



Energy, Mines and Resources

Ketza Burn Timber Harvest Plan



FOREST MANAGEMENT BRANCH

A handwritten signature in cursive script, appearing to read "Greg Cowman".

Submitted by
Greg Cowman, Area Forester
Forest Management Branch

Date

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A handwritten signature in cursive script, appearing to read "Patrick MacDonell".

Approved by
Patrick MacDonell, A/Director
Forest Management Branch

Date

A handwritten date "July 11/11" in cursive script.

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Executive Summary

This Timber Harvesting Plan (THP) has been prepared to meet the requirements of the new Forest Resources Act (FRA) and implementation of the legislation on January 31, 2011.

Under the new legislation a THP is required prior to the issuance of any timber harvesting licence or forest resources permit > 25 m³. (FRA, Section 29(4)(ii).)

The Ketza Burn THP identifies fuelwood harvesting opportunities in one of several areas where fuelwood harvesting has occurred historically in the Region.

The THP identifies roughly 25 hectares of operable ground with an estimated salvageable volume of 1,200 m³. Future development of another large area of salvageable timber may be considered if economically feasible.

The THP sets targeted operating goals for the assessment of forest harvesting applications so that cumulative effects of multiple licences can be addressed.

All applicants for timber harvesting will be required to meet the submission requirements of the new legislation (FRA, Sec19(1)). The applications for harvesting licences require notification to the affected First Nation and public in the area of the application. The First Nation and public may make representations to the Branch Director on the application for a period of no less than 30 days. (FRA, Section 18)

Applications that trigger a Yukon Environmental and Socio-economic Assessment require submission to the local Development Office in Watson Lake for public review prior to issuance.

1.0 Introduction

1.1 Background

Forest Management Branch (FMB) initiated an informal review of Forest Planning Areas during the summer of 2009. Contact was made with the local Natural Resource Officer, members of the Ross River Dena Council (RRDC) and Faro Town Council to gauge interest and determine historical use of forest resources at the local level.

During April of 2010, FMB contacted local wood cutters in both Faro and Ross River to review preferred harvesting areas and weigh future plans for business development in order to determine the size and scope of local harvesting to be included in the planning.

A follow up meeting was held with the Ross River Dena Council on April 13th, to provide information related to the new legislation that was being developed and the requirements for planning under the new Forest Resources Act. Discussions included a review of the overview maps with historical and new areas that were proposed for harvesting.

Maps of proposed harvesting areas were sent to Yukon Heritage, Archeology Branch and to Yukon Department of Environment with a request for comment and identification of values that may be impacted within the proposed harvest zones.

In May of 2010, a letter of notification was sent to Chief Jack Caesar of the Ross River Dena Council, informing the council that ground reconnaissance would be initiated in the immediate future and contact names were provided for any questions and inquiries.

In late June 2010, an FMB forestry team conducted ground and aerial reconnaissance of the proposed operating units to map areas, review potential or existing access, estimate volumes and perform ecological assessments of vegetation and soils and to note any potential conflicts or seasonal concerns that would restrict development.

On November 18, 2010, draft maps of the proposed fuelwood harvesting were presented at a regular meeting of the Ross River Dena Council. Comments from council and suggestions for further discussions with other stakeholders were noted and have been included.

A draft of the THP was prepared using information collected from conversations and meetings as well as the field reconnaissance.

Notification was provided to the public, First Nation and other stakeholders for review and comment during the period of May 20 to June 20, 2011.

This final THP incorporates submissions received during the review period and has been approved for implementation as a Forest Management Branch planning document.

1.2 Eco-region and Drainages

The Planning Area lies within the Boreal Cordilleran Ecozone, primarily in the Yukon Plateau-North Ecoregion. Along the western boundary it transitions to the Pelly Mountains Ecoregion.

Northern boreal forests exist at elevations up to 1500 m above sea level. White spruce in a matrix of dwarf willow, birch, ericaceous shrubs, and, occasionally, lodgepole pine forms extensive open forests, particularly in the northwestern portion of the ecoregion. Black spruce, scrub willow, birch, and mosses are found on poorly drained sites. Alpine fir and lodgepole pine occur in higher subalpine sections. Extensive discontinuous permafrost with a medium ice content is widespread decreasing to sporadic discontinuous permafrost along the southwestern edge of the region.

The THP area is about 50 km from Ross River in the Ketza River drainage. The Ketza River flows northerly into the Pelly River.

1.3 Socio-Economic Considerations

Ross River - Residents practice forest resource harvesting to support subsistence lifestyles and utilize timber as a domestic and commercial heating source.

This THP will allow the local fuelwood harvesting to continue under the new legislative regime in support of those who use and supply product for these identified purposes.

However small an impact this may currently be, economic development and diversification is a goal of Ross River. With support for planning and sustainable forest resource use, the opportunity to develop a larger economic base in forest management is presented.

2.0 Planning Area Identification

The Ketzá Burn occurred in 1994 and has seen salvaging of fuelwood timber by members of the community ever since. Some areas within the burn are still used for personal use fuelwood opportunities. The THP will establish operational goals and help to coordinate the salvage of remaining material in the burn.

Three small pockets of timber adjacent to the Ketzá Mine road are outlined in orange on the THP Map, Appendix B.

The targeted areas within the THP are about 25 ha with salvageable volume estimated at 1,200 m³.

Unit 1 is winter only access due to wet ground conditions between the operating area and the mine road. Units 2 and 3 are easily accessed from the Ketzá mine road during dry or frozen conditions.

During consultation it was proposed that area identified as future THP development be identified within this THP. Further field work will be required to identify operational boundaries, volume estimates and design a road into this area. Future development will be subject to the economic feasibility of developing access into the unit.

Refer to Appendix A for location and Appendix B for THP detail.

2.1 Ecosystem and Stand Composition

The existing stands are in early seral stage development following the fire disturbance of 1994.

Ground cover consists of grasses, herbs and forbs with brush and tree cover of willows, aspen and minor amounts of white and black spruce scattered throughout.

The topography is generally even on a gentle slope of <5% and south-westerly aspect.

Soils consist of fine to medium textured glacio-fluvial material capping coarse gravels at increasing depth. Moisture regime is generally mesic to dry on this upland site.

2.2 Wildlife

The THP area is located in the NW edge of the Finlayson Caribou herd winter range. and well outside the core winter range. As the area is a large burn, it is not likely that caribou would use this area for cover or foraging.

The area is used by forest species that prefer regenerating forest stands.

2.3 Biodiversity

The 1994 fire, a natural occurrence, is prevalent in this boreal natural disturbance zone. Since the fire disturbance the area has reverted to early seral stage vegetative cover consisting of grasses, forbs and herbs with a developing tree cover of willows, aspen and a minor component of white spruce.

Existing and proposed development will impact less than 1% of the burn area and salvage will focus on the larger diameter timber, both standing and down. Typically small diameter stems, tops and branches will be left on site as coarse woody debris.

Harvesting of green timber will not be permitted and regeneration, where established, will be protected during operations.

With natural processes dominating the majority of the burn area and the relatively small scale of salvage, biodiversity in the area should not be negatively impacted.

2.4 Riparian and Water Resources

The Ketz River is considered as fish habitat as it flows into fish bearing reaches located between the Robert Campbell Highway and the Pelly River, some 30 km downstream. Arsenic levels in the river from acid rock leaching inhibit fish breeding in the vicinity of the THP. (Local knowledge and Abandoned Mines, personal communication)

The Ketz River is more than 150 m and on the opposite side of the mine road from the proposed operations in Unit 1.

Proposed future development into Unit 4 will meet the riparian management standards outlined in the Timber Harvesting Planning and Operating Guidebook, (THPOG, 99) or future standards in place at the time of licence application.

2.5 Recreation and Visual Impact

The Ketz Mine Road is not a known tourist route and no other recreational areas exist in proximity to the Ketz Burn THP. The salvage of timber in this area will not impact recreational or visual values on the landscape.

2.6 Cultural Heritage and Archeological Sites

Heritage resource potential exists at the north end Unit 1 where the unnamed creek flows into the Ketzá River. (YG Heritage Overview, 2010) A surface resource assessment is recommended in this area for timber harvesting only. An archeological site assessment is suggested if there is road development within these areas. The area will be assessed according the recommendations and development proposed.

Ross River Dena Council provided comments on the area during consultation and expressed no concerns with the location and plans as proposed. Additional cultural information may be included at any time during the planning process and incorporated into final plans.

During forest operations any previously unknown heritage or archeological artifacts found or unearthed shall require the operator to cease operations in the vicinity of the find and report the find to the Natural Resource Officer and Yukon Heritage Branch for assessment.

2.7 Traditional Land Users

The THP is located within the Ross River group concession trap-line held by families of the Ross River Dena.

This THP does not hinder or take away First Nation rights as outlined in Section 43 of the *Forest Resources Regulation*.

2.8 Other

There are no higher level land use plans in the THP area and no other issues of concern related to forest resources use have been identified at this time. Information and issues brought forward during the planning and review process will be addressed in the final documents.

3.0 Harvesting Section

Applicants for timber harvesting licences and permits will be required to be consistent with the THP. Applicants may submit plans and maps outlining harvesting layout and road construction, products and any manufacturing details, seasonal constraints and how the goals and standards of this THP are being met.

Each licence application will be referred to the Ross River Dena Council and the public for review and comment for a minimum 30 days.

If the project is larger than 1000m³ or requires road building it may require a screening under YESAA, the project will need to be submitted to the YESAB Designated Office in Watson Lake.

3.1 Area and Volume Summary

The aerially mapped operating units of 25 hectares, outlined in orange on the THP map, indicate the approximate area where salvageable, commercially viable volumes of timber still exist. It is estimated that there is about 50m³ /ha for a total volume of 1200 m³ within Units 1, 2 and 3. Many other parts of the THP still have salvageable volumes in lesser quantity and concentrations.

Unit 4, indicated as future development was proposed as an area to consider during consultation with RRDC on the initial draft of the THP. Field reconnaissance for timber values, site conditions and access development need to be completed in order to address the economic viability of the unit.

3.2 Harvest Scheduling and Season

Harvest scheduling will be constrained by the ground conditions in areas applied for and submitted in cutting permit applications.

Units 2 and 3 may be accessed directly from the Ketzá Mine Road using 4X4, quad or skidoo during dry summer conditions or winter frozen conditions.

Unit 1 is restricted to winter, frozen conditions due to wet ground.

Unit 4 will require a road of about 2 km in length to provide access from the Ketzá Mine road. Ground conditions, unknown at this time, will dictate whether the road will be restricted to seasonal operations.

4.0 Access Management

Access development will minimize disturbance with narrow single lane (4m wide) roads. Grubbing material from construction as well as harvesting debris will be saved and re-spread across the road running surface upon completion of operations, decommissioning and closure of the road.

If seasonal or permitting conditions require, roads may be gated to restrict access to harvesting licence holders and only during the defined operational period.

All users of Forest Resource Roads constructed under this THP will be required to have a Forest Resource Road Permit. (FRR Section 60(2))

5.0 Monitoring Plan

Monitoring plans identified at this time include the administrative post harvest stocking surveys and review of operations to licence terms and conditions.

There is no research or scientific activity proposed for the monitoring and development of a formal adaptive management strategy for this THP.

6.0 References and Acronyms

Timber Harvest Planning and Operating Guidebook, Department of Indian Affairs and Northern Development, 1999. (THPOG)

Heritage Resources Overview Assessment Reports, Yukon Tourism and Culture, Heritage Resources Unit, Christian Thomas, 2010.

FMB – Forest Management Branch of the Department of Energy, Mines and Resources, Yukon Government.

FRA – Forest Resources Act

FRR – Forest Resources Regulation

RRDC – Ross River Dena Council

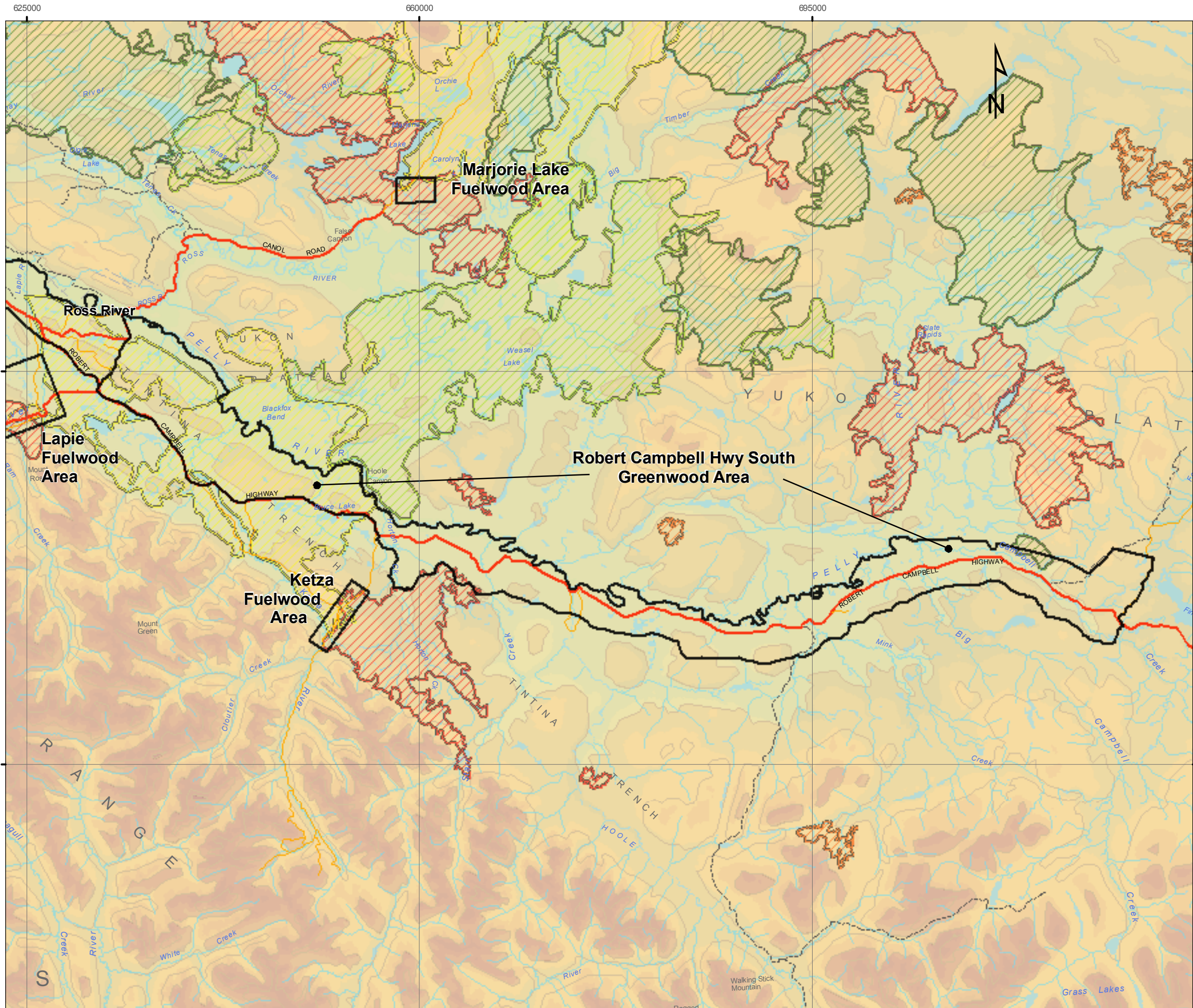
THP – Timber Harvest Plan

YESAA – Yukon Environmental and Socio-economic Assessment Act.

Appendix A

Overview Location Map

Map 2 – Ross River THP Overview



Faro & Ross River THP Overview - Map 2



Legend

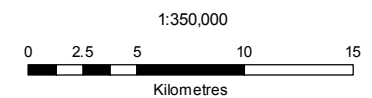
- | | |
|-----------------------------------|---------------------|
| Timber Harvest Plan Areas | Fire History |
| Road | Decade |
| Limited-use road | 1940 |
| Trail | 1950 |
| Cut line | 1960 |
| FN Settlement Land | 1970 |
| A - Surface and Subsurface Rights | 1980 |
| B - Subsurface Rights | 1990 |
| FS - Fee Simple | 2000 |

Date: 11 August, 2010
Projection: NAD 1983 UTM Zone 8
Contact Information: Greg Cowman, Area Forester, 456-3805

Digital Data Sources

1:250,000 National Topographic Database (NTDB) features downloaded from spatial data warehouse - www.geogratis.gc.ca. Her Majesty the Queen in Right of Canada, Department of Natural Resources. All rights reserved.

Digital Elevation Models (30 metre and 90 metre) provided by Yukon Government Geomatics spatial data warehouse - www.geomaticsyukon.ca.

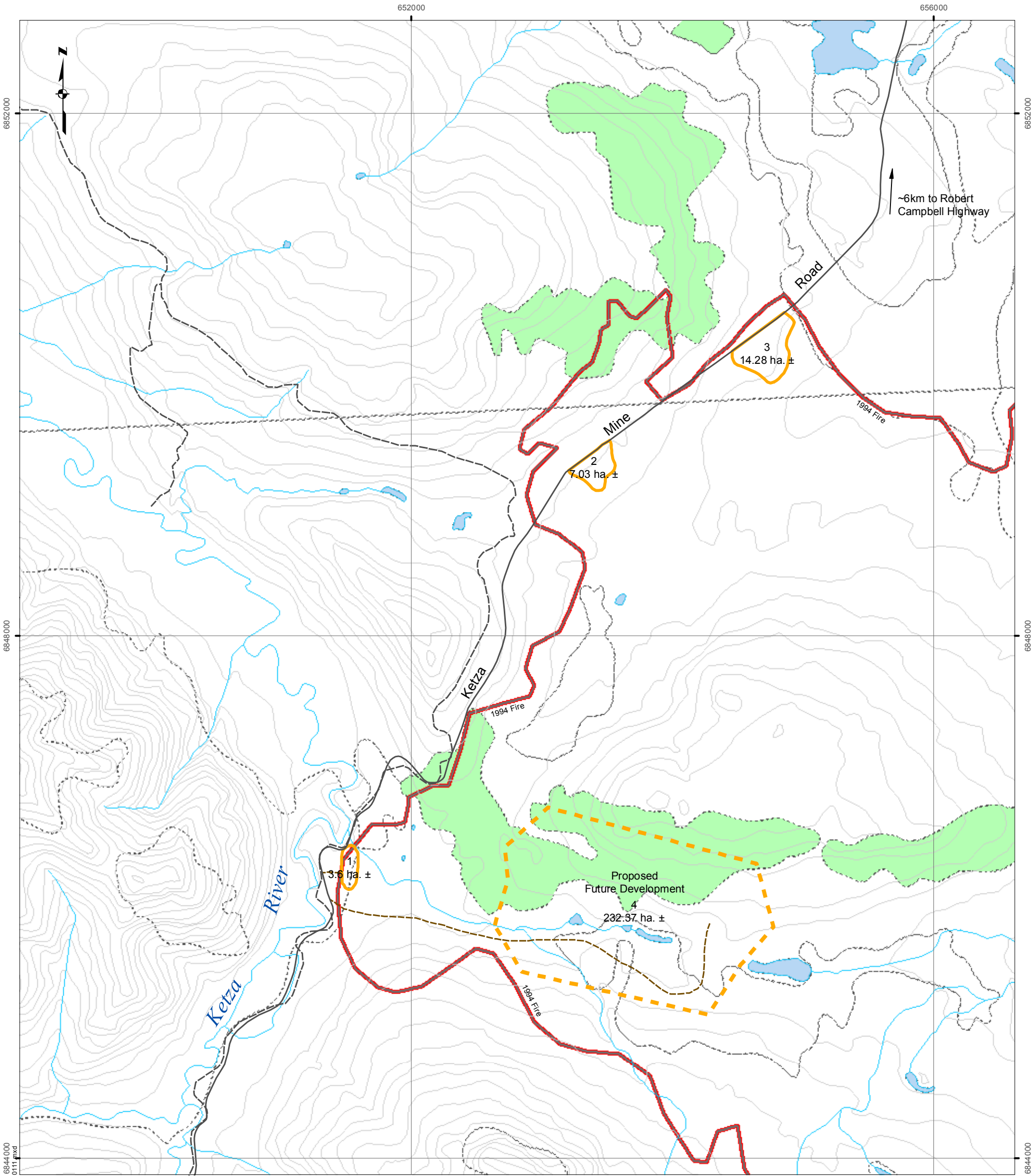


Yukon
Energy, Mines and Resources

**Forest
Management
Branch
Yukon Territory**

Appendix B:

1:20,000 Ketza Burn THP Map



Project Specific Features

- × Permanent Sampling Plots
-Proposed Access Route
-Existing Access Routes
- Planned Harvest Blocks
- Future Development
-Timber Harvest Plan Area
-Fire History

Administrative Features

-Surveyed Parcel
-Agriculture Tenure
-Land Disposition
-Notations
- First Nation Settlement Lands**
-Category A
-Category B
-Fee Simple

Forest Openings

- Patch Cut
- Partial Cut
- Patch Cut with Retention
- Landing
- Island

Forest Cover

- Non Forested
- White Spruce
- Lodgepole Pine
- Alpine Fir
- Black Spruce
- Balsam Poplar
- Trembling Aspen
- White Birch
- Larch

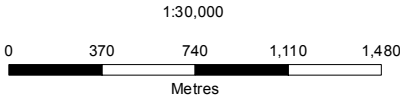
Area Forester: Greg Cowman
Contact: 456-3805
Date: July 8, 2011
Projection: NAD 1983 UTM Zone 8

Digital Data Sources

1:50,000 Canvec features downloaded from spatial data warehouse - www.geogratis.gc.ca. Her majesty the Queen in Right of Canada, Department of Natural Resources. All rights reserved.

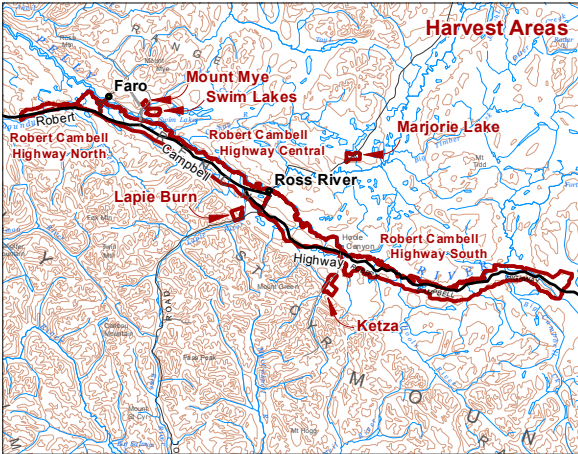
Original map design by EDI Environmental Dynamics Inc. Fall 2009.

Digital Elevation Models (30 metre and 90 metre) provided by Yukon Government Geomatics spatial data warehouse - www.geomaticsyukon.ca.



**Timber Harvest Plan Area
Faro - Ross River**

Ketza Burn



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Appendix C:
Representation Summary

Name of Plan	Ketza Burn Timber Harvest Plan
Prepared Date	July 5, 2011
Prepared by	Greg Cowman, Area Forester
Review Period	May 20 to June 20, 2011

Comments were received from:

- YG, Department of Environment

The following table contains a summary of the comments received, with responses to the comment and how the comment has been addressed.

Ketza Burn Timber Harvest Plan

July 2011

Topic	Name/ Organization	Comment	Consultation Comment Response	How comment/s have been addressed.
General				
Specific				
Section 2.2 Wildlife	Dept of Env	The proposed area is situated at the NW edge of the Finlayson caribou herd winter range. Because the area is in a burn, caribou are not expected to use the area; however, if caribou are observed during operations, it is recommended to relocate current operations to a region within the area where caribou are not observed.	It is administratively impractical for operators to move if caribou show up in their cutting permit areas. It is also likely, that most operators will have completed the harvesting of their fuelwood prior to snowfall when the Caribou would be in the area. For these reasons and the unlikelihood of conflict, mitigation is unwarranted	Identification of the caribou herd winter range has been added to Section 2.2

Appendix D:

Heritage Resources Overview Assessment Report

Heritage Resources Overview Assessment Report

Administration			
Permit Number	10-010ASR	Report Author	Christian Thomas
Permit Holder	Christian Thomas		
Heritage Resources Unit Contact	Ruth Gotthardt Yukon Archaeologist	Contact Information	867-667-5983 ruth.gotthardt@gov.yk.ca
	Christian Thomas Development Assessment Archaeologist		867-456-6102 christian.thomas@gov.yk.ca

Application			
Type	Ketza Fuelwood Area	Number	Harvest Areas 1, 2 and 3
Proponent	Greg Cowman Forest Management Branch Energy Mines & Resources	Contact	Box 2703, Whitehorse, YT, Canada, Y1A 2C6 ☎ 456-3805 greg.cowman@gov.yk.ca

Geographic Reference			
NTS Map sheet	105 F/09	Area (ha)	
UTM Lat/Long		Elevation (m)	1000
Ecoregion	Pelly Mountains	Map Attached	Figure 1

First Nation(s)			
First Nation(s)	Ross River Dena Council	Contact(s)	Lands and Resources Department

Survey Description			
Survey Date(s)	August 25, 2010	Survey Type	Overview Assessment
Survey Crew			

Management Summary
An overview assessment of the planning area has resulted in the determination of an area of elevated potential for the presence of heritage resources such as archaeological and historic sites. A heritage resource inventory and assessment is recommended for Harvest Area 1 that is adjacent to the Ketza River.

Archaeological Potential Methodology
Heritage resource potential was determined by identifying site presence indicators using resources including the Yukon Archaeological Sites Database, the Yukon Historic Sites Database, low resolution orthographic images, and spatial mapping of water courses, water bodies and wetlands.
Site databases were used to determine whether or not sites are located within the project areas or to

determine if sites are present in areas similar to that of the project. Orthographic images were used to determine locations of prominent topography suitable for the presence of heritage resources. Spatial data on the location of water bodies, watercourses or wetlands is used to define geographic areas or corridors that generally have higher potential for site presence. Heritage resource potential is determined by assessing project development areas that intersect with land that is within 100 m of a heritage resource indicator.

Overview Results

Known Sites: A review of the Archaeological and Historic Sites Databases indicates that no archaeological sites are located in the Ketza Fuelwood Area. It should be stressed that a heritage resource inventory has not been completed adjacent the area so the regional potential is not well understood.

Heritage Resource Potential: The northern end of harvest Area 1 is considered to have elevated potential for heritage resources. Harvest Area 1 is located adjacent to Ketza River at a confluence with an unnamed creek (Figure 1). A low resolution orthographic image (15 m pixels) suggests that northern portion of Harvest Area 1 is situated on an elevated terrace overlooking the confluence.

Harvest Areas 2 and 3 are considered to have low potential for the presence of heritage resources such as archaeological and historic sites.

Previous Disturbances / Exposures:

Potential Impacts

The project proposes to cut timber in Harvest Areas 1, 2 and 3 of the Ketza Fuelwood Area. Impacts to heritage resources can be characterized as surficial in nature and would negatively impact any resource on or above the ground surface such as historic structures, features or culturally modified trees. Rarely would subsurface resources, such as buried archaeological sites, be impacted by wood cutting. If new roads or graded landings are developed in areas of elevated archaeological site potential (Figure 1) those activities could impact subsurface heritage resources.

Recommendations

A heritage resource inventory is recommended for Harvest Area 1 of the Ketza Fuelwood Area. If the project involves wood cutting (only) then a surface resource assessment is recommended. If new roads area to be built and archaeological site assessment is recommended. Any sites discovered as a result of future assessment projects shall be managed to territorial standards.

Signed:



Christian Thomas, M.A. (Anthropology) B.A. (Archaeology)
Development Assessment Archaeologist
Heritage Resources Unit
Cultural Services Branch
Department of Tourism and Culture
Government of Yukon



867-456-6102



867-667-5377



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P.O. Box 2703, Whitehorse, Yukon Y1A 2C6

Map

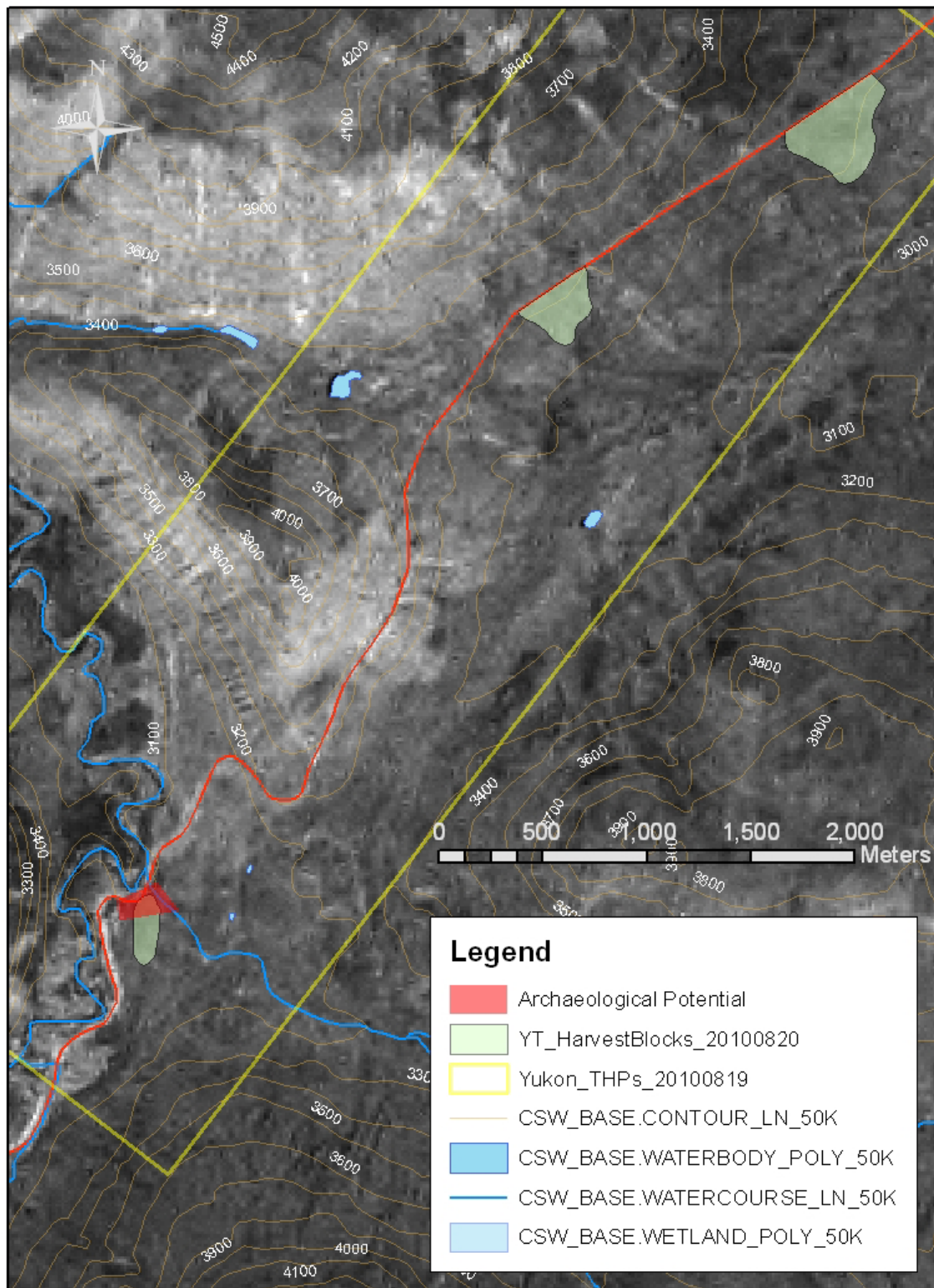


Figure 1: Orthographic image of study area showing areas of elevated archaeological and historic site potential. Quad 105 F/09.