

**Minutes of Spring
WFORG Advisory Committee Meeting
March 21, 2006**

CFS, Edmonton

In attendance:

FERIC

Alex Sinclair	Rob Hyslop
Marv Clark	Jim Dunlop
Ray Ault	Wally Born
Greg Baxter	Colin Cameron
Dave Schroeder	Chuck George
Gary Dakin	Rich Just
Rory Thompson	Susan Corey
Dave Patterson	Mike Guterson
Sharad Karmacharya	Vince Eggleston
Wally McCulloch	Jen Beverly
	Mark Coolen
Terry Dixon	Jeff Berry
Ted Szabo	Kina Choe
Warren Kehr	Kevin Timanson
Brent Schleppe	Terry Kennedy
Bruce MacGregor	Kim Chell
Con Dermott	Rick Pederson
Tanya Letcher (NP)	
Mark Campbell	
Margriet Berkhout (SRD)	

Meeting called to order at 0833

Marv Clark began with introductions of the group. Sharad Karmacharya also introduced as the newest FERIC researcher and is responsible for the Fire Detection Project. Ray Ault provided some background on Sharad.

Overview of Projects.

1. Saskatchewan Community Wildfire Risk Assessment: Kris Johnson – presented by Ray Ault. Purpose of project is to identify and rank communities in Saskatchewan at risk to wildfire. Developed a methodology and using Pinehouse, SK as a the pilot project community. Also developed a ‘How to’ manual for fuel management for the boreal environment. Ray also presented the Cameco Wildfire threat assessment that is specific to a number of mines in northern Saskatchewan.
2. Linear Disturbance (Greg Baxter). Seven activities presented.

- Grass burning program – mowing trials
- Photoguide for assessing grass fuel loads
- Less flammable species research
- Quick deployment kit for wildfire data collection
- CN – Directed research from Provincial settlement
- BC Transmission Corporation directed research
- Grass fire breaching model: 3 versions available on website

3. Fuel Treatments (Dave Schroeder)

Dave began by reporting that this project differs from Dave Pattersons due to scale. This research is focused on the small scale, whereas Dave Pattersons is at a landscape scale.

Winter Update

- Lodgepole pine ignition probability – final revisions
- Windthrow considerations report – complete and on web

Presented Updates on the following projects:

- Mt. Nestor
- Lost Creek – 5-year project \$152,000 funding. Fuel management work.
- Jasper NP – surface fuel reduction burns
- NWT – a number of fuel management burns
- Calling Lake – finish ignition testing if weather cooperates
- Meadowlands Creek – two cabins to burn on slope.

4. Cost and Benefits of various debris treatments (Greg Baxter)

This is a continuation of the debris management project. Looking at 4 factors (fire hazard, wildlife suitability, cost and regeneration potential) of seven debris treatments. Have completed the fire hazard and wildlife suitability components and will complete the final two this summer. Fall completion date.

5. Cost of Fuel Treatments (Dave Schroeder)

Have looked at the data collected to date on fuel treatment costs and this led to designing a new methodology (applicable for mulchers). Productivity will be based on site factors and treatment effectiveness.

Updated group on:

- Williams Lake fuel management project
- Lost Creek fire research
- Jasper NP
- Foothills WMA
- Mt. Nestor

6. Smoke Detection (Sharad Karmacharya)

2005 Proposal had two purposes:

- To determine the potential for integrating new wildland fire detection technologies/ systems in Alberta's forest protection program
- To develop a business case for detection program

Funding from SRD and Alberta Innovation and Science.

- Two more towers and potential for one at Chisholm and in BC.
- Use Firenet and Supernet to move data.
- Also look at technology developments, communication options, alternative uses and produce a business case.
- Wildland Fire Detection Workshop June 6-8, 2006 in Hinton (see website for details).

Q) need to look at parts and service for PAL system – not common here.

Q) Is Firenet up and running – can we use in Willmore? Yes.

Comment – check with BC about Olympic Venue monitoring for cameras.

7. Infrared Scanning (Ray Ault)

Built grid and tested high altitude aircraft. Looking at helicopter scanning now. Will be an aspect of Workshop in June (Detection – June 8).

Study Tour to be undertaken at end of March – to see Boise, FLIR, Fireball IT, Ram Systems. Objectives of tour:

- Develop a standard method for data collection for handheld and mounted systems
- Data transfer options
- Fire ops integration
- Develop performance measures
- Incorporate results into Workshop

Report by BCFS 'Exploratory Research on Handheld Thermal IR Cameras' to be released soon.

Q) Grid – how many tests? 3 – one Co. passed easily and another failed twice. Grid can be used for RW tests and the US has shown interest.

8. All Terrain Vehicles (Greg Baxter)

Completed on ride with an ATV equipped with an insulated exhaust system. This ride produced positive results, but is only one test of the system. Plans to test the system with two more rides – one on the route travelled earlier by FERIC (House River fire ignition location). Will observe temperature data and how system is affected by muskeg.

9. Log Deck Protection (Dave Schroeder)

Will be testing log deck protection measures (foam, gel, water) in the NWT and on large debris piles along with Alpac.

Q) What is the life span of gel? A few hours, but can be re-hydrated (for up to weeks).

10. Sprinkler Update (Ray Ault)

Will continue to use sprinklers to protect structures in experimental fires. Will also work with Forintek to test outer sidings and wood products.

11. FireSmart and it's influence on the AAC (Rory Thompson)

Twelve communities chosen for study – all in green zone. Provided examples of Wapiarous (near Rocky) and Crowsnest area (a linear example). Looked at the influence of FireSmart on the 2 and 10 km radius around towns and determined the percent AAC reduction due to FireSmart activities.

12. Prescribed burn fuel sampling handbook (Ray Ault for Marty Alexander)

Remaining tasks:

- Incorporate fuel bed measurements (duff)
- Develop web-based spreadsheet for data entry.

13. Air Operations (Wally McCulloch)

Review of some work completed in 2005:

NWT Community Protection Project

- Retardant Drop Evaluation (3D Grid)
- Terra Torch Evaluation
- Fire Gel Exploratory Research (Martin Mars, ground based aircraft, RW)
- Infra Red Grid Trials
- 802 Drop Testing
- California DF Gel Evaluation (good success in grass/chaparral; no environmental concerns)
- Marana Drop Grid (Arizona) – retardant and gel tests. Grid 0.5 km in length and 100 m wide. Footprints of drops produced. Has all data and video from project.

Q)What coverage level were you after with the 802 drop tests. Level 4 – so came close with the floats.

Comment – FERIC will only look at products that have been approved by MTDC.

Q) Was there a cost-benefit done at Marana? NO – just drop patterns were looked at.

2006 Projects

- 3-D Grid literature search
- develop and test 3-D grid
- operational evaluation of gels use – contract basis
- additional 802 tests

14. Impact of wildfire on powerlines (Ray Ault)

Literature review and report completed by an engineering student at the U of A. Pointed out there is little quantitative data on the subject. Empirical data suggest steel structures not at risk. Aluminum towers should be tested to determine response to radian heat. BCTC 'fuel buffer zone' should be re-calculated.

This report has been completed but has been sent to BCTC for comments and then will be released.

Q) any work done on insulators/conductors as they fail at 90°C. Little information is currently out there.

Comment – BCTC – no fear of tower failure – but concerns over line sag when heated. BCFS may re-visit their protection agreements.

15. Passive Land Base (Dave Patterson)

Purpose of the work:

Assist ASRD in development of a Strategic Plan to develop a Landscape Fire Smart capability

- Identification of knowledge gaps that need to be addressed to enable Fire Smart Landscape Management
- Identification of Forest Industry needs to submit Annex 3 of the Alberta Forest Management Standards
- Simultaneous development of biomass utilization industries

Bibliography – 2500 references. Draft copies available. Will organize into subjects.

Anchor chain felling of black spruce discussed.

Bio-industry – a rapidly developing field.

Q) Is there a process to maintain and update database as it is a growing field? Yes – will be a living document.

Q) Bio-energy critical to fuel management. Need to quantify the quality and quantity of fuel available.

Comment – Alberta working on a Fibre Road Map – to understand and map out life of the fuels.

Firewood industry increasing in northern states. Debris bundler used in Europe.

Ownership of debris is with the FMA's – this will have to be taken into consideration.

This is not a problem in Europe where forests are privately owned.

Reality – bioproducts do not move quickly – there is a lot of talk, but little action.

Summary of Reports on the Web

- Log Deck Protection
- Identifying petroleum fuels that mix with Petrol-Jel
- Terra Torch
- Trip report California
- Trip report Marana

- Windthrow
- Grassland fire breaching model
- Literature review – treatments to reduce risk of wildfire spread
- Alberta Prescribed burn fuel sampling handbook
- Ignition probability for thinned lodgepole stands
- Water tank report
- Evaluating ignition potential from ATV
- S 64 Aircrane – spread sheet will be re-done; tough to replicate methodology.

New Projects from 2005 Fall Advisory Meeting

- Western Air Command. This will be discussed following meeting with Jeff Berry (BCFS) to determine direction of project.
- Remote Communications – will provide a brief report on communications and update as technological advances take place. Alberta has used repeaters for cell phones, but these have become jammed during fires – also creates isolation of information when sometimes information should be out to the masses. John Flannigan of BCFS a contact on this.
- Fly-in equipment – can start with BCTC and go from there. Output will be a table describing potential equipment, specific tasks, safety considerations, cost and productivity and what aircraft are capable of transporting the piece of equipment.
- Drinking Water Options – have not started this project yet. Will begin project in early April.

Next Meeting: September 28, 2006. Location TBA.

Meeting Finished 12:05