Confederation Lake Prescribed Burn:
Renewal of a Natural Disturbance

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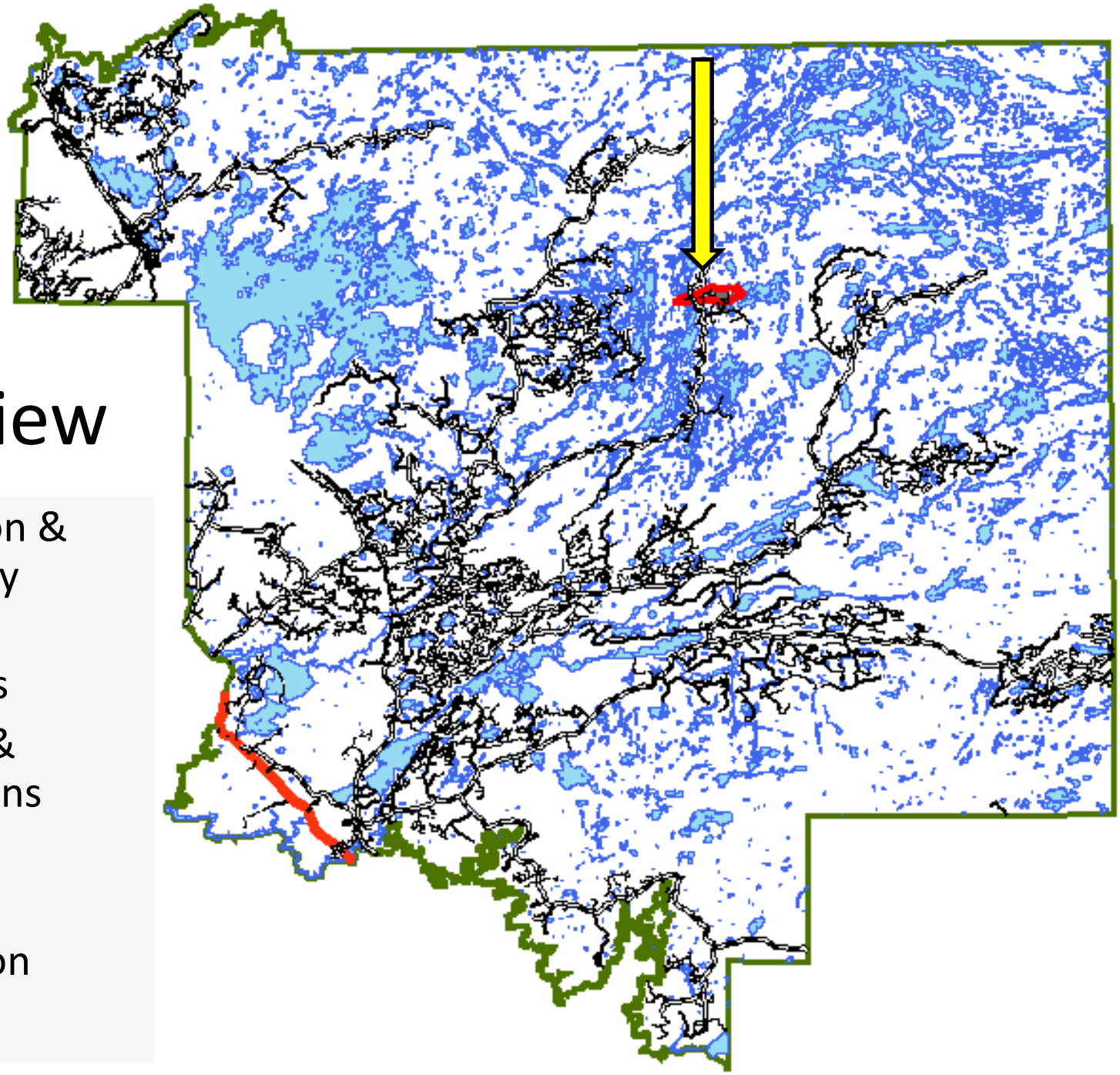
Overview

- Description & site history
- Project Objectives
- Planning & Applications Process
- Burning
- Completion
- Summary



Wind storm in 2007 damaged 400 ha between Okanse and Confederation Lakes.

Activities since 2007:

- 2008/9 salvage harvest was attempted
- 2010/11 Foresty Futures Trust (FFT) funded site prep and plant of area successfully salvage harvested (272 ha)
- 2010-12 MNRF Fire Time Study for Equipment making firelines
- 2012 applied to Species at Risk and FFT in partnership with MNRF Fire for PB of remaining area

Prescribed Burn Objectives

1. Use prescribed fire as a site preparation tool to allow site to become productive again;
2. Restore habitat for woodland caribou.

Forestry Futures Trust Funding

- Prescribed Burn Proposal was submitted in 2013 for work to occur over 2 year period:
  - Year 1 – Prepare site for burning, burn it & produce seedlings
  - Year 2 – Plant seedlings and monitor for survival
  - Domtar, Red Lake Fire & MNRF District all contributed to project

Forestry Futures Trust Funding

Funding for Year 1 ;

- Fire guard construction – D8 and feller buncher
- Seedling production – Wabigoon First Nation Nursery grow Black Spruce Seedlings
- Aerial Ignition of the Project Area
- Fire Monitoring/results documentation

Forestry Futures Trust Funding

Funding for Year 2;

- Plant seedlings and monitor results (100%)
- Prescribed burn used as site prep and consistent with 2009 Trout Forest FMP

Species At Risk Funding

- Combination of Fire and Reforestation
- Application of fire and jack pine/black spruce planting
- In line with the Dynamic Caribou Habitat Schedule- ensure entire mosaic is suitable habitat in 60 years

Species at Risk Funding

- Blowdown was adjacent to a documented woodland caribou calving lake and within an A block (harvest prior to 2019)
- May inhibit woodland caribou occupancy and/or habitat use in affected areas
- Physical barrier to movement. Not traversable to either human or large ungulate

Species at Risk Funding

Funding for Year 1

- High Complexity Prescribed Burn Application
- HCPB Plan
- Fuel Analysis
- Public Notifications (1%)

Species at Risk Funding

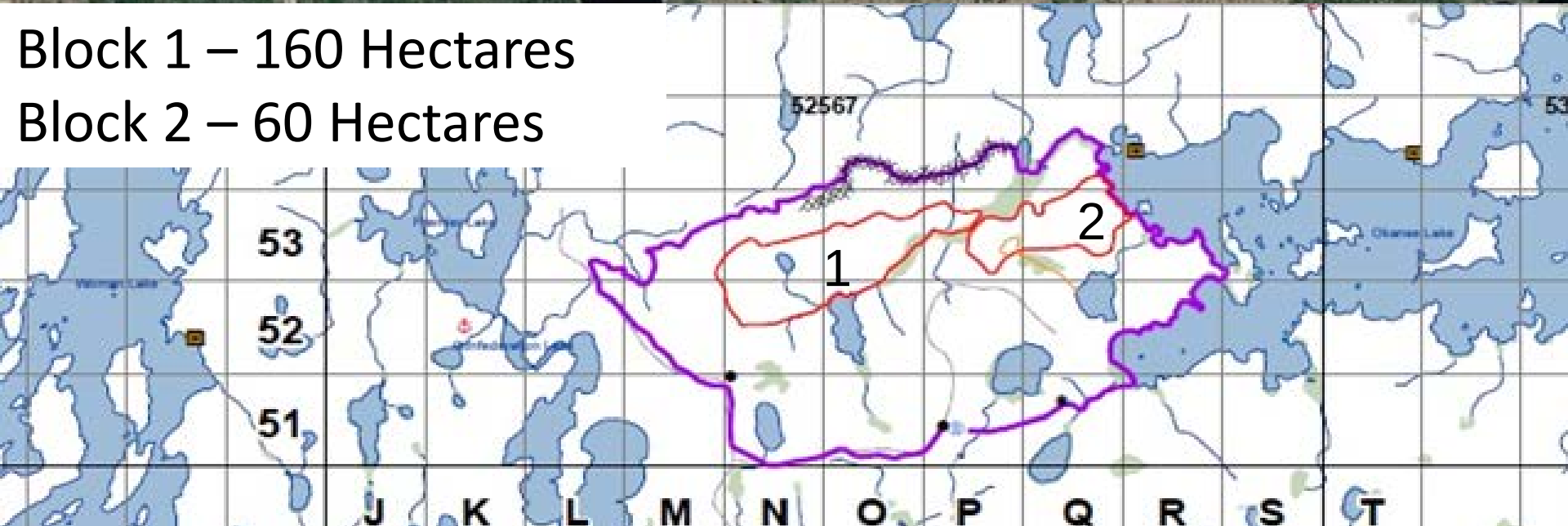
- Conducting the Prescribed Burn (50%)
- Post Burn Analysis
- Production of Seedlings (49%)

<u>Funding for Year 2</u>

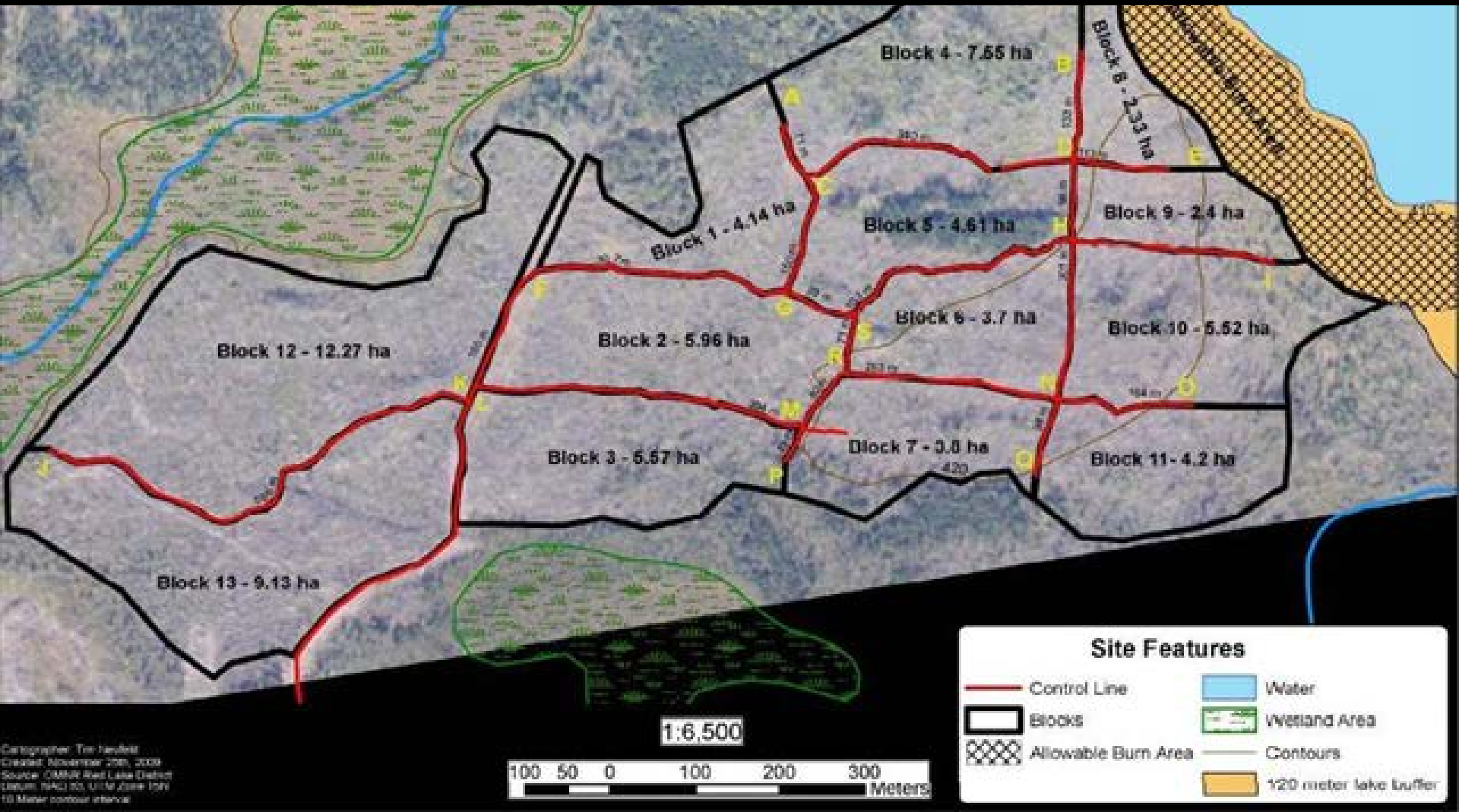
- Plant seedlings

Block 1 – 160 Hectares

Block 2 – 60 Hectares



- Feller buncher – Articulating Head – 1km/1.5-2 hrs
- Bulldozer not to be used as lead
- Skidder preferred for initial access
- Excavators must have thumb



Fire Guard Construction

High Complexity Prescribed Burn Plan

The Prescribed Burn Manual and the ***Guide to High Complexity Prescribed Burn Planning in Ontario*** were used to complete the plan

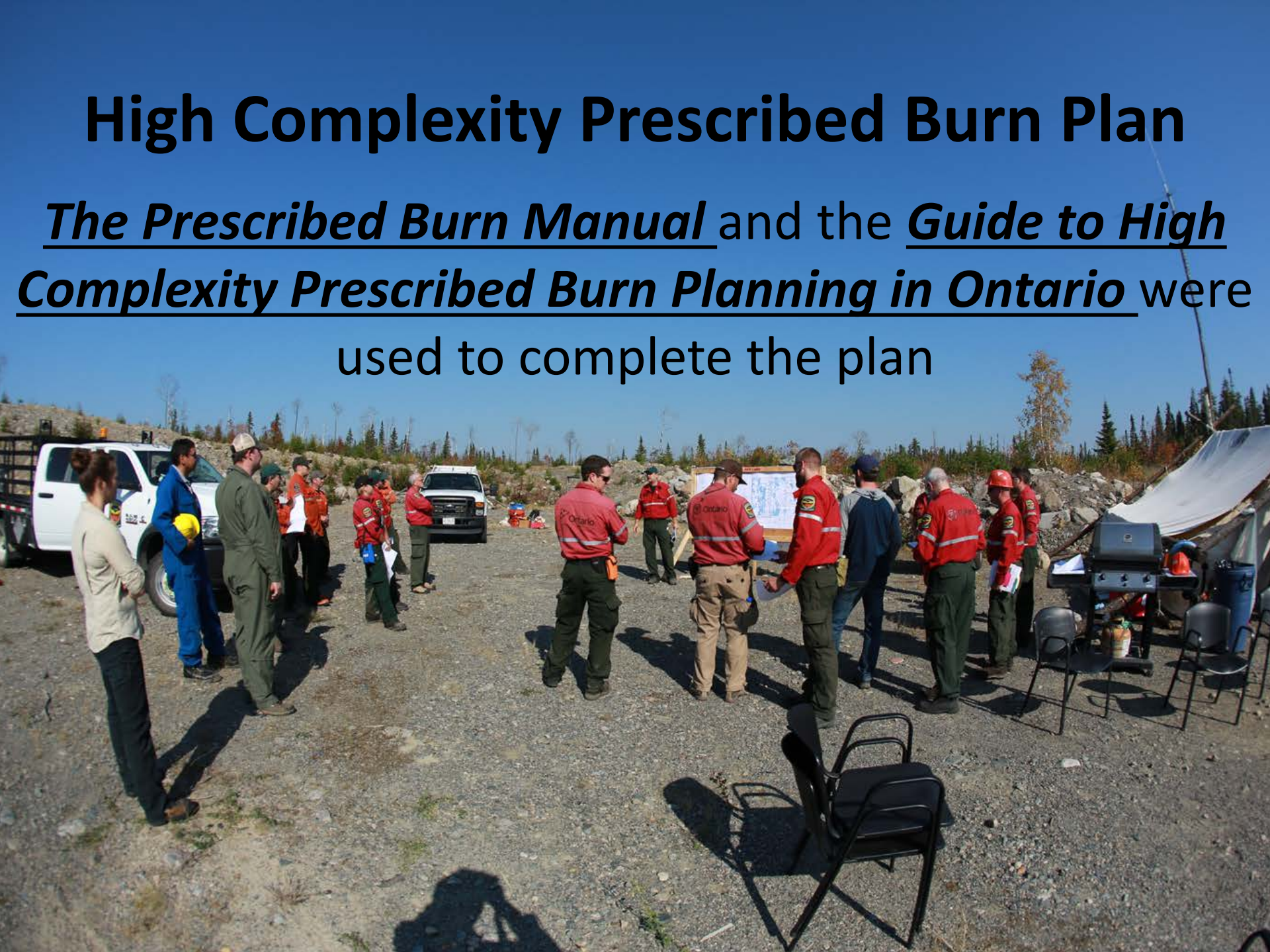
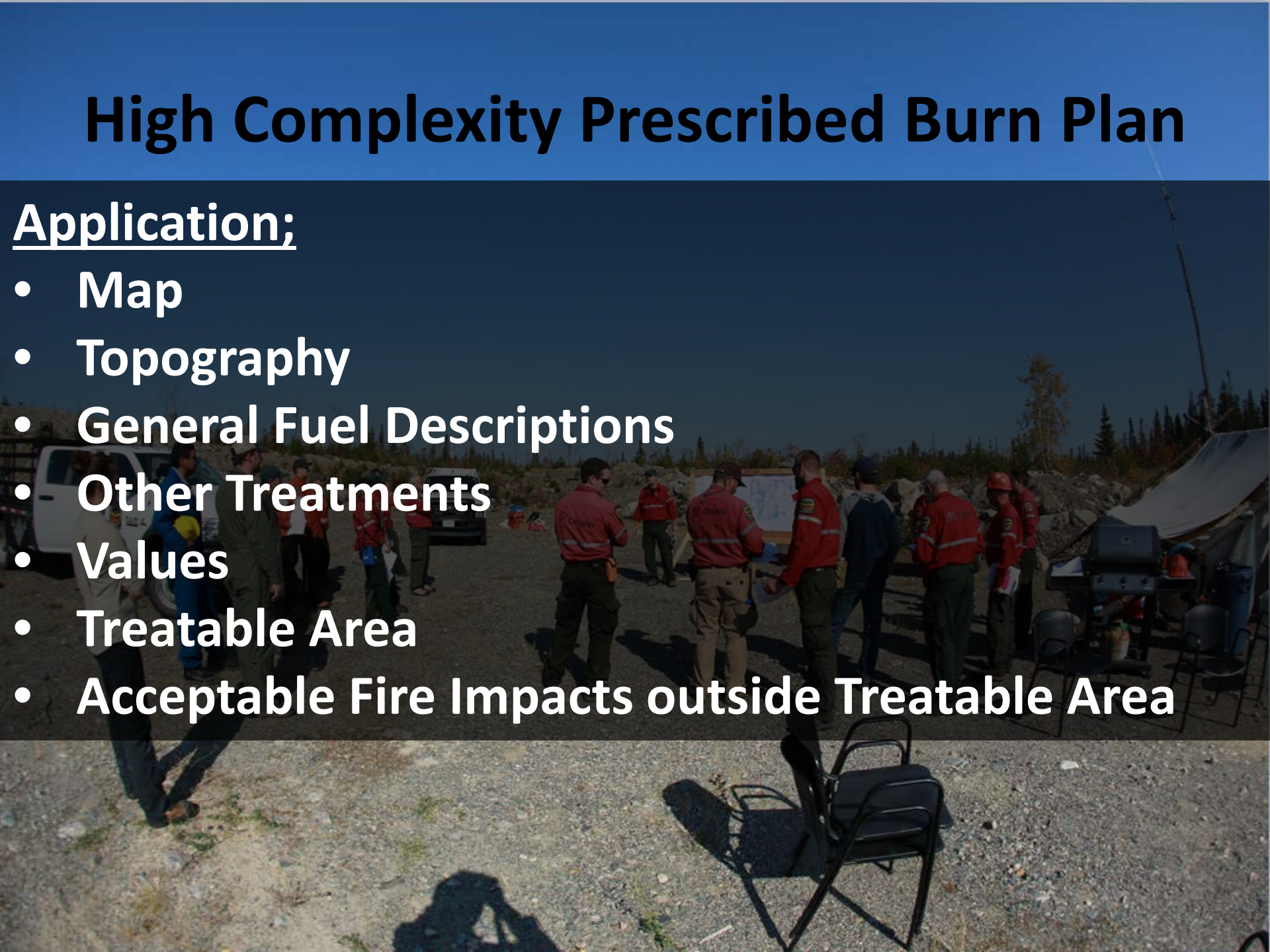


Table 1: Prescribed Burn Planning and Approval Schedule

Dated back from earliest possible ignition date

Activity	Low Complexity	High Complexity
Submit application	6 months	9 months
Application approved/rejected	5 months	7 months
Plan complete/approved by the burn proponent and submitted to OMNR	60 days	75 days
Plan Approved by Fire Mgt. Representative	45 days	60 days
Plan Approved by OMNR Senior Manager	30 days	45 days
Plan Approved by Fire Program Manager	n/a	30 days
Plan Approved copy available at District or Park Office	30 days	30 days
No additional major revisions or amendments	14 days	14 days

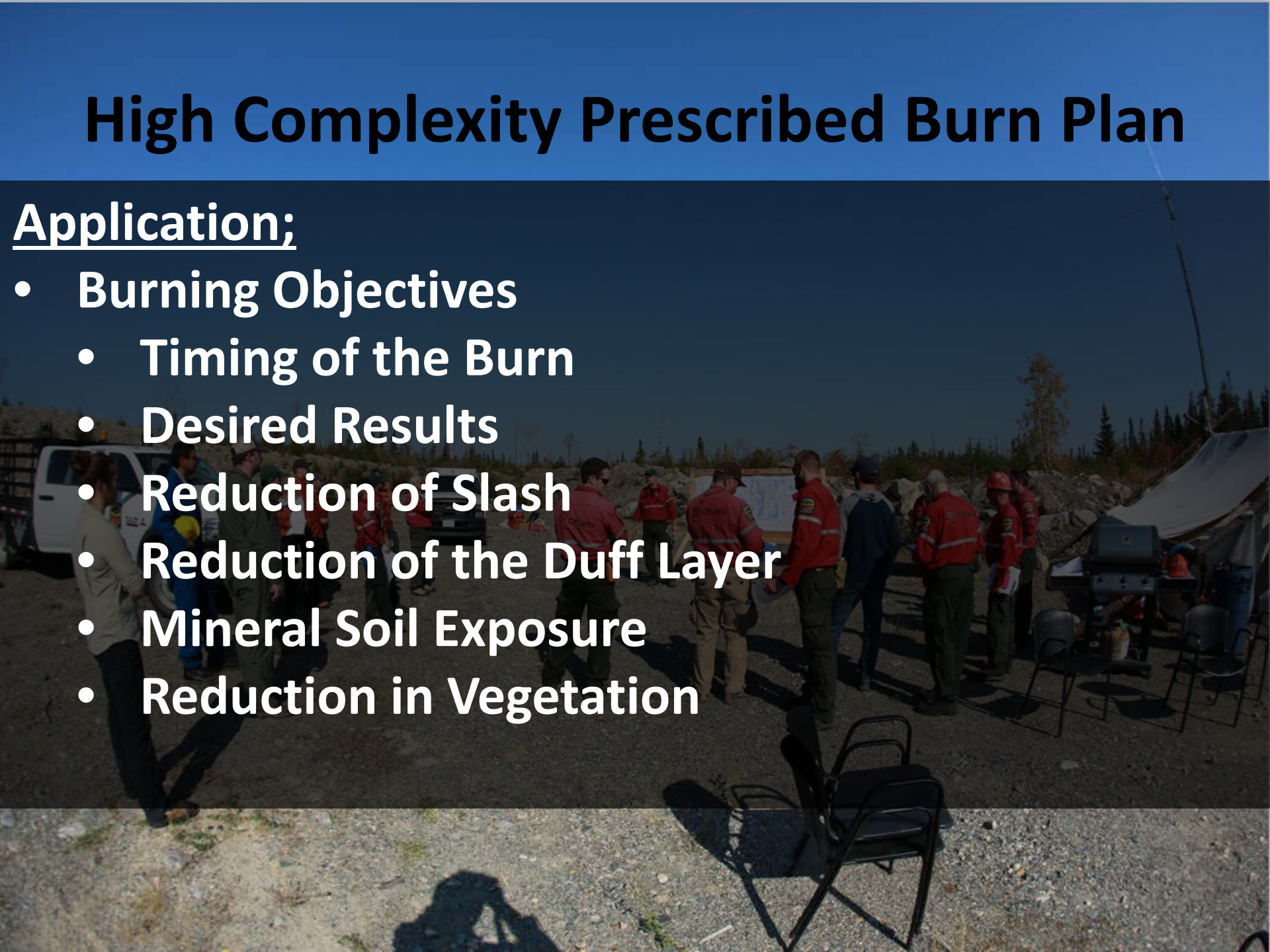
High Complexity Prescribed Burn Plan



Application;

- Map
- Topography
- General Fuel Descriptions
- Other Treatments
- Values
- Treatable Area
- Acceptable Fire Impacts outside Treatable Area

High Complexity Prescribed Burn Plan



Application;

- Burning Objectives
  - Timing of the Burn
  - Desired Results
  - Reduction of Slash
  - Reduction of the Duff Layer
  - Mineral Soil Exposure
  - Reduction in Vegetation

Part 1 of 3
High Complexity Prescribed Burn Application Approval

Signatures and dates **must** follow in the order that is laid out below. Once you have approved, forward the application and this approval sheet to the next person on the list. Names on the left side column must be typed or printed.

Domtar Pulp and Paper Products Inc.
David Cobb
Burn Proponent:

_____
Signature

_____
Date

Randy Crampton
Fire Management Representative

_____
Signature

_____
Date

Graeme Swanwick
District Manager

_____
Signature

_____
Date

Allan Willcocks
Regional Director

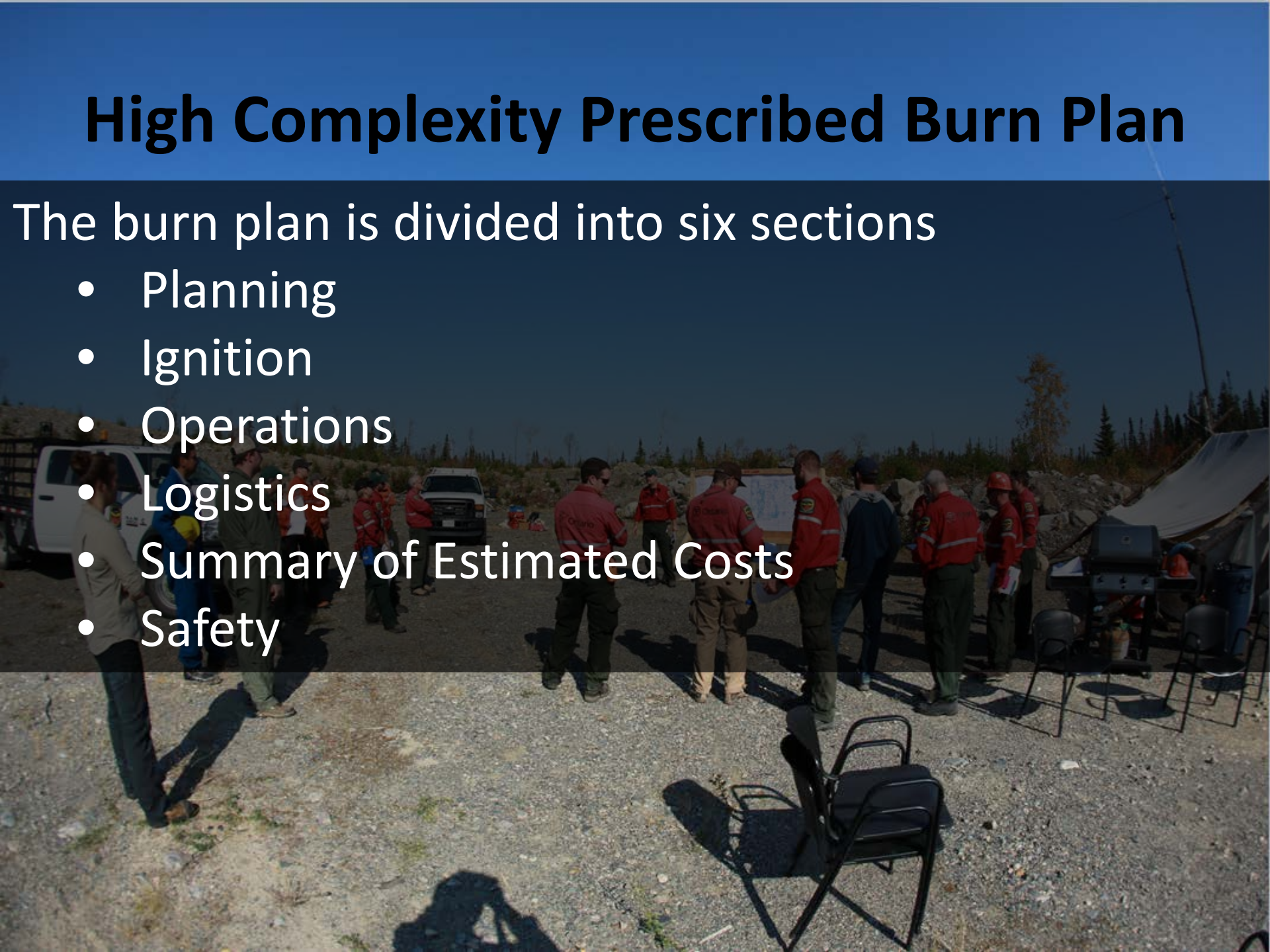
_____
Signature

_____
Date

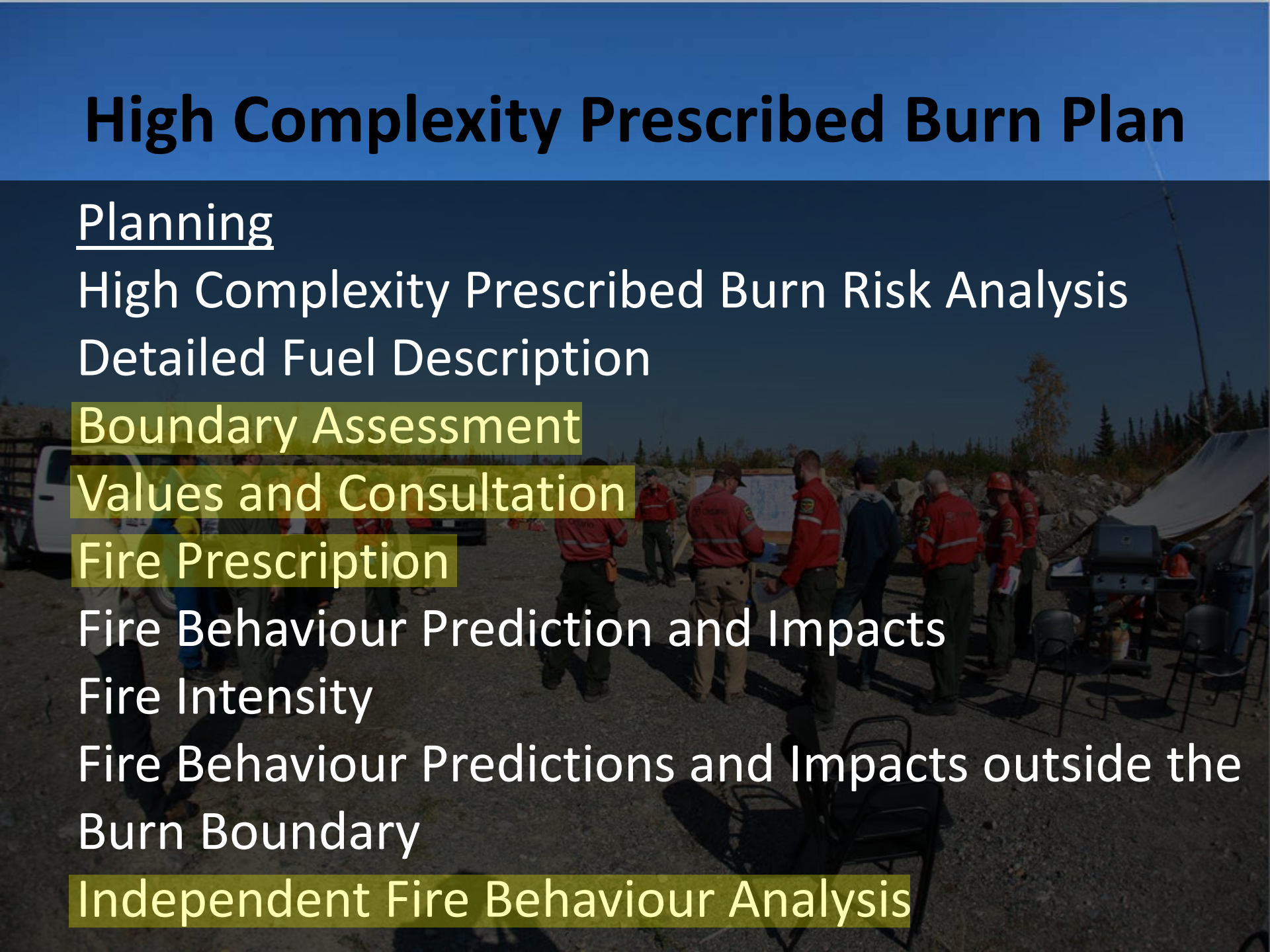
High Complexity Prescribed Burn Plan

The burn plan is divided into six sections

- Planning
- Ignition
- Operations
- Logistics
- Summary of Estimated Costs
- Safety



High Complexity Prescribed Burn Plan



Planning

High Complexity Prescribed Burn Risk Analysis

Detailed Fuel Description

Boundary Assessment

Values and Consultation

Fire Prescription

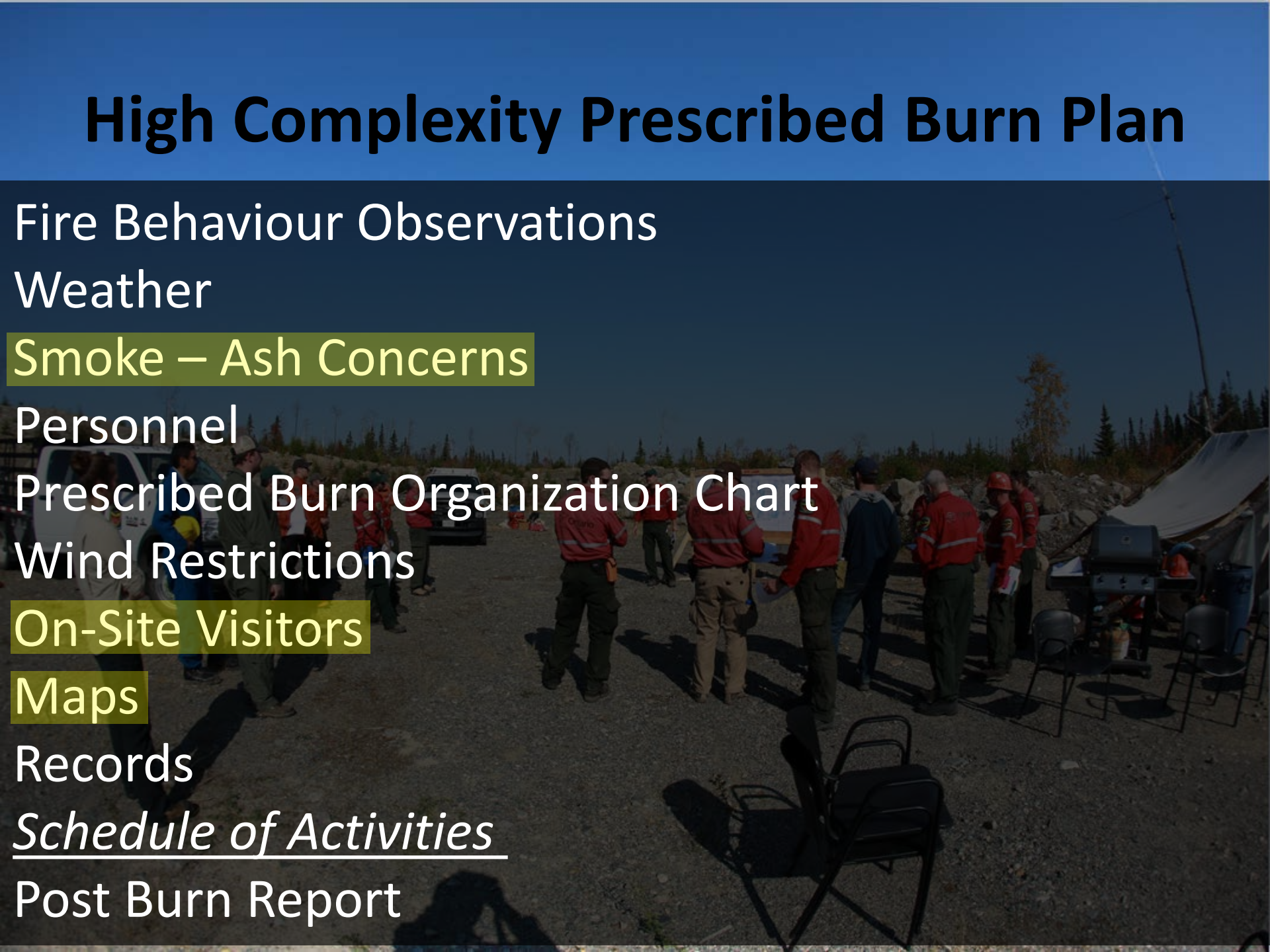
Fire Behaviour Prediction and Impacts

Fire Intensity

Fire Behaviour Predictions and Impacts outside the Burn Boundary

Independent Fire Behaviour Analysis

High Complexity Prescribed Burn Plan



Fire Behaviour Observations

Weather

Smoke – Ash Concerns

Personnel

Prescribed Burn Organization Chart

Wind Restrictions

On-Site Visitors

Maps

Records

Schedule of Activities

Post Burn Report

Activity
PB Application Submitted
Boundary Assessments
Final PB Plan Submitted
Plan Approved by Fire Mgt. Representative
Plan Approved by OMNR Senior Manager
Response and Operations Manager Approval
Pre-Burn Plots
Establish Mixing Site
Establish Staging Area
Communications Established
Letters to interested parties
Confirm safety arrangements with camp owners
Contact Lac Seul First Nations
Phone Calls to Interested Parties (MOL etc)
Newspaper Ads
Media Advisory
NOTAM
Roadblocks Setup
Independent Fire Behaviour Analysis
Briefing Area Setup
Request Weather Technician
Request Special Weather Forecast
Helipads Established
Values Protection Setup
FFSE Pre-positioned
Boats Pre-positioned
Flash 21 and 100LL delivered to Mixing Site
HeliTorch and PREMO Prepared
Project Area Cleared of People
Ignition Approval
Notification of Burn
Debriefing
Post Burn Report

Part 2 of 3
High Complexity Prescribed Burn Plan Approval

Note to Signatories: Ensure that Parts 1, 2, 3 and the application are appended to the front of the PB plan. An outline of your responsibilities for plan review can be found in the "Prescribed Burning Operations Policy" FM: 2:10

Signatures and dates **must** follow in the order that is laid out below. Once you have approved, forward the plan and this approval sheet to the next person on the list. Names on the left side column must be typed or printed.

Domtar Pulp and Paper Products Inc.
David Cobb
Burn Proponent

_____
Signature

_____
Date

Randy Crampton
Fire Management Representative

_____
Signature

_____
Date

Graeme Swanwick
District Manager

_____
Signature

_____
Date

Dave Cleaveley
Fire Program Manager

_____
Signature

_____
Date

Part 3 of 3
High Complexity Prescribed Burn Ignition Approval

Signatures and dates **must** follow in the order that is laid out below. If any boxes are checked "No", ignition cannot proceed. Names must be typed or printed

Regional Duty Officer

PB onsite review complete and submitted to Director AFFM within 4 days of ignition ☐Yes ☐No

Ignition approval received from Director AFFM ☐Yes ☐No

Conditions:_____

_____

_____

_____

If ignition is conditional, is it in the approved window? ☐Yes ☐No ☐N/A

_____ _____

Regional Duty Officer Signature

_____

Date

_____ _____

Regional Executive Officer Signature

_____

Date

Fall 2013 Attempt to Burn

Required Weather Indicies;

FFMC	WD	WS	ISI	BUI
83-90	0-360	0-20	3-7	25-45

- AFFES will not ignite a blowdown area prior to September 15th
- Wet weather kept us below our prescription
- Project bumped ahead to the fall of 2014


3


14:32


14:37

14:47


14:52


14:52


14:57


15:00


15:05


15:05


15:28


15:32


15:36
3


15:56


16:01
3


16:04


16:17


3


16:43
3

Results

Block 1

- Achieved better than expected results given the limited continuous fuel.
- Good consumption in blowdown, no spread in standing timber even on north side with significant slope.

Block 2

- excellent overall consumption, no spread in standing timber.

Results

- The burn was executed as planned and the objectives as outlined in the plan were met. A ground assessment was done on the Sept. 29th; the post burn data collection was completed October 27.

Results

- Material that was “wrist sized” or less was removed from both Block 1 and 2 and at least 20% of the coarse fuels were removed and in some areas up to 30% removed
- Duff pins located in Block1 and Block 2 indicated very little duff reduction


2014/09/29

Project Completion

2016 Tree Plant:

146,545 black spruce and jack pine planted in blocks 1 &2

Block 2 had jack pine natural regeneration

Challenges during plant:
Access
Safety

Actual Costs and Sources

Fund Source	Actual Contributions
FFT	$141,910
SAR	$22,076
Applicants	$65,287
Total	$229,273

Total area burned and planted – 220 ha
Cost - $1,042/ ha

PB Challenges & Successes

Pros	Cons
Good consumption of fuels	Weather Conditions
Tree plant conditions	Long planning schedules
Land returned to production	
FFT multi year funding program	
Great cooperation with partners	


Questions?