

CHAPTER 4
APPENDIX 4F

**Activities Involving Other Publics -
Consultation Materials**

TABLE OF CONTENTS

4F-1.0 ACTIVITIES INVOLVING OTHER PUBLICS 1

4F-2.0 INVOLVEMENT WITH INTERESTED PUBLICS..... 1

4F-2.1 DECEMBER 2, 2008 1

 4F-2.1.1 Meeting Notes.....1

 4F-2.1.2 Materials.....6

4F-2.2 OTHER COMMENTS 7

4F-3.0 THE WHITEHORSE OPEN HOUSE 8

4F-3.1 INVITATION..... 8

4F-3.2 MATERIALS 11

4F-1.0 ACTIVITIES INVOLVING OTHER PUBLICS

Consultation sought feedback from various non-government organizations and well as private citizens. For the most part, these potentially affected or interested parties were contacted with the newsletter, although efforts were made to contact people that were likely to have concern or interest in the Project, such as lease holders around Mayo Lake, placer miners, ENGOs and other organizations. An open house was also held in Whitehorse to inform the public outside of Mayo about the Project.

4F-2.0 INVOLVEMENT WITH INTERESTED PUBLICS

Several non-government organizations with potential interest in the Project were contacted to see whether they had interest in being involved in consultation activities. Among the organizations contacted were the Yukon Conservation Society (YCS), CPAWS, the Wilderness Tourism Association of the Yukon, Silver Trail Tourism Association, and the Silver Trail Chamber of Commerce. Of these organizations, only YCS expressed interest in meeting with Yukon Energy.

4F-2.1 DECEMBER 2, 2008

4F-2.1.1 Meeting Notes

Meeting Report

Title:	Mayo B Project – Proposed Project Briefing with Yukon Conservation Society		
Attendees:	<p>Yukon Conservation Society: Anne Middler, Energy Coordinator Nick De Graff, YCS Board Member</p> <p>Yukon Energy: Hector Campbell Travis Ritchie Ben Schonewille (EDI – Aquatics) Nancy LeBlond (InterGroup)</p>		
Meeting Location:	YCS Office	Whitehorse, Yukon	
Date:	December 2, 2008	Minutes status:	FINAL
Author:	Nancy LeBlond	Phone:	204-942-0654
Meeting Purpose:	Introduce the Mayo B Project and determine whether the attendees have any key perspectives or issues regarding the proposed development.		
Discussion:	Introduction and Rationale		

Hector thanked YCS for the opportunity to speak about the Mayo B Project as one of the interested stakeholders in the Project. Yukon Energy has started their Public Consultation on the Project as part of an Executive Committee submission filing to YESAB in Q1 of 2009 to meet an estimated In Service Date of late 2011. YEC will also require a Water Board license and likely a review by the YUB.

Hector noted that YEC prepared a Resource Plan in 2005 and load growth estimates are re-visited annually to make adjustments in the planning process. The Resource Plan identified enhancement projects to existing facilities (i.e., Mayo B), as well as new opportunities such as geothermal, wind and Demand Side Management (DSM).

- Geothermal would use deep steam, but is years away, with a 5-10 year development horizon at minimum. Such a project would require substantial load growth as it is expensive. Deep geothermal wells require significant geotechnical work to confirm the right location for the wells to be drilled and temperature and flows rates to be proven before a feasibility assessment can be completed.
- Wind and DSM opportunities provide a small amount of needed power to address long-term load growth. DSM can only meet a minor component of the forecast energy demand. Anne indicated more effort should be spent on DSM to find ways of making DSM profitable – set goals of greater efficiency and reward those who achieve those goals. Hector advised that the YUB disallowed the costs related to a DSM program conducted in the 1990s. YEC must take direction from the YUB and YTG in this regard.
- In answer to a YCS question: large scale hydro is not on the near-term planning horizon as interconnection with the BC grid is required to enable the firm long-term power sales needed to pay for such a project. Large scale hydro in the Yukon is expensive to build and has environmental impacts. Currently, there is no economic rationale to proceed with these types of projects.
- In response to a YCS question on additional back-up projects including run-of-river, Hector indicated that other enhancement projects are being investigated. Mayo B is the best option due to the existing hydro plant infrastructure that would be used with the proposed new plant to generate almost twice the power due to the increase in head while using the same amount of water. YEC would need several smaller projects to match the capacity of Mayo B and most run-of-river projects do not generate winter power unless the water or energy can be stored elsewhere. Wintertime is the period of highest electrical demand in the Yukon.

Hector explained the driver for the Mayo B Project is load growth for both industrial and non-industrial customers. YEC has recently added Sherwood Copper as an industrial customer through the construction of Stage 1 of the Carmacks Stewart Transmission Project (CSTP). YEC has an obligation to service future customers and those customers are required to pay the costs to serve them. Future mines that YEC is planning for include Western Copper and

	<p>Alexco. Alexco is likely to be the next industrial customer in advance of Western Copper. Timing for when these new electrical loads come on-stream may change as the price of metals and the marketplace remains uncertain.</p> <p>Currently, Alexco is forecasting an ISD of Q1 2010 as they have their financing in place. Hector noted this mine has a life expectancy of five years; however, Alexco is also proving up reserves which may extend the life of the mine. YEC has two options to serve Alexco – burn diesel or complete Stage 2 of the CSTP and use the surplus on the interconnected system in the early years of the development. CSTP Stage Two has completed the YESAB assessment and approval processes; however, YEC must secure necessary permits from YTG and Selkirk First Nation. This is manageable by 2010.</p> <p>Yukon Energy is also proceeding with the 3rd turbine at Aishihik to generate more power with the same amount of water on the Whitehorse-Aishihik-Faro (WAF) electrical grid which could also be used, in part, to supply power to the Alexco mine once the two grids are interconnected.</p> <p>YCS enquired if Alexco could be served by surplus grid power without Mayo B. Hector indicated that initial start-up could be handled from surplus MD power in the summer; then the interconnected system (i.e. using some of the remaining surplus hydro from the WAF grid) could handle the load growth in the short-term to allow time for Mayo B to be constructed.</p> <p>Hector reiterated that no decisions have been made on the Project and planning and assessment work is on-going. He briefly reviewed the summer and fall geotechnical and environmental field work that has been carried out. YEC is looking at options for the capacity and operation of the new plant and the various environmental impacts associated with these options. Mayo B hydro energy would be used to supply new industrial loads and non-industrial load growth, which also continues to grow at about 5 GWh/year. This project is currently estimated to cost about \$100 million and will require significant financial contributions from industrial customers, YG and Canadian governments. YEC will need a second industrial customer (in addition to Alexco) such as Western Copper at 50 GWh/year to contribute to the project. This was done with Sherwood Copper when CSTP Stage 1 was completed as the mine paid for the full cost of the Minto Spur plus a contribution to Stage 1 of the line.</p> <p>Project Description</p> <p>Hector reviewed the physical components of the Mayo B Project:</p> <ul style="list-style-type: none"> • Tap into the existing intake structure with either a tunnel or penstock option to convey the water 3 km downstream to a new powerhouse to generate about twice the power. • Most of the water will be diverted to the new powerhouse; however,
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	<p>some flow will be maintained in the 3 km of river between the existing plant and the new one.</p> <ul style="list-style-type: none"> • The new plant will have a capacity to generate about 10-13 MW of power. • There will be no changes to the Mayo Lake Control Structure. This is different than what is described in the Newsletter due to updated engineering information. • YEC is considering a 1 meter draw-down of water on Mayo Lake. The Project Team has ruled out increasing Mayo Lake levels due to environmental impacts (including potential increased shoreline erosion). YEC is still assessing the benefits of increased bottom storage at Mayo Lake vs. potential environmental impacts; and balancing the flows and plant operation. Hector noted that using more than 1 meter of additional storage on Mayo Lake has a decreasing benefit and possible increased environmental impacts, thus is not being considered at this time. • The full license range of Mayo Lake storage would not be used each year. In dry years, YEC would not use the full range; in wet years, YEC would like to take advantage of an increased storage range to allow the lake to fully refill. <p>Chinook Salmon in the Lower Mayo River</p> <p>Ben Schonewille described the location of Chinook salmon spawning in the lower reaches of the Mayo River – based on this year’s field work and previous studies. EDI’s field season was built upon past work in the area.</p> <ul style="list-style-type: none"> • Zones 1 and 2 are productive rearing areas for salmon. • YEC is looking at water flows through Zone 2 to improve the productivity of the habitat and enhance the habitat where there is opportunity. A large portion of Zone 2 is a high-gradient canyon with little suitable spawning substrate material. • YEC has engaged an external senior salmon advisor, Karl Schiefer, to assist in determining project effects and effective fish related mitigation measures. • YEC confirmed that Chinook salmon will be a VEC. • Nick De Graff indicated that any impact on the salmon will be important to consider as this river is one of the last strongholds on the Stewart system. It is a very productive, but small part of the wider system. Nick asked about installing a fish ladder, and whether anything could be done at the tailrace. Travis indicated the key issue is whether a fish ladder is something you would ever consider doing due to other uses of the system; and that YEC is looking at options at the tailrace to improve habitat. <p>Mayo Lake</p> <ul style="list-style-type: none"> • Anne enquired about re-mobilization of silt with increased draw-down at Mayo Lake, and environmental impacts on whitefish, shorebirds and exposure of the littoral zones. Ben indicated they did detailed shoreline mapping for the littoral zones; plus bathymetry of the forebay was done by
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	<p>others. Overview assessments were completed on a number of tributaries to Mayo Lake.</p> <ul style="list-style-type: none"> • Lake whitefish spawning areas were located through a radio-tagging program where 16 lake whitefish were tagged. Half of the tagged fish were found to be spawning up Edwards Creek and into the Roop Lakes area – primarily outside the zone of influence of Mayo Lake fluctuation. • There is little existing age data on lake whitefish – only historic information on lake whitefish and lake trout in Mayo Lake. • Anne asked if YEC had any information on the natural lake level fluctuations. Hector indicated that past data is not available. • Anne asked what impact the increased draw-down has on power generation. Hector indicated this is currently being assessed and will be included in their YESAB Project Proposal. • Nick asked how one could cost out VECs. Travis responded it is a balance between environmental, social and economic values. Hector noted that the project is meant to displace diesel generation and reduce greenhouse gas emissions. • Nick indicated the following were positive measures under consideration by YEC: <ul style="list-style-type: none"> ○ Geothermal as a long-term initiative ○ Enhancement of existing projects rather than greenfield sites ○ Opportunities for improvements for Chinook salmon being an important element in the design of the Project. • Nick identified his concern over the 1 meter draw-down of Mayo Lake – this does not enhance the environment of Mayo Lake. Hector responded that YEC is considering operating rules that will govern the amount of time the lake's full storage range is being used; plus how the three hydro facilities on an interconnected grid can work together. Extensive modeling is on-going to address this issue. <p>General Questions:</p> <ul style="list-style-type: none"> • YCS: when will they be able to review the environmental field studies? <ul style="list-style-type: none"> ○ YEC: the information will be part of their YESAB filing. • YCS: what about the First Nation perspective? <ul style="list-style-type: none"> ○ YEC: YEC has met with NND during the week of Nov 24-27 to initiate formal discussions on the Project; YEC is holding two workshops this week and will continue to engage NND staff in the planning phase of the Project. NND members were also part of the environmental and heritage field teams. • YCS: what about consultation with the broader public? <ul style="list-style-type: none"> ○ YEC: the Newsletter has been distributed to a wide list of interested parties and posted on the YEC website. ○ Meetings have occurred in Mayo with the Village and the RRC, along with a community drop-in event (week of Nov. 26th). Additional meetings will occur in Mayo in the New Year. ○ One-on-one meetings with stakeholders in Whitehorse are
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	<p>being conducted.</p> <ul style="list-style-type: none"> ○ An Open House in Whitehorse in the New Year is being considered, with invitations sent to various groups, should there be sufficient interest expressed in having one. ● YCS: what is the benefit of the tunnel option? <ul style="list-style-type: none"> ○ YEC: Assuming adequate bedrock, the tunnel is a bit less costly and can be constructed quicker than a penstock and/or canal option. A tunnel also has fewer environmental impacts as it is all underground; and fewer constraints in terms of operations. A buried penstock is also preferred over a canal should the tunnel option be unfeasible. The seismic work recently completed will help define the bedrock profile. ● YCS: Nick indicated that in the US, low-impact hydro can achieve a green certificate for projects that enhance existing facilities (over greenfield sites). Nick will provide the website information to YEC. <p>Closing</p> <p>Hector thanked YCS for the opportunity to introduce the Mayo B Project and to hear YCS's interests in the Project. Meeting notes will be prepared and distributed for YCS to review before they are finalized.</p>
<p>Follow up required:</p>	<p>YCS:</p> <p>Nick will provide the website of low-impact hydro projects achieving a green certificate to YEC.</p> <p>YEC:</p> <p>YCS requested that YEC provide an analysis of power generation without the increased Mayo Lake storage range.</p>

4F-2.1.2 Materials

The first project newsletter was distributed at this time. See Appendix 4B-2.2.

4F-2.2 OTHER COMMENTS

The public was welcomed to submit commentary on the Project throughout the consultation process. This often occurred as a phone call or email which are captured in the Record of Personal Communications in Appendix 4G. Any written commentary is attached here.

Kris Pavlovich & Silke Wissner
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Y0B 1M0
867-996-2023
kpavlovich@northwestel.net

December 29, 2008

Re: Proposed Mayo Hydro Generation Enhancement Project

We would like to express several of our concerns over this proposal.

I was born and raised here and have been on Mayo Lake since I was a young boy. I have owned a cabin here since the 70's and spend a great deal of time at Mayo Lake. Since Dawson has been online, we have noticed that the high water and low water variations are more extreme. High water is longer and during the stormy part of the season (Sept. - Oct.) which is causing increased erosion.

We were at the cabin on Dec. 28, 2008 and observed water still running over the dam. There was a great deal of rain this summer which increased the level of the lake, but we noticed that the gates were not always open to allow water through even though water was running over the dam all summer. We are aware that plugged gates have been causing problems over the years and the water could not be controlled as it should be. We believe that these extreme water levels have prevented the shoreline from finding it's natural slope to settle. Will there be consideration in your Project Plan for rip-rap or some other method to remediate erosion along the shoreline of Mayo Lake because of the extremes in water levels?

We are also concerned about the proposal to revise the drawdown range from 2.5 metres to 3.5 metres. This would cause great difficulty for people to get their boats in and out of the water in the spring.

Our last concern at this time is our property at Mayo Lake. Because of the erosion of the bank, the existing buildings that have been there for decades are now of concern to lands as they are much too close to unstable ground. Although our titled property is still far enough away, we have recently been informed that our lease renewal has been rejected and we are required to move our buildings and cabin by June, 2009 at the latest.

Looking forward to your response to our concerns,
Kris Pavlovich & Silke Wissner

4F-3.0 THE WHITEHORSE OPEN HOUSE**4F-3.1 INVITATION**

Letters of invitation were sent to stakeholders in Whitehorse, including individuals with leases in the Mayo area with Whitehorse addresses. The letter was sent to the following list of stakeholders:

Mining interests and Placer Miners in Whitehorse

Aurora Mines Ltd
Suite 200, Financial Plaza, 204 Lambert St.
Whitehorse, YT Y1A 3T2

Kerry Minor
Box 32089
Whitehorse, YT Y1A 5P9

Danny Klippert
20 Tutshi Road
Whitehorse, YT. Y1A 3R3

Stephan Timothy Pyke
16 Harvey Place
Whitehorse, YT Y1A 5X6

Neil Vickers Regimbald
Box 31514
Whitehorse YT Y1A 6K8

Richard P. Rivest
36 - 12th Ave
Whitehorse, YT Y1A 4J6

J.P. Rivest
10 Hart Crescent
Whitehorse, YT Y1A 4R4

Helmut & Gabriele Wirfler
191 Rainbow Road
Whitehorse, YT Y1A 5H8

Government

Shirley Abercrombie
Energy, Corporate Policy and Communications
Energy, Mines and Resources
PO Box 2703
Whitehorse, YT Y1A 2C6

John Bowen
Department of Environment
Environmental Programs Branch
PO Box 2703
Whitehorse, YT Y1A 2C6

Dennis Cooley
Department of Justice
PO Box 2703
Whitehorse, YT Y1A 2C6

Lyle Dinn
Energy, Mines & Resources
Resource Planning and Policy
PO Box 2703 (K918)
Whitehorse, YT Y1A 2C6

Benoit Godin
Environmental Contaminants Section
Environment Canada, Yukon
91782 Alaska Highway,
Whitehorse, YT Y1A 5B7

Ruth Gotthard
Yukon Archaeology
Department of Tourism and Culture
PO Box 2703
Whitehorse, YT Y1A 2C6

Wally Hidingar
Department of Highways
Transportation Planning and Programming
PO Box 2703,
Whitehorse, YT Y1A 2C6

Kevin McDonnell
Environmental Programs
Department of Environment
PO Box 2703
Whitehorse, YT Y1A 2C6

Bob Holmes
Energy, Mines & Resources
Mineral Resources Branch
PO Box 2703
Whitehorse, YT Y1A 2C6

Colin McDowell
Director
Energy Solutions Centre
Energy, Mines, Resources
PO Box 2703
Whitehorse, YT Y1A 2C6

Nancy Hughes
Northern Conservation Division
Environment Canada
91782 Alaska Highway,
Whitehorse, YT Y1A 5B7

Cathryn Paish
Tourism and Culture
Tourism Product Development & Research
PO Box 2703
Whitehorse, YT Y1A 2C6

Dan Lindsey
Department of Environment
Fish and Wildlife Branch
PO Box 2703
Whitehorse, YT Y1A 2C6

Heidi Rumscheidt
Acting Director
Development Assessment Branch
Executive Council Office
Government of Yukon
Box 2703 (A-310)
Whitehorse, YT Y1A 2C6

Afan Jones
Parks and Conservation Areas
PO Box 2703
Whitehorse, YT Y1A 2C7

Myles Thorp
Energy, Mines & Resources
Forest Planning and Development
PO Box 2703 (K918)
Whitehorse, YT Y1A 2C6

Randy Lamb
Department of Environment
Environmental Affairs Section
PO Box 2703
Whitehorse, YT Y1A 2C6

Marg White
Energy, Mines & Resources
Land Use
Box 2703
Whitehorse, YT Y1A 2C6

Nathan Millar
Fish and Wildlife Branch
Department of Environment
PO Box 2703
Whitehorse, YT Y1A 2C6

Briar Young
Area Manager OHEB
Department of Fisheries and Oceans
100 - 419 Range Road
Whitehorse, YT Y1A 3V1

Non-government organizations

CPAWS

Executive Director

PO Box 31095

Whitehorse, YT Y1A 5P7

Council of Yukon First Nations

11 Nisutlin Drive,

Whitehorse, YT Y1A 3S4

Klondike Placer Miners Association

3151 B Third Avenue

Whitehorse, YT. Y1A 1G1

Tom Paterson

Association of Yukon Communities

#15-1114 1st Avenue

Whitehorse, YT Y1A 1A3

Joanne Rice

Executive Officer

Yukon Chamber of Mines

3151 B 3rd Ave.

Whitehorse, YT Y1A 1G1

Wilderness Tourism Association of the Yukon

P.O. Box 3960

Whitehorse, YT Y1A 1A3

Yukon Chamber of Commerce

President & CEO

101 - 307 Jarvis Street

Whitehorse, YT Y1A 2H3

Yukon Conservation Society

Executive Director

302 Hawkins Street

Whitehorse, YT Y1A 1X6

Yukon Fish & Wildlife Management Board

Executive Director

Box 31104

Whitehorse, YT Y1A 5P7

Yukon Outfitters Association

B4 - 302 Steele Street

Whitehorse, YT Y1A 2C5

Yukon Salmon Sub-Committee

203 - 419 Range Road

Whitehorse, YT Y1A 3V1

Yukon Trappers Association

4194A - 4th Avenue

Whitehorse, YT Y1A 1J8

YESAB & Water Board

Ken McKinnon

Chair, YESAB Board

Box 31642

Whitehorse, YT Y1A 6L2

Michael Muller

YESAB

Project Assessment Officer

Box 31642

Whitehorse, YT Y1A 6L2

Ryan Parry

YESAB

Senior Assessment Officer

Box 31642

Whitehorse, YT Y1A 6L2

Carole Scheu

Yukon Water Board

106 - 419 Range Road

Whitehorse, YT Y1A 3V1

YUB related

City of Whitehorse
Brian Crist
2121 Second Avenue
Whitehorse, YT Y1A 6I3

Peter Percival
Box 11243
Whitehorse, YT Y1A 6N4

Utilities Consumers' Group
Roger Rondeau
Box 9300, 29 Wann Road
Whitehorse, YT Y1A 5L7

Yukon Utilities Board
Chairperson Wendy Shanks
Box 31728
Whitehorse, YT Y1A 6L3

4F-3.2 MATERIALS

The first project newsletter was distributed at this time. See Appendix 4B-2.2.

Poster and fact sheets were available at the meeting See Appendix 4B-1.3.

Please sign in Thank-you.

Yukon Energy – Proposed Mayo B Project

Whitehorse Open House

Wednesday, January 21, 2009. 4-8pm
High Country Inn, 4051- 4th Avenue

Name	Signature- Organization
Ben Bucking	City of Whitehorse
Paul M. Munnell	
Wayne Tulek	City of Whitehorse
Bob Van Dijk	
Bernard Johnson	
Rick Laberg	Personal
Ann Louise	-
LEWIS RIFILINO	YUKON CONSERVATION SOCIETY
Anne Middler	Yukon Conservation Society
Sally Wright	Personal
JP Pinard	Personal

11/9
20 + YEC + consultants