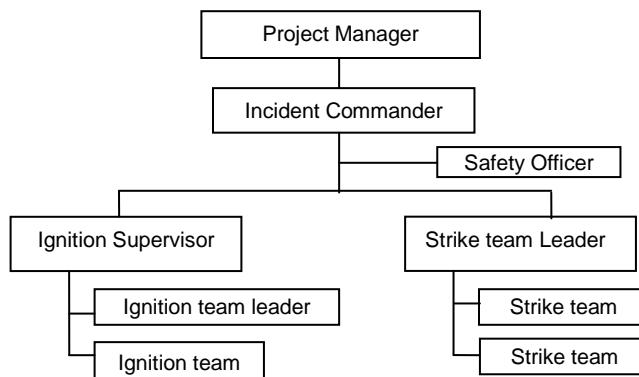
The Ignition Supervisor is responsible for selecting ignition devices, planning ignition patterns, monitoring wind and fuel moisture conditions prior to a burn and directing the Ignition Leader when to commence the ignition sequence.

### **Safety Officer**

In addition to other assigned responsibilities, the Safety Officer, during an experimental prescribed burn operation, is responsible for:

- Conducting a pre-burn briefing to all personnel on the Project site
- Restricting access to and establishing safety zones around burns
- Stopping any activity that poses a threat to the safety and well-being of personnel working on the Project site
- Conducting the sequence of safety checks coordinated with the Ignition Leader and Incident Commander prior to the ignition of a burn plot

### **Burn Operations Organization Chart**



## Designated Work Areas

The burn site will be cordoned off by the Safety Officer and designated work areas where only authorized personnel are permitted. All other personnel and visitors on the Project site will be directed to specific locations while the burn is being conducted.

## Count Down Procedures

The Incident Commander, Ignition Supervisor, and Safety Officer conduct the countdown procedures starting 30 minutes before the planned ignition time.

The Safety Officer has the authority to shut down the procedure at any time.

item	Go/No	Description	Time
1		Incident Commander telephones South Slave Regional Duty Officer <b>“30 minutes to Ignition”</b> Ignition Supervisor and Safety Officer sweep burn plot and confirm clear of all personnel	-00:30
2		Incident Commander directs R/W to start-up and begin positioning	-00:20
3		Ignition Supervisor advises Incident Commander to announce <b>“All Stations”</b> for activation of data collection instruments	-00:15
4		Science Team members complete activation of data collection instruments, clear burn plot area and report to Team Leader Team Leader confirms all clear for team members	-00:05
5		Safety Officer confirms burn plot is clear of personnel. <b>“Site all clear”</b> message transmitted to Incident Commander and confirmed.	-00:04
6		Incident Commander directs Ignition Supervisor to commence ignition sequence	-00:03
7		Ignition Supervisor confirms R/W in position and assesses Wx conditions to initiate ignition. Scrub ignition for instrument reset if 40 minutes past instrument activation	+00:40
8		Ignition Supervisor assesses Wx conditions to initiate ignition and announces <b>“All Stations Time X to Ignition”</b> . Countdown begins	-00:01
9		Ignition Supervisor signals Ignition Team or terra-torch to commence ignition	00:00
10		Fire burns through plot. Ignition Supervisor directs R/W return to helipad	Variable
11		Incident Commander confirms R/W down and clear	Variable
12		Incident Commander advises <b>“All Stations: Fire Suppression Commencing”</b>	Variable
13		Safety Officer clears burn plot for research personnel	00:40+/-
14		Fire suppression completed. Incident Commander returns burn site and air space control to Project Manager	Variable

## Fire suppression

Suppression will be undertaken by the Strike teams and not researchers unless requested.

## Escapes

Any escapes must be immediately reported to the South Slave Duty Officer at

**867-872-6422(p) / 0541(c)**

## **SAFETY PLAN**

### **Objective**

The objective is to minimize the risk of injury or death for all persons working on or visiting the Project site.

### **Safety Officer**

The Project Manager will assign a person to the position of Safety Officer.

Safety Officer(s) will be assigned for the entire project. The Project Manager assumes the duties and responsibilities of the Safety Officer should one not be available..

The Safety Officer is responsible for administrating a safe work environment for all personnel and visitors to the Project site, specifically by:

- Receiving full and complete support from all personnel
- Preparing safety plans for specific activities
- Preparing and delivering briefings
- Establishing designated work areas
- Having full veto on any activity which they determine is unsafe.

### **Briefings**

The Project Manager or delegate (usually the Safety Officer) will conduct a briefing to all personnel before they begin work on the site and whenever specific briefings are required.

### **Personal Protective Equipment**

PPE will be worn by all staff. Visitors will be lent PPE as required.

Basic requirements:

- Nomex clothing
- Gloves
- Helmet with chin straps
- Boots
- Eye protection
- Personal First Aid kit

And as required:

- Hearing protectors
- Saw chaps
- Face screens
- Saw gloves

### **Aircraft Safety Briefing**

Prior to their first flight, all personnel involved with the project must participate in an aircraft safety briefing conducted by the pilot of each aircraft type.

### **Safety Audits**

The Project Manager or Safety Officer will conduct safety audits from time to time.

### **Safety Issues**

Any safety issues must be brought to the attention of the Project Manager/Safety Officer as soon as it is identified.

## MEDICAL PLAN

<b>SITE MEDICAL FACILITY</b>							
<b>MEDICAL AID STATIONS</b>	<b>LOCATION</b>		<b>ATTENDANT (Y/N)</b>	<b>CONTACT</b>			
Site 1 <sup>st</sup> Aid Centre	Staging area		No	CH-5			
<b>SITE TRANSPORTATION</b>							
<b>VEHICLE</b>	<b>LOCATION</b>		<b>ATTENDANT (Y/N)</b>	<b>CONTACT</b>			
Crew Cab	Staging area		Yes	CH-5			
Helicopter	Site Helispot		Yes	CH-5			
<b>AMBULANCE SERVICES</b>							
<b>NAME</b>	<b>LOCATION</b>		<b>ATTENDANT (Y/N)</b>	<b>CONTACT</b>			
	NONE						
<b>HOSPITALS/HEALTH SERVICES</b>							
<b>LOCATION</b>	<b>TRAVEL TIME</b>		<b>HELIPAD</b>		<b>BURN UNIT</b>		<b>CONTACT</b>  Via Ft Prov Base CH5 or 867-699- 3014/3029
	<b>GRND</b>	<b>AIR</b>	<b>YES</b>	<b>NO</b>	<b>YES</b>	<b>NO</b>	
Fort Providence Nursing Station	00:30	00:10	X			X	
Yellowknife Hospital	4:00	1:20	X			X	
Edmonton Royal Alexander	14:00	2:15	X		X		

### Incident & Accident Reports

The Safety Officer or Project Manager will conduct an investigation of all incidents and accidents associated with activities of the project and prepare the appropriate reports, including a shell analysis and workman's compensation report.

## ON SITE COMMUNICATIONS PLAN

The Project Manager will set up a communications network integrated with the South Slave Regional network to communicate information about conducting burns on the Project site. This will include having a satellite phone on site.

### **Radios**

ENR will supply hand held radios

### Radio Frequencies

The following radio frequencies have been assigned to the Project. Communication from the Project site to Fort Providence Base, if not relayed by radio, will be conducted using a Satellite Phone.

FUNCTION	CHANNEL	FREQUENCY	
		Transmit	Receive
Project site air-to-ground	5	153.470	153.470
Project site	5	153.470	153.470
Fort Providence Area Office	6	153.890	153.890
Caen Tower (relay CH-5 to Fort Providence Area Office) <b><i>NOT operational for 2012</i></b>	6	153.890	153.890
Air Attack		122.90	122.90
Air Attack		131.85	131.85
Air to Air		122.05	122.05
Air Advisory		126.70	126.70
Fort Providence Aerodrome		123.20	123.20

### **Sat Phones**

Radio comms out of the site are marginal to poor. Sat phones will be available on site with the Project mgr and FPInnovations. The Crew(s) will also have a sat phone if available.

### Phone Numbers

Fort Providence Base..... 867-699-3014/3029

South Slave Duty Officer.....867-872-6422(p) / 0541(c)

Project Manager Sat Phone.....\_\_\_\_\_

FPInnovations Sat Phone.....\_\_\_\_\_

Snowshoe Inn.....867-699-3511

Territorial Duty Officer.....867-872-7711/10

North Slave Duty Officer.....867-920-6115

Frank Channel Base.....867-371-3133(p) 5001(f)

FMD HQ.....867-872-7700



## **Appendix A - 2012 PROJECT WORKPLANS**

### **To be supplied by research groups by March 2012**

General outline

**Name**

**Title** *short and descriptive,*

**LEAD** *Name / Organisation / phone number*

**CBCFS Block Plot** *and /or other description of project area*

**Objectives:** *Brief description of what the project hopes to accomplish.*

**Methods:** *Description of how the project will be set up/ carried out.*

**Co-operators:** *agencies involved*

**Deliverables:** *Report? Article? What is going to come out of this project and an expected date?*

**Burning conditions required:** *Be as specific as possible.*

**Site preparation:** *Be as specific as possible*

**Resources required for burning:** *Be as specific as possible*

**Map of plot treatment** ---

**Ignition plan Map** north, light up actions, suppression set up, safety zones/escape routes.

### **Mooney - Project 1**

#### **Title: Fire Behaviour in Simulated Mountain Pine Beetle Attacked Jack Pine**

**Lead:** Colleen Mooney FPIInnovations 780-817-1840

**Plot ID:** MPB Plot

**Objectives:** Document fire behaviour and identify differences between control and treated stand.

**Methods:** Crown fire will be created in the control stand and run into the treated stand (girdled trees).

**Co-operator:** ASRD

**Deliverable:** Final report with images

**Burn Conditions:** FFMC >90; WS >15 km/h

**Site Preparation:** none required; site prepared in 2008

**Resources:** hose; pumpkin; terra torch or 2 drip torch; 20 gallons Flash 21; one crew

**Plot Map:** see attached

**Ignition Plan:** see attached

### **Mooney - Project 2**

#### **Title: Effectiveness of Stand Thinning/Stand Cleaning as a Fuel Treatment in Jack Pine**

**Lead:** Colleen Mooney FPIInnovations 780-817-1840

**Plot ID:** GD1 & GD2

**Objectives:** Test the effect that 1m and 2m inter-crown spacing and stand-cleaning has on the behaviour of an upwind crown fire as it burns up to and through the treated area.

**Methods:** Crown fire will be created in the control stand and run into the treated stand (thinned and cleaned).

**Co-operator:** ASRD

**Deliverable:** Final report with images

**Burn Conditions:** FFMC >90; WS >15 km/h

**Site Preparation:** none required; sites prepared in 2011

**Resources:** hose; pumpkin; terra torch or 2 drip torch; 20 gallons Flash 21; one crew

**Plot Map:** see attached

**Ignition Plan:** see attached

# FPInnovations Wildfire Operations Research

Plot Map and Ignition Plan Map - Mooney  
June 2012

## GD1 Plot:

- Want to burn this before GD2.
- Burn with south wind preferably, but can also burn with west or east wind.
- Existing wicks along south edge and east edge of treated portion.
- Line ignitions along south edge if south wind; west edge if west wind and east edge if east wind.
- Line ignitions will utilize wicks preloaded with Flash21.

## GD2 Plot:

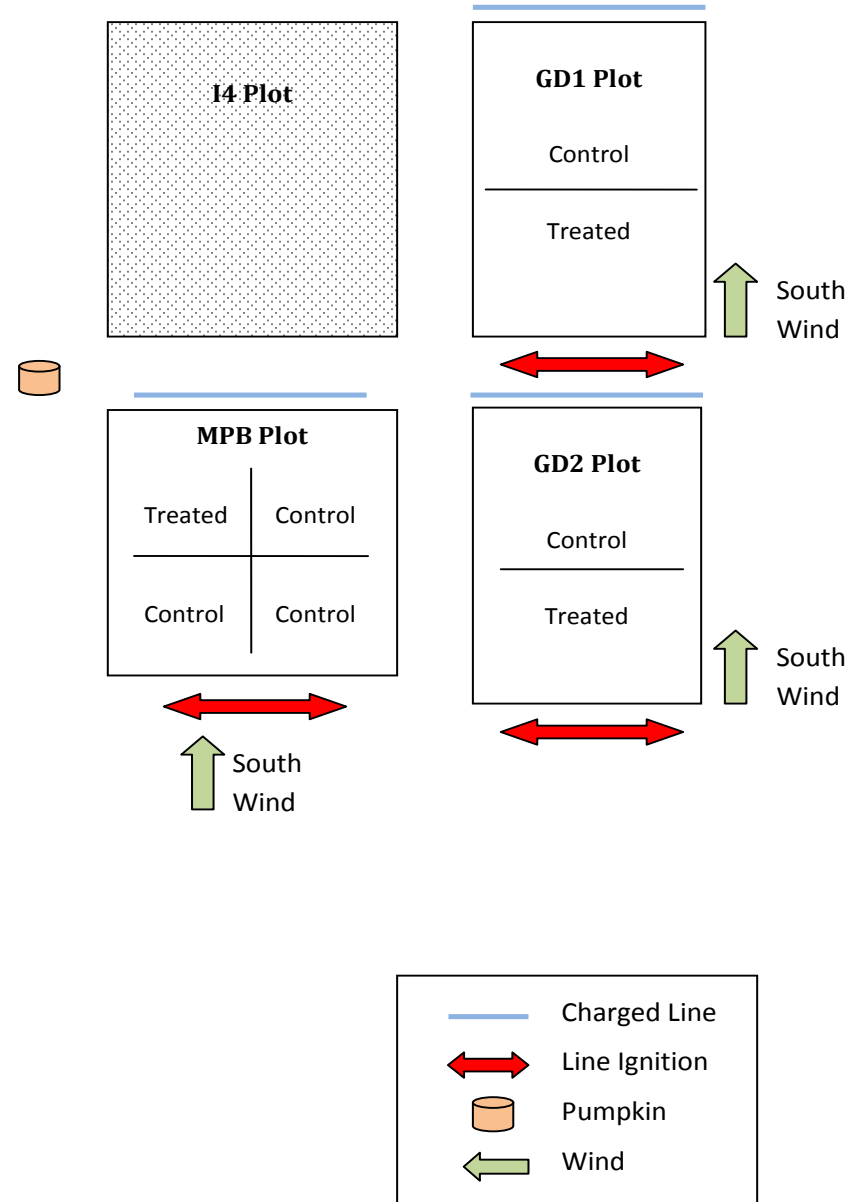
- Burn with south wind preferably, but can also burn with west or east wind.
- Not aware at this time if wicking exists.
- If wicks do exist, line ignitions will utilize these preloaded with Flash 21.
- Ignitions along south edge if south wind; west edge if west wind; east edge if east wind.

## MPB Plot:

- Can burn from with south or east wind.
- Charged line around entire plot.

## Requirements:

- one crew
- pumpkin and hose
- terra torch or 2 drip torches
- 20 gallons of Flash21 for each wick line



### **Baxter - Project 1**

#### **Title: Fire Behaviour in 'Stand Cleaned' Pine stands.**

**Lead:** Greg Baxter FPIInnovations 780-817-1840

**Plot ID:** TBD

**Objectives:** Document fire behaviour and identify differences between control and treated plots.

**Methods:** Fire will be created in the control stand and the treated stand (cleaned) at the same time and fire behaviour compared.

**Co-operator:** ASRD

**Deliverable:** Final report with images

**Burn Conditions:** FFMC >90; WS >15 km/h

**Site Preparation:** Select and treat plot; burn plot

**Resources:** hose; pumpkin; terra torch or 2 drip torch; 20 gallons Flash 21; one crew

**Plot Map:** see attached

**Ignition Plan:** Line ignition will be initiated along the upwind edge of the control plot using a terra torch

### **Baxter - Project 2**

#### **Title: Survival Zones**

**Lead:** Greg Baxter FPIInnovations 780-817-1840

**Plot ID:** SZ1 & SZ2

**Objectives:** To run a crown fire into a 50 m diameter survival zone to determine if there are locations within the zone that are survivable.

**Methods:** Crown fire will be created and run into the survival zone.

**Co-operator:** ASRD, U of Alberta

**Deliverable:** Final report with images

**Burn Conditions:** FFMC >90; WS >15 km/h (east)

**Site Preparation:** none required in SZ1; pile burning in SZ2.

**Resources:** hose; pumpkin; terra torch; 20 gallons Flash 21; one crew

**Plot Map:** see attached

**Ignition Plan:** Line ignition will be initiated along the upwind edge of the control plot using a terra torch

### **Baxter - Project 3**

#### **Title: Fire Behaviour in 'Under-burned' Pine stands.**

**Lead:** Greg Baxter FPIInnovations 780-817-1840

**Plot ID:** Plot 6 (Marty's) plus others TBD.

**Objectives:** Document fire behaviour and identify differences between control and under-burned stands. Re-burn under high indices.

**Methods:** Fire will be created in the control stand and the treated stand (Plot 6) at the same time and fire behaviour compared. Re-ignitions will also be performed in under-burned stands.

**Co-operator:** ASRD, GNWT

**Deliverable:** Final report with images

**Burn Conditions:** FFMC >90; WS >10 km/h

**Site Preparation:** Select and document stands.

**Resources:** hose; pumpkin; terra torch or 2 drip torch; 20 gallons Flash 21; one crew

**Plot Map:** see attached

**Ignition Plan:** strip off surface fuels using line ignition along upwind edge of plot using hand torches.

### **Ault - Project 1 (tentative due to rotary wing costs)**

#### **Title: Documentation of changes in fire behaviour from helicopter gel drops**

**Lead:** Ray Ault FPIInnovations 780-817-1840

**Plot ID:** Blow down plots and piles along the north west plot corridors (these piles are debris from cutting the fuel breaks between the 18 Marty plots)

**Objectives:** Document gel effectiveness in slash and blow down fuels when compared to water and foam

**Methods:** Individual piles of debris will be ignited with the fire allowed to consume the finer fuels and turn to embers. Bucket drops of water, gel and foam will be dropped on the piles and the results documented. If conditions allow, a portion of the blow down plot will be ignited and gel will be dropped on the fire front.

**Co-operator:** NT, CIFFC, ASRD

**Deliverable:** Final report with images

**Burn Conditions:** The drier the better.

**Site Preparation:** none required, use existing piles and plots

**Resources:** Helicopter, ground crew for control with charged hose line

**Ignition Plan:** light piles on a quiet day with little or no wind

### **Campbell - Project 2**

#### **Title: Testing of prototype ATV terra torch system using inline flash 21 mixing**

**Lead:** Ray Ault FPIInnovations 780-817-1840  
**Plot ID:** Undetermined, close proximity to water availability  
**Objectives:** Test and document terra torch system.  
**Methods:** Operate the torch system under a variety of conditions to ensure the product meets expectations.  
**Co-operator:** NT  
**Deliverable:** Final report with images  
**Burn Conditions:** open  
**Site Preparation:** none required; sites prepared in 2010  
**Resources:** hose; pumpkin; terra torch with 20 gallons Flash 21; one crew  
**Ignition Plan:** Line ignition will be initiated along the upwind edge of the control plot using a terra torch

### **Campbell - Project 1**

#### **Title: Ignition Device Evaluation**

**Lead:** Roy Campbell FPIInnovations 780-817-1840  
**Plot ID:** No specific plots designated for ignition testing – evaluation will be conducted during the ignition of other research projects  
**Objectives:** Ignition device evaluation  
**Methods:** Information will be gathered in conjunction with research project testing.  
**Co-operator:** ASRD  
**Deliverables:** Report, evaluation process, decision matrix, video & pictures, write-up for the Alberta Ignition Manual (2011)  
**Burn Conditions:** Project specific  
**Site Preparation:** Project specific  
**Resources:** Ignition team  
**Plot Map:** Project specific  
**Ignition Plan:** Project specific

**Campbell - Project 2 (tentative and dependent on prototype delivery)**

**Title: Wildland Fire Sprinkler Design**

**Lead:** Roy Campbell  
**Plot ID:** TBD  
**Objectives:** Test new sprinkler prototype. This could be done in conjunction with suppression needs e.g. along control line downwind of ignition.  
**Methods:** Deploy sprinkler line along control line  
**Co-operator:** ASRD  
**Deliverable:** New sprinkler design & prototype; final report with video and images  
**Burn Conditions:** Project specific  
**Site Preparation:** Sprinkler set up along control lines  
**Resources:** Crew will be required to set up sprinkler line if testing goes ahead.  
**Plot Map:** Project specific  
**Ignition Plan:** Project specific

**Campbell - Project 4**

**Title: Structure Protection (to be revised)**

**Lead:** Roy Campbell FPIinnovations 780-817-1840  
**Plot ID:** I5  
**Objectives:** To run a crown fire into a community protection zone to understand how various treatments influence fire behaviour and structure survival.  
**Methods:** Crown fire will be created and run into the community protection zone.  
**Co-operator:** ASRD, U of Alberta, GNWT  
**Deliverable:** Final report with images  
**Burn Conditions:** FFMC >90; WS >15 km/h  
**Site Preparation:** TBD.  
**Resources:** hose; pumpkin; terra torch; 20 gallons Flash 21; one crew  
**Plot Map:** see attached  
**Ignition Plan:** line ignition using terra torch or multiple torches on upwind side of plot.

### **Campbell - Project 2**

#### **Title: Testing of prototype ATV terra torch system using inline flash 21 mixing**

**Lead:** Ray Ault FPIInnovations 780-817-1840

**Plot ID:** Undetermined, close proximity to water availability

**Objectives:** Test and document terra torch system.

**Methods:** Operate the torch system under a variety of conditions to ensure the product meets expectations.

**Co-operator:** NT

**Deliverable:** Final report with images

**Burn Conditions:** open

**Site Preparation:** none required; sites prepared in 2010

**Resources:** hose; pumpkin; terra torch with 20 gallons Flash 21; one crew

**Ignition Plan:** Line ignition will be initiated along the upwind edge of the control plot using a terra torch

### **Hvenegaard - Project 1**

#### **Title: Ignition Probability in Mulched Fuel Beds**

**Lead:** Steven Hvenegaard FPIInnovations 780-817-1840

**Plot ID:** new and aged mulched lines SW of staging area

**Objectives:** Document ignitions in mulched fuel beds of various ages with varying fuel moisture levels and weather conditions.

**Methods:** Ignition testing will be conducted using a two minute match test (Advantage Report, vol. 7, no. 12). Ignition testing will be conducted hourly throughout the day during the timeframe of the experimental burns. Fuel samples will be collected for moisture content measurement. Weather conditions will be recorded using a RAWS and a Kestrel portable weather station.

**Co-operator:** ASRD

**Deliverable:** Final report with images

**Burn Conditions:** Previous ignition indicates that an FFMC of 80 or less does not yield successful ignitions.

**Site Preparation:** none required; site prepared in 2010

**Resources:** no additional resources required; Wajax bags on site

**Ignition Plan:** hourly ignition testing will be conducted



### **Hvenegaard - Project 2**

#### **Title: Effectiveness of Mulching as a Fuel Treatment in Jack Pine**

**Lead:** Steven Hvenegaard

**Plot ID:** Grid mulched area SW of staging area

**Objectives:** Document the effect of mulching as a fuel reduction treatment in a jack pine fuel type on fire behaviour as crown fire impinges on the treated plot.

**Methods:** Crown fire will be created in the control stand and run into the treated stand (mulching).

**Co-operator:** ASRD

**Deliverable:** Final report with images

**Burn Conditions:** FFMC >90; WS >15 km/h

**Site Preparation:** none required; sites prepared in 2010

**Resources:** hose; pumpkin; terra torch or 2 drip torch; 20 gallons Flash 21; one crew

**Ignition Plan:** Line ignition will be initiated along the upwind edge of the control plot using a terra torch or drip torch

### **Hvenegaard - Project 3**

#### **Title: Fire Behaviour in a Mulched Fuel Bed**

**Lead:** Steven Hvenegaard

**Plot ID:** Mulched area SW of staging area

**Objectives:** Document fire behaviour in a mulched bed

**Methods:** Line ignition will be initiated on the leading edge of an open plot (preferably 10 m X 10 m) of mulched fuel (jack pine). Observations of fire behaviour will be made with video, time-lapsed photography and in-fire video. Weather conditions will be recorded with a Kestrel weather station and a RAWS. Mulch samples will be oven dried to determine fuel moisture content.

If possible, these methods will be repeated in another plot with different age of mulched fuel.

**Co-operator:** ASRD

**Deliverable:** Final report with images

**Burn Conditions:** FFMC >90; WS >15 km/h

**Site Preparation:** None anticipated; sites prepared in 2010; Wetting of plot perimeter may be considered as a precautionary measure.

**Resources:** Pump and hose; pumpkin; 2 drip torches; one crew

**Ignition Plan:** Line ignition will be initiated along the upwind edge of the mulched fuel bed using a terra torch or drip torch.

## Appendix B - Annual target dates

DATE:	Activity	WHO
Year round	Search out other groups looking to do research	<ul style="list-style-type: none"> <li>• Project Manager</li> </ul>
Fall	attend FPIInnovations fall AGM <ul style="list-style-type: none"> <li>• secure drafts of upcoming seasons projects</li> <li>• remind group of deadlines/formats/ requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Project Manager</li> <li>• Manager, Science Section</li> </ul>
Feb-30	Review Land Use Permit # MV20092X0005. (Expiry date: April 29 2014)	<ul style="list-style-type: none"> <li>• Project Manager</li> </ul>
Feb-30	Draft plan out to players for comments	<ul style="list-style-type: none"> <li>• Project Manager</li> </ul>
March	Attend Spring FPIInnovations mtgs <ul style="list-style-type: none"> <li>• get finals of work plans</li> <li>• present draft ops plan</li> <li>• Review resource list</li> </ul>	<ul style="list-style-type: none"> <li>• Project Manager</li> </ul>
March	Contact all participants to get copies of project work plans and updates	<ul style="list-style-type: none"> <li>• Project Manager</li> </ul>
Apr-30	Final OPs plan out to participants	<ul style="list-style-type: none"> <li>• Project Manager</li> </ul>
Apr-30	Obtain a Permit to Burn from Forest Management Division.	<ul style="list-style-type: none"> <li>• Project Manager</li> <li>• South Slave Manager of Forests</li> </ul>
Apr 30	Contact Radio Techs re portable rptr/sat connection.....	<ul style="list-style-type: none"> <li>• Project Manager</li> </ul>
Apr-30	Meet with South Slave Manager of Forests to discuss coming projects  Review Ops Plan  Discuss and arrange for: <ul style="list-style-type: none"> <li>• crews</li> <li>• heli</li> <li>• use of wildlife shack</li> <li>• First Aid</li> <li>• Equipment (Appendix D)</li> <li>• Quad(s)</li> <li>• Radio Op (at Fort Providence Base) during burns</li> </ul>	<ul style="list-style-type: none"> <li>• Project Manager</li> <li>• South Slave Manager of Forests</li> </ul>

Apr-30	Review VARs	<ul style="list-style-type: none"> <li>• Project Manager</li> <li>• GIS Analyst</li> <li>• South Slave Manager of Forests</li> </ul>
May	Install Wx station onsite	<ul style="list-style-type: none"> <li>• Project Manager</li> <li>• Telecomm Techs</li> </ul>
May-15	Info/briefing to ENR Manager, Public Affairs and Communication	<ul style="list-style-type: none"> <li>• Project Manager</li> </ul>
May-30	Arrange for additional staff	<ul style="list-style-type: none"> <li>• Project Manager</li> <li>• South Slave Manager of Forests</li> <li>• Manager Forest Science</li> </ul>
Jun-01	Confirm resources (tables and dates in Plan) ready to go week of June 13 <sup>th</sup> and 18 <sup>th</sup> as required.	<ul style="list-style-type: none"> <li>• Project Manager</li> </ul>
Jun-14	Notify the media about the Project	<ul style="list-style-type: none"> <li>• Manager, Public Affairs and Communication</li> </ul>
Jun-15	<ul style="list-style-type: none"> <li>• Contact the Inspector and Mackenzie Valley Land and Water Board</li> <li>• Contact Wx contractor about Spot forecasts</li> </ul>	<ul style="list-style-type: none"> <li>• Project Manager</li> </ul>
Jun 20 +/-	Arrival at site and start of session	<ul style="list-style-type: none"> <li>• All</li> </ul>
End of research session	<ul style="list-style-type: none"> <li>• Contact the Inspector and Mackenzie Valley Land and Water Board</li> <li>• briefing to ENR Manager, Public Affairs and Communication</li> <li>• contact South Slave manager of Forests to ensure all kit returned, briefing etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Project Manager</li> </ul>
July/September	review of project, fine tune etc	<ul style="list-style-type: none"> <li>• Project Manager</li> </ul>
September	Remove WX Stn from Site	<ul style="list-style-type: none"> <li>• Project Manager</li> <li>• Telecomm Techs</li> </ul>
November	FPIinnovations advisory mtg.	<ul style="list-style-type: none"> <li>• Project Manager</li> </ul>
		<ul style="list-style-type: none"> <li>•</li> </ul>

### Appendix C - Typical daily schedule

0730	All but crews	Breakfast
0745	Proj Mgr	Collect Spot forecast from Snowshoe front desk if faxed
0800	Proj Mgr, researchers	Morning briefing
0830	Researchers	Leave Ft Providence for site
0830	Proj Mgr	Depart for Ft Providence fire base
0830 – 1300	Researchers, crews	Site preparation for day's activities
0900	Proj Mgr	Update South Slave Region Duty Officer on day's activities Update Ft Providence Base staff on day's activities
0930	Crews	Depart for site
1000	Proj Mgr	Daily report faxed to principal collaborators
1030	Proj Mgr & others as needed	Daily WX briefing @ fire base
1230	Proj Mgr	Leave Ft Providence for site
1300	Researchers	Collection of onsite WX readings
1330	Proj Mgr/IC, ALL	Briefing on activities for day
1330 – 1730	All	Burns &/or preparation, other research
1730	Crews	Suppression/mop-up
1800	Proj Mgr	Return to town and contact WX contractor: <ul style="list-style-type: none"> <li>• Request Spot forecast for next day</li> <li>• Relay Wx obs for current day</li> <li>• Relay WX stn data</li> </ul>
1900	All but crews	Return to town
1900- ?	Crews	Continue suppression/mop-up (Usually completed before this time)
1930 - 2100	All but crews	Supper and evening review/planning
2100	Proj Mgr	Prepare daily report for next day

BOLD times are set and cannot be changed.

## Appendix D - Resource requirements for research burns

This is a basic list and may be augmented at the spring planning meeting.  
This is only the equipment supplied by ENR. Researchers will have separate equipment needs and it is their responsibility to arrange for its procurement and transport to the site and security.

### FIRE EQUIPMENT

Via: South Slave Manager of Forests                      Deliver to JP week of June 18

#	Description	Source	Remarks
1	Trailer	Regional stores	To tspt equipment
150	Hose lengths	Regional & Territorial stores	
4	Portatanks Complete with frames	Regional stores	Deliver to JP week of June 18
4	Pump kits complete	Regional stores	Deliver to JP week of June 18
15	Backpack pumps	Regional stores	Deliver to JP week of June 18
6	Drip torches	Regional stores	Deliver to JP week of June 18
50 L	Drip torch fuel	Regional stores	
1 bbl	Unmixed gas	Regional stores	For saws, quads etc
1	bbl pump	Regional stores	
1	Ranger tent	Regional stores	Deliver to JP week of June 18
1	"Trash" pump kit	Regional stores	Deliver to JP week of June 18
1	Spill kit	Regional stores	
1 case ea.	flagging	Regional stores	Yellow, Orange
4 cases	Chain oil	Regional stores	
2	Chainsaw kits	Regional stores	
1 case	Mix oil	Regional stores	

### OFFICE & COMMUNICATIONS EQUIPMENT

Via: Project Manager

Ready for transport June 13

#	Description	Source	Remarks
6	Hand-held radios	Communications Group	w/keypads, batteries
1	Satellite data/fax system	Communications Group	If available
1	Portable rptr	Communications Group	If available
1	Satellite phone	Communications Group	
1	Printer complete	Territorial stores	
1	laptop	FMB	Copy of Behave
500	Paper	Territorial stores	

### TRANSPORTATION

Ready June 18

#	Description	Source	Remarks
1	4X4 pickup	FMD, Fort Smith	<i>Via Project Manager</i>
2	4x4 "quads" c/w trailers	South Slave region	<i>Via South Slave Manager of Forests</i>

## **AIRCRAFT**

Based on past experience, one light or intermediate helicopter will meet the operational requirements of the project. In addition to providing rotary wing support the machine may be required to move equipment and supplies. Aircraft will be arranged by the Project Manager via the South Slave Duty Officer. As much notice as possible is required.

## **WILDLIFE SHACK**

Use of the wildlife shack requested for use by researchers to temporarily store equipment and operate drying ovens for fuel moisture sampling. The wildlife shack will not be used as sleeping quarters.

## **HUMAN RESOURCES**

### **Radio Operator**

A radio operator should be on duty at the Fort Providence Base Station during the period June 15 to the conclusion of the field season. This requirement is essential on days when burns are planned.

### **Wildfire Crews**

Evergreen Forest Management Limited has a contract with the Forest Management Division to provide basic forest management services. 5 person Crews are based at the Fort Providence Fire Base. One supervisor and these crews (or others designated by South Slave Manager of Forests/Duty Officer) will be used to develop the Project site and assist with the experimental prescribed burns.

### **Heavy equipment**

Any heavy equipment needs will be arranged by the Project Manager in consultation with the South Slave Manager of Forests/Duty Officer

### **Community Projects Coordinator**

A person will be assigned from the Fort Providence Base to act in this capacity as and when required by the Project Manager in consultation with the South Slave Manager of Forests.

### **Telecomm Technician**

The Project Manager will arrange for a Telecomm Technician to set up and remove the Wx station and any other communications needs.

## **PHONE NUMBERS**

Fort Providence Base..... 867-699-3014/3029

South Slave Duty Officer..... 867-872-6422(p) / 0541(c)

Project Manager Sat Phone..... \_\_\_\_\_

FPIinnovations Sat Phone..... \_\_\_\_\_

Snowshoe Inn.....867-699-3511

Territorial Duty Officer.....867-872-7711/10

North Slave Duty Officer.....867-920-6115

Frank Channel Base.....867-371-3133(p) 5001(f)

FMD HQ.....867-872-7700

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