

**CHAPTER 4**  
**APPENDIX 4D**

**Activities Involving Local Stakeholders  
and Municipal Government -  
Consultation Materials**



**TABLE OF CONTENTS**

**4D-1.0 ACTIVITIES INVOLVING LOCAL STAKEHOLDERS AND MUNICIPAL GOVERNMENT ..... 1**

**4D-2.0 FEASIBILITY STAGES..... 1**

**4D-2.1 AUGUST 5, 2008..... 1**

4D-2.1.1 Meeting Notes.....1

**4D-2.2 SEPTEMBER 23, 2008..... 5**

4D-2.2.1 Meeting Notes.....5

**4D-3.0 PROJECT INTRODUCTION AND ISSUES IDENTIFICATION ..... 7**

**4D-3.1 NOVEMBER 25, 2008..... 7**

4D-3.1.1 Meeting Notes.....7

4D-3.1.2 Materials..... 11

**4D-3.2 NOVEMBER 26, 2008..... 12**

4D-3.2.1 Materials..... 12

**4D-4.0 POTENTIAL PROJECT EFFECTS AND MITIGATION ..... 13**

**4D-4.1 JANUARY 19, 2009..... 13**

4D-4.1.1 Meeting Notes..... 13

4D-4.1.2 Materials..... 16

**4D-4.2 JANUARY 19, 2009..... 24**

4D-4.2.1 Meeting Notes..... 24

4D-4.2.2 Materials..... 30

**4D-4.3 JANUARY 20, 2009..... 53**

4D-4.3.1 Meeting Notes..... 53

4D-4.3.2 Materials..... 57

## 4D-1.0 ACTIVITIES INVOLVING LOCAL STAKEHOLDERS AND MUNICIPAL GOVERNMENT

Activities with local stakeholders were focused on three groups: 1) the Village of Mayo Mayor and Council, 2) the MDRRC, and 3) community members. Activities occurred were categorized into three time frames: feasibility stages, project introduction and issues identification, and potential project effects and mitigation. Upon introduction of the Project, meeting notes were sent to the various stakeholders for verification purposes.

### 4D-2.0 FEASIBILITY STAGES

#### 4D-2.1 AUGUST 5, 2008

##### 4D-2.1.1 Meeting Notes

## Meeting Report

Title:	Mayo B Project –Summer Field Studies Notification		
NNDFN Attendees:	Kris Pavlovich Councilor Trevor Ellis Councilor Margrit Wozniak CAO Barb Barchen, Clerk/Treasurer		
YEC Attendees:	Travis Ritchie & Darielle Talarico		
Meeting Location:	Village of Mayo Municipal Building	Mayo, Yukon	
Date:	August 5, 2008	Minutes status:	Final
Author:	Darielle Talarico	Phone:	867 668-2411
Meeting Purpose:	To inform the Mayo Municipal Government of YEC's interest in enhancing its existing hydro infrastructure and that at the present time it is looking at options at the Mayo facility. As part of the option assessment phase there is some geotechnical, environmental and cultural/heritage field work in progress.		
Discussion:	<p>Darielle introduced the following:</p> <p>Energy demand is on the rise in the Yukon due to growth on the system and predicted industrial growth from potential mining projects. It is expected by 2011 that there will be a need for more electricity than YEC produces at the moment.</p> <p>YEC, as part of its resource planning, is continuing to investigate its options for producing future power. YEC is first seeking to identify enhancement options for</p>		

	<p>its existing hydro infrastructure.</p> <p>Hydro generated power is preferred to diesel, which is expensive and produces green house gas emissions.</p> <p>This is why YEC is in Mayo and why we are looking at the Mayo facility – to investigate some possible options for enhancing its capacity.</p> <p>At this time there are no set projects only ideas. For instance, one idea is to convey water from the existing power house to a power house further down the river. This takes advantage of the elevation, creates more head and therefore could potentially double the electrical production.</p> <p>Once a project is determined it will be described, shared with you for feedback and then submitted to YESAB for assessment.</p> <p>Travis -</p> <p>The next few months there are a variety of studies being conducted to help determine what a potential project would look like and what its effects and benefits might be.</p> <p>This includes geotechnical work – specifically test holes below the existing power house. KGS will supervise Paddock Drilling in the conduct of the geotechnical investigation. There will be about 6 to 8 people here with several trucks for a period of several weeks.</p> <p>Given the preliminary nature of this investigation; YEC also felt it was a good opportunity to take a look at the existing operation and the environment it operates in. This is why we are doing some baseline environmental and cultural/heritage research in the area of Mayo River and Mayo Lake.</p> <p><b>Question - What will happen to the existing powerhouse?</b></p> <p>Travis – All options are open at this time. It may stay or it may be decommissioned.</p> <p><b>Question and discussion – Icing of the river issue.</b></p> <p>Kris - There seems to be icing problems, especially in the last five years since</p>
--	--

the Mayo Dawson line has been completed. The ice came up near to the top of the bridge across the highway into town. It caused glaciation in McIntyre Park and some other areas near the Village. High water is killing trees along the shore. Some people are getting ground water in their basements. It could be climate change and or the way water is coming out of the dam. Maybe the channels have changed.

Darielle – acknowledged they felt it was a concern – that they have a problem. Warned against speculating and the need to come back with the right expertise to talk about details.

Travis – explained that as part of the overall assessment of options for the Mayo facility there is technical work being done that will look at cross sections of the river to look at flow changes and how it might affect icing and the channel. Travis committed to getting back to them with the results of this work. He also pointed out that Mayo is on an ancient flood plain of the Stewart River and it is likely that the groundwater regime in Mayo is influenced by the Stewart River as well as the Mayo River. He noted that Ric Janowicz (YTG) and Ron Gee (YEC) had each independently looked into this issue and discussed ways ice forms on the river and if this could be manipulated by water flows from the Mayo facility. He also pointed out it would be interesting to look at the effects in the past (prior to 1989) when the Mayo facilities were serving the United Keno Hill Mining operation.

**Question - regarding Mayo Lake and the dam, if things will change.**

Travis – indicated this is a preliminary stage of the process and anything is possible at this point. Darielle – repeated that it did not however include changes to Wareham Dam. Trevor – asked if the lifespan of the dam is coming to term, Travis - indicated that wasn't the case. He then explained the safety measures that are in place and that YEC complies with National and Industry standards in this regard. Darielle indicated that a tour of the dam and a discussion about its structure, maintenance and safety procedures was being planned for NNDFN and this could also include the Mayor and Councilors/staff. As well, a public event could be held and include school children. There was interest again primarily for leadership.

Darielle – repeated messages in discussion as follows:

1. This is the pre-feasibility stage, just looking at the potential for a "project". Once a project has been determined YEC would come back and involve the municipality and community again. A discussion took place regarding the possibility of holding a joint meeting with NNDFN. This idea was supported on the premise that the two governments'

	<p>agreed to it.</p> <ol style="list-style-type: none"> <li>2. CSTP would proceed to stage 2 if an enhancement project proceeds with the Mayo facility. Some concern was noted – would this mean Mayo would suffer outages similar to what Whitehorse experiences. Darielle said it would be speculation to answer.</li> <li>3. YEC is also looking at geothermal as a means to generate electricity. If funding was acquired, satellite and infrared surveys would be undertaken to determine potential hot spots for future investigation. The difference between geothermal for electrical production and heat pumps (space heating) was explained.</li> <li>4. With regard to some of their infrastructure concerns, Darielle pointed out that there are adaptation plans being done for various Yukon communities.</li> <li>5. Price of electricity was raised. Travis indicated YEC is looking to reduce rates in the short term and YECL is currently proposing to increase rates. Darielle pointed out that if they (Village of Mayo) were interested they should participate in the YUB hearings, perhaps in partnership with the City of Whitehorse. Concern was raised that this had not been discussed at AYC.</li> </ol>
<p>Follow up required:</p>	<ol style="list-style-type: none"> <li>1. Agreed to provide contact information on adaptation planning initiatives being sponsored by the Territorial Government.</li> <li>2. Agreed to share the results of the technical information regarding the cross sections of the river looking at flow changes and how it might affect icing and the channel.</li> <li>3. Agreed to set up a meeting and tour of the dam in October.</li> <li>4. Committed to re-engaging the Municipal Government and community residents on a project concept that may come forward as YEC's planning progresses (potentially as early as mid to late October 2008).</li> </ol>

4D-2.2      **SEPTEMBER 23, 2008**

4D-2.2.1    **Meeting Notes**

# Meeting Report

Title:	Mayo B Project –RRC Briefing		
Attendees:	Frank Patterson (NNDNFN Member), Chair Barb Shannon, Ex. Director Lorelee Johnstone (YG Member) Vice Chair Donna Hope (NNDNFN Member) (Fish and Wildlife) Jimmy Johnny (NNDNFN Member) Scott Bolton (YG Member) Blaire Andre (YG Alternate) Ken Cooper (YG Member)		
YEC Attendees:	Nancy LeBlond and Darielle Talarico		
Meeting Location:	RRC - building	Mayo, Yukon	
Date:	September 23, 2008	Minutes status:	Final
Author:	Darielle Talarico	Phone:	867 668-2411
Meeting Purpose:	Introduce the pre-feasibility work being done in the area – and to introduce Nancy LeBlond, InterGroup Consultants concerning the socio-economic baseline studies.		
Discussion:	<p>Darielle introduced the pre-feasibility field studies on-going in the Mayo area over the course of the summer and fall (i.e., geotechnical drilling, aquatic and heritage field work). Nancy introduced the socio-economic field work, focusing on typical topics covered (i.e., population, education and employment etc.), with particular emphasis on land and resource use.</p> <p>The status of the Community-Based Fish and Wildlife Plan was reviewed:</p> <ul style="list-style-type: none"> <li>• The plan is being renewed and will be out shortly.</li> <li>• Big Island and Devil’s Elbow are both Habitat Management Areas, important for moose calving.</li> </ul> <p>Information from RRC on Resource Use &amp; other topics:</p> <ul style="list-style-type: none"> <li>• Mayo Lake is an actively used area for trout and grayling fishing, placer mining, and there are cabins around the lake (some within 30 m setback line)                         <ul style="list-style-type: none"> <li>○ One person lives at the lake most of the time – Chris ?</li> <li>○ Some of the cabins are for placer mining activities.</li> </ul> </li> </ul>		

	<ul style="list-style-type: none"> <li>• Berry picking wherever access is good [NNDFN will have more specific information]             <ul style="list-style-type: none"> <li>○ Jimmy reported that between Mayo River and Mayo Dam there are lots of berry picking areas (cranberries, raspberries, stone berries, high bush cranberries, blue berries).</li> <li>○ People hunt, fish, canoe</li> </ul> </li> <li>• Grayling is an important fish in the Mayo River, salmon downstream of plant</li> <li>• There is some eco-wilderness guiding, for example Wind River Outfitters; also the Wilderness Tourism Association would have information on this topic. Jimmy Johnny has been guiding in the Wind/Bonnet Plume area for many years.</li> </ul>
<p>Questions asked or issues raised:</p>	<p><u>Questions from RRC:</u></p> <p>RRC: Will this new project have a tunnel? It is one of the options being considered to move the water downstream to a new powerhouse.</p> <p>RRC: Is heritage work being done? Yes, heritage work was undertaken I the summer months, working with NNDFN.</p> <p><u>Comments/Issues raised by RRC members:</u></p> <ul style="list-style-type: none"> <li>• It is great that this baseline information is being collected.</li> <li>• NND has information on fisheries.</li> <li>• Chinook salmon use the river and spillway area – when the water levels drop in the fall, sand bars are exposed</li> <li>• Below the Minto Bridge there is a farm (Mease property) – this is the only real local farm that supplies the area. Some of the farm property has experienced flooding at certain times.</li> <li>• Fluctuating water levels in the river is the key problem.</li> <li>• The issue of no fish ladder will be brought up by people when YEC goes out for public consultation. When Wareham was built, the community wanted to see a fish ladder put in to move fish upstream of the dam, into the upper Mayo Rive.</li> <li>• Dam safety: another topic that will be raised during public consultation will be the issue of dam safety, especially the effects on the only road bridge into the Village being damaged if the dam broke.</li> <li>• At the time of the Wareham dam construction, there were some old buildings on the other side of the bridge, belonging to NNDFN – these were flooded out.</li> <li>• Electrical rates: Why have our power rates increased so much, since Dawson was added to the system, and in particular in the past 3-4 months? DT: probably due to RSF decrease.</li> <li>• Fifty years ago we were told we would have cheap power here, and we would be protected from increasing rates – now there are these increases. DT – discussion on who might have made such a promise, possibly United Keno Hill who they said built the dam.</li> </ul>

**4D-3.0 PROJECT INTRODUCTION AND ISSUES IDENTIFICATION**

**4D-3.1 NOVEMBER 25, 2008**

**4D-3.1.1 Meeting Notes**

**Meeting Report**

Title:	Mayo B Project Briefing		
Attendees:	<p><b>Village of Mayo:</b></p> <ul style="list-style-type: none"> <li>• Samantha John – Administrative Assistant</li> <li>• Barb Barchen – Clerk/Treasurer</li> <li>• Trevor Ellis – Councilor</li> <li>• Kris Pavlovich – Councilor</li> <li>• Michael McGinnis – Councilor</li> <li>• Margrit Wozniak – Chief Administrative Officer</li> <li>• Scott Bolton – Mayor (and member of RRC)</li> </ul> <p><b>Mayo District Renewable Resources Council (RRC):</b></p> <ul style="list-style-type: none"> <li>• Barb Shannon – Executive Director</li> <li>• Dawna Hope – NND Representative</li> <li>• Mark O'Donoghue – Yukon Fish and Wildlife Branch (RRC member)</li> <li>• Ken Cooper – Member</li> <li>• Frank Patterson – Chair</li> <li>• Jimmy Johnny – NND Representative</li> </ul>		
YEC Attendees:	Hector Campbell, Darielle Talarico, Kristin Kent		
Meeting Location:	Village of Mayo Council Chambers	Mayo, Yukon	
Date:	November 25, 2008	Minutes status:	Final
Author:	Kristin Kent	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:	<p>Darielle opened the meeting. She explained Yukon Energy's 20 Year Resource Plan (2005) and that Yukon Energy has been considering options for increasing power production to meet anticipated electrical needs in the territory. She indicated that the urgency for this new power has diminished somewhat due to current market conditions. While Alexco coming into production at the Keno mine site is still very likely, it is likely that customers such as Carmacks Copper will be delayed in their need for power.</p> <p>As such, there is a need to complete Stage II of the Carmacks-Stewart</p>		

	<p>Transmission Project (CSTP) first in order to interconnect the Mayo-Dawson and Whitehorse-Aishihik-Faro grids. There is likely sufficient power on the two grids to supply Alexco's needs in the short term. In order for a project such as Mayo B to go ahead, there is a need for an additional customer such as Carmacks Copper. The intention at this time is to continue to pursue a YESAB filing for Mayo B early in 2009 since it takes considerable time to get such a project assessed and licensed.</p> <p>No decisions have been made to proceed with the project at this time. Several tasks need to be accomplished including finalizing engineering for the project, a submission to YESAB, application for a Water Board license, consultation with stakeholders across the Yukon, completion of CSTP Stage II, and confirmation of another major customer on the system.</p> <p>The potential in-service date for Mayo B would be in 2011/2012.</p> <p>Although we have spoken with the Village and RRC about the feasibility studies that have occurred over the course of 2008, today presents the first opportunity to discuss the project in greater detail. It is also the first opportunity for attendees to identify any key perspectives and issues they may have regarding the project.</p> <p>Hector began by explaining the current Mayo hydro facility which came into production in 1951 to service the United Keno Hill Mine. A second turbine was added to the facility in 1957, and the plant operated at near capacity until the late 1980's when the mine shut down. Between the late 1980's and the commissioning of the Mayo-Dawson transmission line in 2003, the plant operated at about 20% of its capacity. Since the Mayo-Dawson grid has been connected, there has been an increase in power production to serve both Mayo, Stewart Crossing and Dawson. The current hydro station has a capability of generating 40 GWh/year. It is currently generating about 32 GWh/year. There is still some surplus within the system but not enough to serve a customer such as Alexco. Alexco's power requirements could be met with the completion of the CSTP Stage II, but there will be other customer growth in the future, and as such additional generation projects will need to come into production.</p> <p>Hector explained the existing components of the Mayo hydro facility are the existing power house, the Wareham Dam, and the control structure at Mayo Lake. Water storage at Mayo Lake is currently operated within a 2.5 meter range. It basically holds summer flows for release over the winter. He went on to explain that by developing a new powerhouse approximately 3km</p>
--	--

downstream of the existing powerhouse would allow for almost double the amount of power by capturing additional head. The available head (or vertical drop) is currently 38 meters. This would increase to 65 meters with a new powerhouse. The existing powerhouse may still be used to regulate water flows on the Mayo River (in between the old powerhouse and the new powerhouse)

The water conveyance options were explained, with a preference for the tunnel option should it prove to be technically possible. The tunnel has the benefit of fewer environmental impacts (it would be underground), and fewer operating issues such as icing. Core samples of the bedrock have been taken and seismic work is on-going to determine the feasibility of the tunnel. A penstock would be the preferred option to a canal if a tunnel option becomes unfeasible.

Potential changes to the Mayo Lake water license were explained, with the current thinking to increase the lower limit of the license by an additional meter. This would not result in increased water levels or flooding; however, an amendment to the existing water license would still be required to draw down lake levels lower in the spring.

Hector explained that YEC looking for ways to improve debris and water management at the control structure on Mayo Lake. They are exploring a better design for the trash racks, as well as assessing the installation of inflatable splashboards which could allow for more flexibility in releasing water. These activities will proceed regardless of whether the Mayo B project goes ahead.

Hector explained that an erosion specialist has been hired to determine what sorts of effects are likely to happen to the shoreline of Mayo Lake. YEC has taken high detail aerial photography of the project area to help to understand what sorts of changes might be anticipated.

Hector explained the aquatic field studies that have been conducted to date. The focus has largely been on salmon and salmon habitat (focused on spawning and rearing habitat) in the lower Mayo River, and on lake trout and whitefish in Mayo Lake. He explained that the project provides opportunities to enhance salmon habitat in certain reaches of the Mayo River.

Work on understanding hydrology and the potential implications for the project area is on-going. More reports are anticipated in the next month. When results become available they will be shared with the public through a second project newsletter and the YESAB filing. Additional meetings are expected to be held in early January in Mayo.

	<p>Heritage studies have been completed.</p> <p>Plans for further consultation were briefly discussed, with the hope to come back to the community early in the New Year.</p>
<p>Questions asked or issues raised:</p>	<ul style="list-style-type: none"> <li>• The plunge pool below the Wareham spillway is a popular fishing site.</li> <li>• Concerns about flooding on Mayo Lake were expressed.</li> <li>• Clarification was asked as to how using more water would be accomplished.</li> <li>• Several people indicated that since the Mayo-Dawson line has come online, the water levels at Mayo Lake have been high. This is particularly a concern for people who have property around the lake. There has been increased erosion of shorelines (up to 10 feet of shoreline in some places), as well as navigation issues related to both more trees falling into the lake, and high waves when the wind picks up. For some property owners there is the possibility of having to relocate cabins.</li> <li>• People have observed that over the summer, fluctuations in the lake and river levels have been more common. There is a perception of less control of flows.</li> <li>• Yukon Energy was asked if they were considering any riprap projects to stabilize shorelines along the Mayo River.</li> <li>• Will copies of the studies undertaken for the project be available to the community?</li> <li>• Concern was expressed about water levels dropping shortly after salmon spawning. If salmon populations continue to drop there will be increased subsistence fishing pressure on lake trout and whitefish.</li> <li>• Questions were asked about a fish ladder at the Wareham Dam. It is a question that people have been asking for years.</li> <li>• Questions were raised about the potential effect of lowering water levels on small aquatic fur-bearing mammals living in tributaries to Mayo Lake and the Mayo River.</li> <li>• Water levels around the Mayo Bridge are a community concern. Not only does it present a risk to water levels in town, but has also resulted in standing water and an increased need for mosquito control, and increased erosion of the dyke. McIntyre Park was completely under water during the spring. Are any measures being considered to address these impacts?</li> <li>• Interest in the results of the heritage study was expressed.</li> <li>• The water levels near the existing powerhouse make boating quite difficult. Increased water levels this year have resulted in improved access, in particular for hunting.</li> <li>• The potential for jobs resulting from the project was seen as a good opportunity, in particular for youth. There was interest in the sorts of training opportunities that might be available, as well as interest in the creation of permanent jobs.</li> <li>• Locating a work camp within the municipal boundaries might be cause for concern. An influx of 40 or more people into a quite small community could have social implications. It's a quiet town. It might also increase hunting pressure. A location above the current powerhouse (which used to have</li> </ul>

---

	<p>houses) was suggested by one attendee.</p> <ul style="list-style-type: none"><li>• What back-up plans exist should there be a power failure?</li><li>• The RRC's attempt to regulate moose harvesting in the area near McQuestern Lake has increased pressure on moose populations on Mayo Lake.</li><li>• Are there plans to provide power at Mayo Lake?</li></ul>
--	--

**4D-3.1.2 Materials**

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

4D-3.2 NOVEMBER 26, 2008

4D-3.2.1 Materials

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

Mayo Hydro Enhancement Project (Mayo B)  
Community Drop-In  
Wednesday, November 26, 2008. 5-8pm  
Mayo Community Hall

Name (please print)	Signature
MANFRED Wozniak	M. Wozniak
Philip M. Case	P. M. Case
Bill LEARY	
Joella Hagan	J. Hagan
Frank Patterson	F. Patterson
BRUCE MITFORD	B. Mitford

**4D-4.0 POTENTIAL PROJECT EFFECTS AND MITIGATION**

**4D-4.1 JANUARY 19, 2009**

**4D-4.1.1 Meeting Notes**

**Meeting Report**

Title:	Mayo B Project –Meeting to address Village of Mayo questions of Dec. 18, 2008		
NNDFN Attendees:	Scott Bolton, Mayor Kris Pavlovich, Councilor/Deputy Mayor Trevor Ellis, Councilor Margrit Wozniak, CAO Barb Barchen, Clerk/Treasurer		
YEC Attendees:	Hector Campbell, Project Sponsor Patrick Bowman, Project Manager (InterGroup Consultants) Travis Ritchie, Manager of Environment Darielle Talarico, Corporate Spokesperson Nancy LeBlond, Socio-Economic Assessment (InterGroup Consultants)		
Meeting Location:	Village of Mayo Municipal Building	Mayo, Yukon	
Date:	January 19,2009	Minutes status:	FINAL
Author:	Nancy LeBlond	Phone:	204-942-0654
Meeting Purpose:	To address and discuss the list of questions provided to YEC by letter on December 18, 2008. A table listing the questions and YEC's initial draft responses, including additional follow-up as needed.		
Discussion:	<p>Darielle thanked everyone for enabling this discussion of the Village's concerns prior to the Community Dinner. Round table introductions were made.</p> <p>Patrick noted that basic briefings on the Project have occurred prior to Christmas with the Village Council. YEC is starting to address the issues and concerns identified through the public consultation process, including those provided in the Village's letter to YEC. We have tried to address each concern, however several are still on-going and require follow-up.</p> <p><u>Questions 1-4:</u></p> <p>The first set of questions pertains to capacity and use of Village infrastructure and relate to the construction phase of the Project. Patrick reviewed YEC's</p>		

prepared responses (see Appendix A) and noted that:

- YEC will follow-up with AECOM concerning the issue of the Village well.
- In the future, YEC, through the successful contractor on the Project, can work with the Village to establish an appropriate fee for use of the Village's sewage lagoon and landfill – subject to further discussions.
- The issue of the use of the Village landfill was clarified to mean “construction waste” such as concrete, steel, lumber etc. Travis noted that YEC could landfill these bulky items on YEC property. In terms of camp waste, this could be either burned or trucked to the Village's landfill – the issue is volume. YEC would incorporate recycling of materials at the camp to reduce the volume of camp waste.
- In terms of materials requiring special handling, such as hazardous waste, Travis noted previous experience enabled YEC to store the materials on site and then arrangements were made with YTG for pick up.

Question 5:

The group discussed the best manner of handling alcohol incidents within the Village due to construction workers coming into town during their non-working hours. Hector noted that the policies identified in the table can be applied to YEC property; however, YEC can't control what people do on off-work hours. Both the Village and YEC agreed an important component to address this issue is good communication and liaison between the Village and YEC if an issue arises. In addition, Scott indicated there are good recreation facilities here in town that would be accessible to camp workers during their free-time.

Question 6:

Similarly, the group discussed the issue of increased hunting and fishing pressure from camp workers. Mayo is currently experiencing many Whitehorse area hunters coming up to the Mayo environs and hunting moose in particular. This has caused some tension and concern amongst local residents. Councilors noted that Alexco has an effective policy to deal with this issue and will provide some wording used by Alexco and Mayo for YEC to consider. Having a single liaison contact person will also help to address this concern.

Question 7:

Concern over power interruptions once the grids are interconnected was expressed. Patrick indicated there would be no changes to the power supply to the community, including local diesel back-up in Mayo in case of outages. The Mayo diesel plant would be used to serve Mayo, but not intended for major grid support as it is a small diesel plant. Once the Mayo B Project was built, the plant would be one out of three hydro plants on the entire system. The system would also have electrical protections built to isolate or separate any segments of the line that were down. YEC's system is based on a 'single failure' criteria which requires that sufficient back-up power is available in the event of the failure of the most critical component of the system at any time.

Hector indicated there will be more sources locally to provide power – the existing plant, the new station and back-up diesel. In terms of size, to give perspective the additional power brought on line by Mayo B would be sufficient power to service Mayo, Dawson, the Alexco mine and even potentially the Dublin Gulch development in the early years (depending on their forecasted loads).

Question 8/9:

Councilors further explained that the issue is existing currently, and relates to winter ice melting in-situ in low-lying areas. The water is pushed out onto the flat, low-lying land during winter and at least in recent years does not dry up in spring/summer when mosquitoes start hatching. Some water comes in behind the dyke, and it also runs in the ditches along the dyke road. Ice is also pushed up onto the land – one year the picnic tables at McIntyre Park were frozen into the ice up to the level of the seats.

Patrick noted that as the system is presently configured the existing plant has to handle the daily fluctuations in demand from the MD grid – essentially acts as the single plant on a small system. If the grids become interconnected, the Mayo facilities will act as a small plant on a large system, and won't be expected to experience the large daily swings. Water flows would be expected to be steadier (although somewhat higher) during winter.

YEC will continue to follow-up on this issue; and the Village will speak with local people such as Dick Ewing, Wilf Tuck and Herb Davies to gain a better understanding on the timing and location of water in low-lying areas

Question 10:

YEC noted this is not a very large construction project however they will keep Yukon Highways appraised of the anticipated volumes of truck traffic prior to construction. The Village is most concerned with the highway between Stewart Crossing to Mayo and up to Keno.

Question 11:

Patrick noted that good communication through a key liaison/contact person is central to the way Yukon Energy would look to manage the project. For the planning phase, Hector Campbell is the key liaison person; if the project proceeds, a person would be appointed for the construction phase.

Question 12:

There are two phases to consider for direct benefits – construction and operations.

- Construction phase: the work camp would offer some business and employment opportunities; however, how that occurs will depend on the contracting arrangements for the project which are currently not

	<p>defined.</p> <ul style="list-style-type: none"> <li>• Operations phases: essentially this will be very similar to the existing plant. There will be substantial regional benefits for all Yukoners if the project proceeds, including potential for economic development to occur using renewable power.</li> </ul> <p>Scott indicated that the Village would like to work with YEC to identify possible long-term benefits for the community, such as:</p> <ul style="list-style-type: none"> <li>• If the tunnel option is chosen, the excavated rock could be used to shore up the dyke, particularly in low-lying sections.</li> <li>• As YEC will need potable water, possibly from a new well on site, perhaps they could consider drilling the well within the Village boundaries as legacy infrastructure. The Village has the necessary pumping facilities and NND have water trucks to deliver the water to the camp, and the well would then be available after construction to the Village as a new supply – a win/win situation for all three parties.</li> </ul> <p>Hector noted that YEC looks to maximize local benefits wherever feasible. Patrick indicated that we can incorporate what we have heard into the YESAB filing; while recognizing there is still plenty of time to address some of the details prior to construction. No decision has been made on moving forward with the project. YEC is targeting March to prepare and potentially file a Project Proposal submission to YESAB. If the Village has any additional specific concerns, or areas where YEC and the Village could discuss potential benefits to the community, to please send them to Hector as soon as possible.</p> <p>Given the attention in the media lately about Mayo B, YEC wants to provide assurance that they are following a full process for the assessment of this project.</p>
<p>Follow up required:</p>	<ol style="list-style-type: none"> <li>5. YEC will follow-up with AECOM concerning the issue of the Village well.</li> <li>6. The Village will look into how Alexco handled the issue of increased hunting pressure from mine workers, and will provide some wording used previously for YEC to consider.</li> <li>7. The Village will speak with local people such as Dick Ewing, Wilf Tuck and Herb Davies to gain a better understanding on the timing and location of water in low-lying areas.</li> <li>8. Yukon Energy is also following up on the icing issue and will get back to the Village if more information is required to be exchanged.</li> </ol>

**4D-4.1.2 Materials**

Copies of the posters and fact sheets used for the community meeting were also provided. See Appendix 4B-3.2.



## VILLAGE OF MAYO

2008 DEC 18 11:02 Website: [www.yukonweb.com/community/mayo](http://www.yukonweb.com/community/mayo)

Box 160  
Mayo, Yukon  
Y0B 1M0

Phone: (867) 996-2317

Fax: (867) 996-2907

E-mail: [mayo@northwestel.net](mailto:mayo@northwestel.net)

December 18, 2008

Hector Campbell  
Director, Resource Planning & CIO  
Yukon Energy Corporation  
P.O. Box 5920  
Whitehorse, Yukon  
Y1A 5L6

200-820-140

Dear Mr. Campbell,

**Re: Proposed Mayo Hydro Generation Enhancement Project ("Mayo B")**

The Council for the Village of Mayo discussed the "Mayo B" Project at their meeting of December 17, 2008.

Council had some concerns they would like to bring to your attention prior to the next scheduled meeting in January 2009.

You had stated that a camp for approx. 50 workers would have to be established for a period of about 2 years in order to complete this project. Council believes that a camp of this size would impact our community in a number of ways. Council's concerns are the following:

- 1) There is the possibility of additional water being drawn from our well and pumphouse to supply this camp and the Village of Mayo system is almost at capacity now.
- 2) The possible increase in fluctuations of the Mayo River water levels could adversely affect our town's drinking water supply and make it necessary to dig a new drinking water well. A hydrological study may need to be undertaken to determine this.
- 3) Most likely there will be sewage hauled from the camp to our sewage lagoon which would increase the maintenance cost of the road leading to the lagoon that is maintained by the Village of Mayo.
- 4) There will be more garbage deposited at our landfill site which will decrease the life expectancy of the facility and increase the O&M costs for the time the camp is in existence.
- 5) A camp of this size could have an impact on the number of alcohol related incidents in our communities.
- 6) There would be the possibility of increased hunting and fishing pressure on our area.

.../2

Letter to Hector Campbell, YEC, December 18, 2008

Page 2

- 7) There could be more interruptions in the provision of power to members of our community and/or more fluctuations in the quality of power provided to the community, therefore shortening the lifespan of appliances etc.
- 8) Due to the fluctuations in water levels since the Mayo to Dawson Powerline was activated, there has been more water in the ditches and low lying areas along the Mayo River close to our community. The addition of the "Mayo B" project could further intensify this issue. This will increase our cost for the annual mosquito control.
- 9) The fluctuations in the water levels could also cause more icing along the Mayo River close to town and increase the possibility of flooding or a breach of the Mayo River dike.
- 10) The Silver Trail Highway would see additional traffic which would further worsen the already dismal condition of this highway. (A separate letter will be written to the Government of Yukon about this issue). YEC should encourage the Government of Yukon to deal with this road issue on our behalf.
- 11) In order to deal with any problems such as the ones mentioned above, a liaison person is needed to communicate between the Village of Mayo and YEC.
- 12) What would be the direct benefits of this project to the Village of Mayo?

Council is looking forward to discuss the aforementioned concerns with you at the January meeting.

Sincerely,



Scott Bolton  
Mayor

Mayo B Questions from Village of Mayo

Village of Mayo Questions/Concerns	Answer	Further Investigations
<p>1) There is the possibility of additional water being drawn from our well and pump-house to supply this camp and the Village of Mayo system is almost at capacity now.</p>	<ul style="list-style-type: none"> <li>• Yukon Energy will likely develop its own well or surface water collection site for potable water up at the camp site, located on or near YEC property north of the Community.</li> <li>• Construction water can be tapped from the existing hydro plant at Wareham lake.</li> </ul>	
<p>2) The possible increase in fluctuations of the Mayo River water levels could adversely affect our town's drinking water supply and make it necessary to dig a new drinking water well. A hydrological study may need to be undertaken to determine this.</p>	<ul style="list-style-type: none"> <li>• It is not expected that the future operation of the Mayo generating station will result in lower flows than current conditions in the Mayo River near the community. As such, it is unlikely that the community well would see any adverse effects in this regard.</li> <li>• That being said, Yukon Energy has spoken with the Public Works foreman who indicated that the drinking well is a shallow well about 20 ft. deep, and approximately 250 m from the Mayo R. The Foreman did not indicate there was any measured information on the influence of Mayo R. levels on the well.</li> <li>• We also understand that AECOM is looking at the characteristics of the well with respect to the Mayo River and its recovery capacity. Such research and analysis should aid in supporting the initial assessment that the well should be unaffected by Yukon Energy Operations.</li> </ul>	<p>Does the well have existing problems that give specific reason for concern?</p> <p>Yukon Energy's engineers on the Project will follow up with AECOM to investigate the issue further.</p>

Village of Mayo Questions/Concerns	Answer	Further Investigations
<p>3) Most likely there will be sewage hauled from the camp to our sewage lagoon which would increase the maintenance cost of the road leading to the lagoon that is maintained by the Village of Mayo.</p>	<ul style="list-style-type: none"> <li>• Yukon Energy is planning on using a holding tank at the camp for sewage. This can be pumped out periodically and trucked to the Village sewage lagoon.</li> <li>• Yukon Energy will consult with the Village of Mayo and determine an appropriate fee for use of the sewage lagoon.</li> </ul>	<p>Follow up discussions on sewage lagoon user fee.</p>
<p>4) There will be more garbage deposited at our landfill site which will decrease the life expectancy of the facility and increase the O&amp;M costs for the time the camp is in existence.</p>	<ul style="list-style-type: none"> <li>• Construction waste destined for land filling will be minimized. There will be a plan to reduce waste as much as is practical/possible. Where wastes are generated they will be recycled and reused where possible.</li> <li>• Where wastes are generated and are slated for landfill disposal, options exist to dispose of such material on Yukon Energy Property in an approved manner (Solid Waste Facility permit from YG).</li> <li>• All special and hazardous wastes generated at the project site will be recycled or disposed of in an approved manner.</li> <li>• There is also the option of using the Village of Mayo Landfill. As currently there are no user fees for Mayo residents to deposit garbage in the landfill, Yukon Energy will consult with the Village of Mayo and determine an appropriate fee for use of their landfill if this option were determined to be the preferable approach.</li> </ul>	<p>Follow up discussions on landfill user fee.</p>

Village of Mayo Questions/Concerns	Answer	Further Investigations
<p>5) A camp of this size could have an impact on the number of alcohol related incidents in our communities.</p>	<ul style="list-style-type: none"> <li>• As a mitigation measure, Yukon Energy will establish a “drug and alcohol” policy for the camp. Such a policy could include, among other elements, a “zero tolerance” policy for construction workers who cause alcohol related disturbances in town.</li> <li>• Yukon Energy would be interested in working with the community and government to ensure that such impacts are avoided, where possible, and otherwise to address such matters in an appropriate and timely way should signs begin to emerge that there is a problem (see # 11 re: liaison person).</li> </ul>	
<p>6) There would be the possibility of increased hunting and fishing pressure on our area.</p>	<ul style="list-style-type: none"> <li>• It is likely that some non-local workers will engage in subsistence and recreational hunting and fishing in the region. Yukon Energy will work with the community and resource managers (Yukon Government) to monitor whether such additional pressures are causing significant adverse effects to fish and wildlife and/or the local people that also use these shared resources.</li> </ul>	
<p>7) There could be more interruptions in the provision of power to members of our community and/or more fluctuations in the quality of power provided to the community, therefore shortening the lifespan of appliances etc.</p>	<ul style="list-style-type: none"> <li>• There is nothing associated with the Mayo B Project that is proposed to change the power quality that members of the community currently receive.</li> <li>• Yukon Energy will continue to have diesel generation in Mayo for backup in case of outages.</li> </ul>	

Village of Mayo Questions/Concerns	Answer	Further Investigations
<p>8) Due to the fluctuations in water levels since the Mayo Dawson Powerline was activated, there has been more water in the ditches and low lying areas along the Mayo River close to the community. The addition of the “Mayo B” project could further intensify this issue. This will increase the cost for the annual mosquito control.</p>	<ul style="list-style-type: none"> <li>• The Mayo Dawson line can result in somewhat higher winter flows (when power demand is the greatest). Since summer flows are not driven by producing power, but rather by the major spring freshet and runoff, the summer flows are not materially affected by the added load from Dawson. The Mayo B project will not result in higher spring time or summer flows so low lying areas adjacent the Mayo River should not see any material changes in water levels during the period of mosquito activity in the area.</li> <li>• 2005, 2007 and 2008 have been very wet years in terms of spring/summer/fall precipitation – this may be causing standing water in low-lying areas, and the associated increase in mosquito reproductive habitat and mosquitoes.</li> </ul>	
<p>9) The fluctuations in the water levels could also cause more icing along the Mayo River close to town and increase the possibility of flooding or a breach of the Mayo River dike.</p>	<ul style="list-style-type: none"> <li>• Yukon Energy is undertaking additional icing studies related to the Mayo River.</li> <li>• During winter, water levels will remain higher, with a gradual draw-down of Mayo Lake throughout the winter. This will help set the ice at a higher level, which may help to prevent flooding over top of the ice.</li> <li>• Once the Mayo Dawson and WAF grids are interconnected, Yukon Energy is reviewing whether daily water level fluctuations will be less.</li> </ul>	<p>Additional icing study and investigation.</p>

Village of Mayo Questions/Concerns	Answer	Further Investigations
<p>10) The Silver Trail Hwy. would see additional traffic which would further worsen the already dismal condition of this highway. (A separate letter will be written to the Government of Yukon about this issue). YEC should encourage the YG to deal with this road issue on our behalf.</p>	<ul style="list-style-type: none"> <li>YG highways will be made aware of the project, and its anticipated use of the Silver Trail Highway for hauling of equipment and materials.</li> </ul>	<p>Can the Village indicate which section of the Highway they are concerned about?</p>
<p>11) In order to deal with any problems such as the ones mentioned above, a liaison person is needed to communicate between the Village of Mayo and YEC.</p>	<ul style="list-style-type: none"> <li>In the pre-construction phase of the Mayo B Project, Hector Campbell is the designated liaison person for communications about the Project.</li> <li>In the event the Project proceeds, Yukon Energy will identify a liaison person to communicate with the Village during the construction and maintenance periods.</li> </ul>	
<p>12) What would be the direct benefits of this project to the Village of Mayo?</p>	<ul style="list-style-type: none"> <li>The Mayo B Project provides benefits to all Yukoners through continued access to clean renewable power for residential and industrial customers (including Alexco). Benefits also include reduced GHG emissions as more energy can be generated through hydro in lieu of burning diesel.</li> <li>Apart from the above, there are likely to be few direct benefits during the operation phase of the Project. There will be some direct benefits in terms of business and employment opportunities during the two-year construction of the Project.</li> </ul>	

4D-4.2      **JANUARY 19, 2009**

4D-4.2.1    **Meeting Notes**

# Meeting Report

Title:	Mayo B Project-Community Presentation		
Attendees:	Sign-in sheets are attached YEC Project Team Members included: Hector Campbell, Project Sponsor, Travis Ritchie, Manager Environmental Licensing, YEC Janet Patterson, Communications, YEC Darielle Talarico, Corporate Communications Patrick Bowman, Project Manager, InterGroup Consultants Nancy LeBlond, Socio-Economic Assessment, InterGroup Consultants		
Meeting Location:	Mayo Community Hall	Mayo, Yukon	
Date:	January 19, 2009	Minutes status:	Draft Final
Author:	Nancy LeBlond	Phone:	204-942-0654
Meeting Purpose:	To share information about the project to the community at large, including what field work has been done. To gain an understanding of community interests and concerns regarding this proposed project.		
Handouts	<ul style="list-style-type: none"> <li>• Poster/Fact Sheet handouts</li> </ul>		
Presentation (see attached)	Darielle Talarico opened the presentation on behalf of YEC. She thanked everyone for coming and thanked the catering staff for a wonderful meal. <ul style="list-style-type: none"> <li>• Yukon Energy is planning for the future through renewable energy projects. The first priority is to enhance existing facilities as identified in YEC's 20 year Resource Plan of 2005. One of those enhancements related to the Mayo facilities which are the focus of the Mayo B Hydro Enhancement Project.</li> <li>• YEC has to plan now in order to protect in service dates of 2011 or 2012 for this Project. This planning has to occur within a world of uncertainty – four months ago the markets were very different than today. This affects planning these types of projects.</li> <li>• Carmacks-Stewart Transmission Project Stage Two is still up for discussion. The Mayo B project as currently conceived is based on the interconnection of the grids – both the Mayo Dawson grid in the north and the Whitehorse-Aishihik-Faro grid in the south. The interconnection would be through construction of Stage Two.</li> <li>• No decisions have been made – this is still considered a potential project. The premier has been saying things in the press about the</li> </ul>		

	<p>project – this is focused on seeking funding for the project. YEC still has its process to follow for consultation, environmental and socio-economic effects assessment, and engineering work – all leading to a submission to be filed with YESAB and a major review by YESAB, before any decisions can be made.</p> <p>Hector Campbell (YEC) provided information on the assessment process that YEC is engaged in:</p> <ul style="list-style-type: none"> <li>• Public consultation with local stakeholders and the public, including NND, the Village and the Mayo Renewable Resources Council.</li> <li>• If the project continues to look positive, YEC will file a project proposal to the Executive Committee of YESAB. YESAB's review process is expected to take about 12 months. Permits and approvals will be required from Yukon government, the Federal government (DFO) and the Yukon Water Board. This entire process (including YESAB) is likely to take up to 18 months. Only after this is complete can Yukon Energy make any decisions about whether to proceed with the project.</li> <li>• The overall Project area including out to Mayo Lake was described.</li> <li>• Existing Facilities – Wareham:             <ul style="list-style-type: none"> <li>○ Current plant can produce on average about 40 GWh/year</li> <li>○ The first unit was built in 1951; second unit in about 1955 primarily to serve the Keno mine and the community of Mayo. The plant uses 36 m of head from Wareham Lake to the plant.</li> <li>○ Wareham dam controls the Wareham lake levels. Water from Wareham Lake enters the intake tunnel and travels about 0.5 km to the plant.</li> </ul> </li> <li>• Existing Facilities – Mayo Lake:             <ul style="list-style-type: none"> <li>○ 40-50 km upstream is the Mayo Lake control structure – a wood/concrete structure 6 m high and rebuilt in 1989. It will be serviceable well into the future.</li> <li>○ The control structure's basic function is to control the level of the lake within a fixed licensed operating range of 2.5 m – this storage is very large in comparison to Wareham Lake.</li> <li>○ The water is drawn down typically in the winter when the power is needed. The water flows downstream to Wareham where it is used to produce power.</li> </ul> </li> <li>• Operation of Mayo Facility:             <ul style="list-style-type: none"> <li>○ Between 1951 and 1989 the plant produced power for Keno and Mayo (about 30-35 GWh per year).</li> <li>○ From when the mine closed in 1989 to 2003 before Mayo Dawson line was built, the plant produced power only for local loads (about 8-15 GWh per year). This meant that water was routinely spilled</li> </ul> </li> </ul>
--	---

	<ul style="list-style-type: none"> <li>○ Since Mayo Dawson was completed in 2003, local loads have included Mayo, Stewart Crossing and Dawson – using about three-quarters of the available power, or up to 30 GWh per year.</li> <li>● Project Components include a new powerhouse, a way of moving water from Wareham Lake to the new powerhouse, possible changes to Mayo Lake levels and other infrastructure.</li> <li>● No changes are required to the Wareham dam or Wareham Lake.</li> <li>● New Powerhouse:             <ul style="list-style-type: none"> <li>○ To be located 3km downstream of existing plant taking advantage of a total head of 65 m, allowing about double the amount of power to be produced with the same amount of water</li> <li>○ Two to three turbines to produce 10-13 MW. This is bigger than the existing plant rated at 5.4 MW.</li> <li>○ The new plant will be set back from the river on the land, allowing construction to be done mostly “in the dry”.</li> </ul> </li> <li>● Water Diversion Options:             <ul style="list-style-type: none"> <li>○ Option 1: Moving water along the land surface using a canal and penstock (buried pipe). Start at existing intake tunnel with a penstock for a short distance; then convert to an open canal along the land contours for about 2.5 km or less, then converting back to a steel penstock which would run down the bank and into the new powerhouse.</li> <li>○ Option 2: Moving water through an underground tunnel, 3.5m in diameter (11-12 ft). The tunnel would be deep underground. Recent drilling and seismic results have indicated there is more overburden material than we thought, and the bedrock near Five Mile Lake is very deep (about 30m deeper than estimated). This means the tunnel option would require a pumping system – this has resulted in the engineers re-visiting the canal/penstock option more closely.</li> </ul> </li> <li>● Water Storage Improvements:             <ul style="list-style-type: none"> <li>○ The team is looking at a new lower minimum level for Mayo Lake up to an additional meter. It has been decided not to raise the level of Mayo Lake.</li> </ul> </li> <li>● Additional Infrastructure:             <ul style="list-style-type: none"> <li>○ New all weather access road and power line</li> <li>○ Temporary work camp for 50-75 people for up to two years. This work camp will likely average 40 people, with peaks in numbers depending on the diversion option and the season. The canal needs to be built in the summer; whereas the tunnel can be built year-round.</li> <li>○ The canal/penstock option would require more earth-moving activities, typical of road construction.</li> </ul> </li> <li>● Studies Done to Date:             <ul style="list-style-type: none"> <li>○ Over the summer and fall, Yukon Energy has had people in</li> </ul> </li> </ul>
--	---

	<p>the field doing various studies.</p> <ul style="list-style-type: none"> <li>○ In the construction footprint area, drilling and seismic work has focused on finding depth to bedrock for the water diversion options and whether permafrost exists along these routes.</li> <li>○ Aquatic field work has focused on the lower Mayo River – which has been divided into three zones:             <ul style="list-style-type: none"> <li>▪ Zone 1 between the Stewart R and the proposed powerhouse</li> <li>▪ Zone 2 between the proposed powerhouse and the existing plant</li> <li>▪ Zone 3 between the existing plant and the Wareham spillway</li> </ul> </li> <li>○ The aquatic team focused on freshwater fish species, in addition to Chinook salmon and their spawning habitat.</li> <li>○ Other studies in the construction footprint area included heritage resources investigations, mapping of forest cover, and collection of land and traditional/domestic resource use.</li> <li>○ The Upper Mayo River was identified as Zone 4, and Mayo Lake as Zone 5. Fish sampling was done throughout Zone 4. In Mayo Lake, focus was on fall spawners such as lake trout and lake whitefish as these will be more likely to be potentially affected by lake level changes. Spawning investigations for lake trout and whitefish were carried out, resulting in finding lake whitefish spawning up in Edwards Creek, and lake trout around Gull Island.</li> <li>○ Other studies in Zones 4 and 5 included identification of raptor nests, a waterfowl and brood survey, and recording of wildlife species. Land use, including placer mining and traditional/domestic resource use of the Mayo Lake area has also been recorded.</li> <li>● On-going Studies include:             <ul style="list-style-type: none"> <li>○ Water flow modeling – how will water levels and flows be changed with the project</li> <li>○ Ice studies in the lower Mayo River, particularly downstream of the Mayo bridge and flooding of the campground</li> <li>○ Socio-economic studies – collecting information through activities such as this community meeting and other consultation events</li> <li>○ Engineering studies on costs of project options (e.g., two vs. three turbines, plant size, design flow of water through the plant and how effects will be managed.</li> </ul> </li> <li>● Public Engagement – Yukon Energy is a Crown utility established to serve all Yukoners. Yukon Energy is looking to build for the future, with a focus on renewable, clean energy. Yukon Energy is very interested in to hear about people’s concerns and wants to understand what the issues are – this will assist in planning of the project.</li> </ul>
--	--

	<ul style="list-style-type: none"> <li>• Yukon Energy will continue to consult with NND, the Village Council, the Mayo District RRC, placer miners and local residents, and government and non-government organizations.</li> <li>• Summary – Yukon Energy has completed its field work and is now doing the analysis and assessment in preparation for filing a Project Proposal, currently targeted for March of this year. The team needs to know the environmental aspects of all options and the impacts on power production. Based on studies to date, it appears that the environmental effects of Mayo B are manageable, with potential opportunities to improve salmon habitat conditions.</li> </ul>
Discussion:	<p>The following interests and concerns were raised at the community meeting:</p> <ol style="list-style-type: none"> <li>1. The issue of a fish ladder has been raised before with the original project. <b>Will a fish ladder be part of this new project?</b> Hector indicated that a fish ladder will not be installed. This is in part based on advice of the aquatic experts. It is very costly, and there are too many other issues that need to be addressed. Also, it is not required to make sure Mayo B does not adversely impact the salmon. With the Mayo B project, Yukon Energy is looking at improving downstream habitat and making the lower Mayo River more productive.</li> <li>2. <b>Will there be local job opportunities with this project?</b> Hector indicated that although the details haven't been worked out, there will be opportunities for local people to be involved in the project. Yukon Energy's goal is to maximize local opportunities. Jobs such as road construction, site clearing and preparation, heavy equipment operation, trucking etc. are the types of jobs that are likely to be available. There will also need to be highly skilled workers for the electrical and plant construction.</li> <li>3. The existing facilities are causing <b>issues with current land owners such as flooding near the Minto Bridge.</b> Hector responded that this is an on-going issue that Yukon Energy will address with the property owner. The Mayo B project will not change the situation or the need to deal with this issue.</li> <li>4. <b>What about individual compensation?</b> The Mayo B project is not being undertaken in a way that is expected to lead to a requirement for compensation – any potential adverse effects are being avoided through the way the project is designed and operated. Hector indicated that Yukon Energy deals with requests for compensation on an individual case-by-case basis. Yukon Energy needs to understand if the issue is being caused by YEC operations. This was done at Aishihik Lake.</li> <li>5. <b>How safe is the Wareham Dam?</b> Hector indicated the Wareham dam is an earthen dam built to withstand a 1 in 10,000 year event – very high standards as it is upstream of a community. The dam is monitored continuously; and every five years undergoes an independent inspection by external engineers. Risk management is a key priority of Yukon Energy, and we meet or exceed all dam safety guidelines. Hector also noted that earth-filled dams like Wareham and Whitehorse become safer as they age as the earth gets compacted. In addition, the Village has an emergency plan and measures in place in case of any emergency event.</li> </ol>

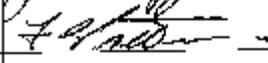
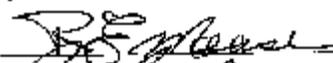
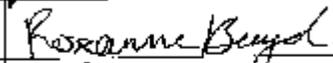
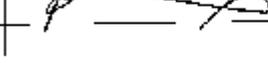
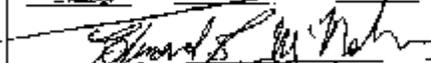
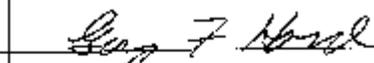
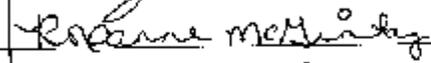
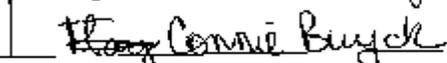
	<p>6. <b>When will this project be built?</b> Hector noted that Yukon Energy is currently targeting a March filing of the Project Proposal with YESAB. The assessment process, including review by the Yukon Water Board after YESAB, will take about 18 months or so. The earliest In Service Date (ISD) would be 2011 or 2012; with construction starting in summer of 2010 for 20 11 ISD, or 2011 for 2012 ISD. No construction will occur until permits are received; and there will be many more opportunities to hear about project activities over the next months and years.</p> <p>7. <b>Who pays for this project? Will our power rates go up if the project goes ahead? What if the mine shuts down – will taxpayers be on the hook?</b> Patrick indicated that no commitments are expected to be made to build the project until financing and loads are known – both industrial load growth in terms of new mines such as Alexco or others, plus regular growth on the system through more residential use of power. Hydro planning is a long-term activity. Funding is not yet in place for this project, although politicians are actively seeking dollars from the federal government.</p> <ul style="list-style-type: none"> <li>• Stage One of the Carmacks Stewart Project included dollars from the mining company towards the main transmission line from Carmacks to Pelly; plus they paid for the entire cost of the spur line to the mine. This arrangement has enabled YEC to recently request a rate decrease from the Yukon Utilities Board (YUB).</li> <li>• Everyone will benefit with more hydro on the system over the long term.</li> <li>• Grid power makes mines more economic to build rather than relying on diesel.</li> <li>• The power rates are set by the YUB;             <ul style="list-style-type: none"> <li>○ Everyone (residential) pays the same rate for the first 1000 KWh of use/month.</li> <li>○ Those people using more than 1000 KWh/month pay a higher rate on that additional power.</li> </ul> </li> </ul> <p>8. <b>There have been quite a few power outages in Whitehorse. Will Mayo experience these outages when the grids are interconnected?</b> Hector noted that Yukon Energy plans for the future – looks at existing infrastructure, enhancements to that infrastructure (i.e., Mayo B) and the interconnection of the grids into one overall system. They will then manage the system as a whole to ensure reliable and efficient delivery of power where it is needed.</p> <ul style="list-style-type: none"> <li>• A more diverse grid with more sources of power provided will lead to a more reliable system.</li> <li>• Residential and small business growth on the Whitehorse and Mayo Dawson grids is forecasted to be about 5 GW.h per year. The Mayo B plant will meet the needs of this growth over the next eight years without any mines. Planning long-term enables Yukon Energy to be ready to shift surplus power to where it is needed – for example to Alexco in the future. Adding more capacity (with Mayo B, Aishihik 3<sup>rd</sup> turbine) will enable the company to meet the needs of growth, including mines, in the future. If Yukon Energy doesn't do this, it will have to run diesel – which is costly, has</li> </ul>
--	---

	<p>environmental effects such as pollution and can hinder industrial growth.</p> <ul style="list-style-type: none"> <li>• Yukon Energy uses diesel to handle peak demands on the system; the company is trying to avoid using diesel for load growth and Mayo B is one of the options to assist in this goal.</li> </ul> <p>9. <b>How will water flows change with the new project? Will there be more water in the river downstream? How will this effect flooding of low-lying areas?</b> Patrick explained that the new plant will use the same water coming from Mayo Lake, but with some seasonal changes i.e., Yukon Energy would look to store more of the large spring freshet flows (the large floods) to release or use that water consistently in the winter when demand is higher.</p> <ul style="list-style-type: none"> <li>• With the existing plant, people are seeing daily changes as the plant is operated to match demand. With the new plant, these daily swings would likely be smoothed out.</li> <li>• The issues of more water in low-lying areas and over-land flooding are issues that exist now with the current plant. These concerns need to be addressed by the time we submit a Project Proposal to YESAB.</li> </ul> <p>10. <b>Yukon Energy used to have an office in Mayo where people could pay their bills. Can Yukon Energy increase their services in Mayo?</b> Hector noted that Yukon Energy is a regulated Crown utility by the YUB who has instructed the company to be cost efficient in their operations. This has resulted in some offices being closed in Mayo and at Faro.</p>
--	---

**4D-4.2.2 Materials**

Copies of the posters and fact sheets used for the community meeting were also provided. See Appendix 4B-3.2.

Yukon Energy – Proposed Mayo B Project  
**Community Meal and Information Session**  
Monday, January 19, 2009. 6-9pm  
Mayo Community Hall

Name	Signature
Jimmy SOHMY	
Frank PATTERSON	
NORMA MEASE	
RALPH MEASE	
Roy Buel	
Roxanne Bueck	
Rose Lemieux	
Alice Bueck	
ROBERT ADAIR	
ED. McMAHON	
MINNIE HASSSEN	
Mabel Bueck	
Dawn Hope	
GARY Hope	
Roxanne McSinty	
Connie Bueck	

16  
3  
48

50 + 42 = 16

**YUKON  
ENERGY**



# Mayo Community Presentation

Jan. 19, 2009  
Mayo

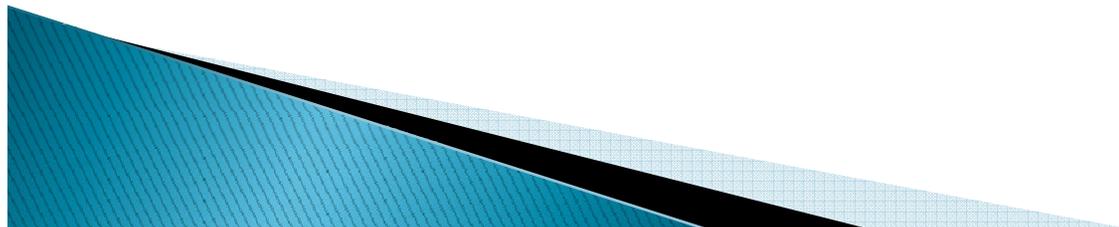
# Purpose of Session

- ▶ To share information about the project, including what field work has been done
- ▶ To gain an understanding of community interests and concerns regarding this proposed project.



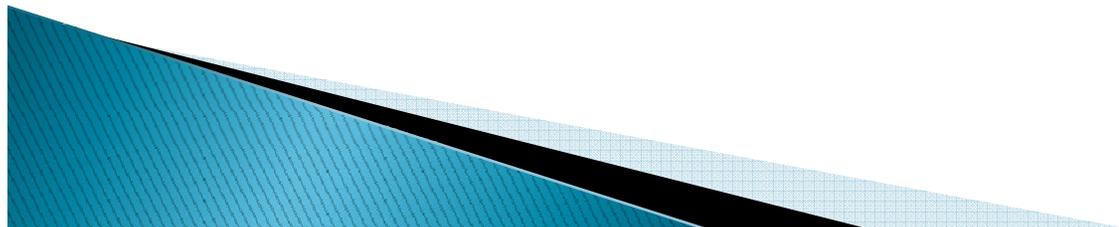
# Introduction

- ▶ Yukon Energy is planning for the future. We are seeking renewable energy sources.
- ▶ Our first priority is to enhance existing facilities.
- ▶ Today, we are focusing on a proposed project called ‘Mayo B’
- ▶ No decisions have been made at this time to proceed with the project.

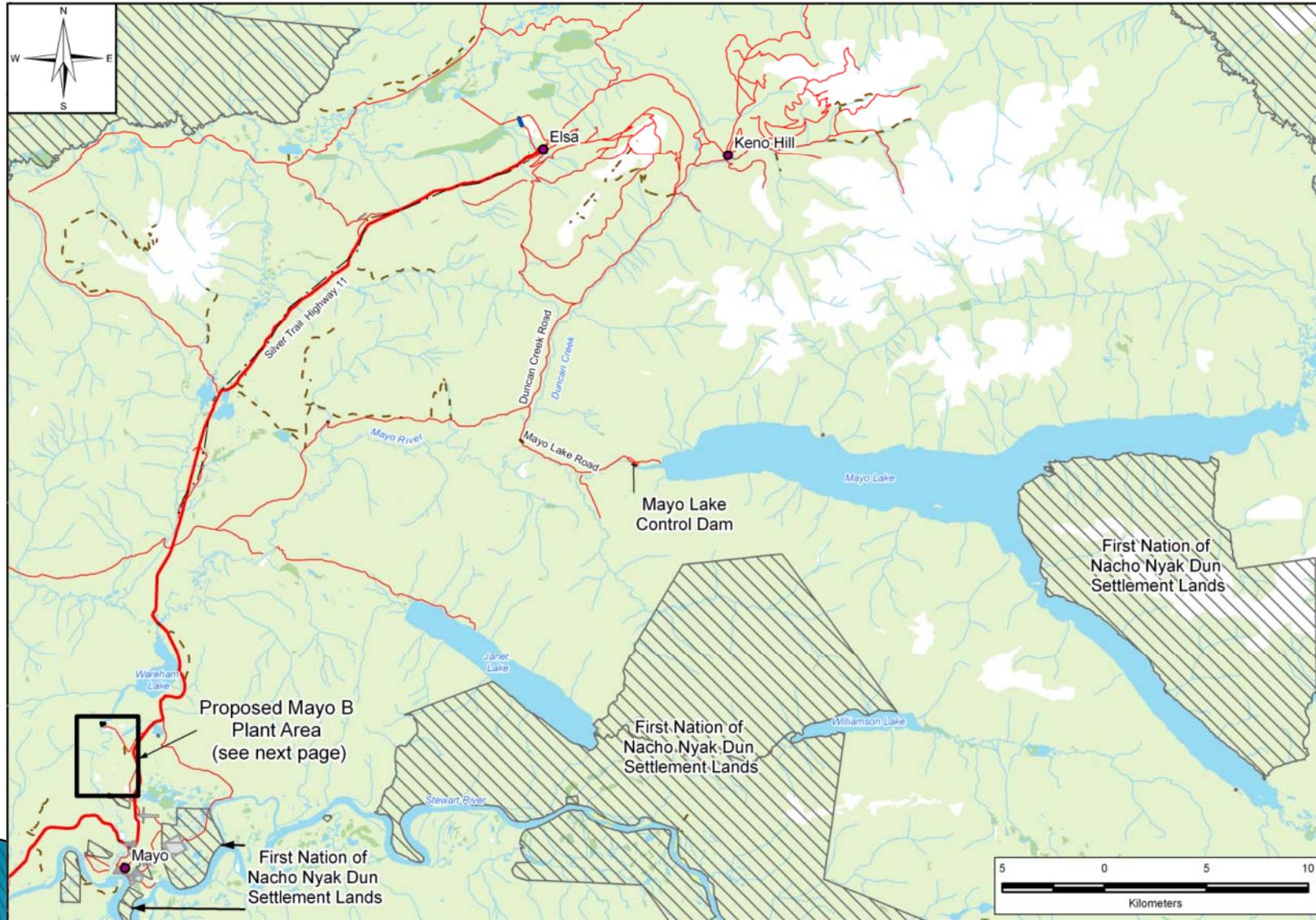


# Assessment Process

- ▶ Yukon Energy is continuing to consult with stakeholders and the public – including NND, the Village Council and the RRC
- ▶ If the project continues to look positive, a project Proposal to YESAB will be required.
- ▶ Government permits & approvals would also be required from Yukon government, Federal government (DFO) and the Yukon Water Board.



# Project Area



# Existing Facilities – Wareham

- ▶ Current plant can produce near 40 GWh per year
- ▶ The plant uses 36 m of ‘head’ or vertical drop from Wareham Lake to the plant
- ▶ Wareham dam controls the Wareham Lake levels. The 32 metre high dam created Wareham Lake.
- ▶ Water from the lake passes through a tunnel (about 0.5 km long) to the generating station.



# Existing Facilities – Mayo Lake

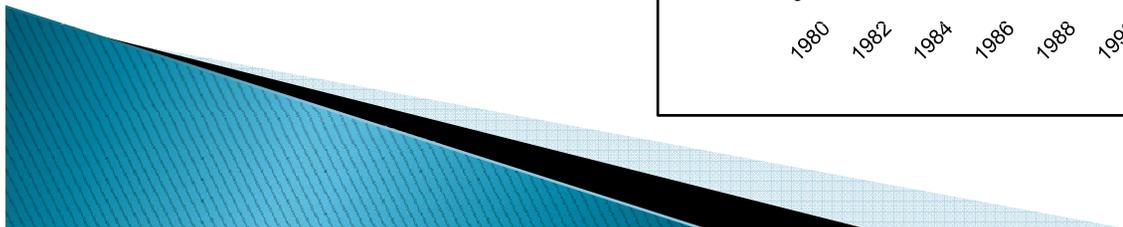
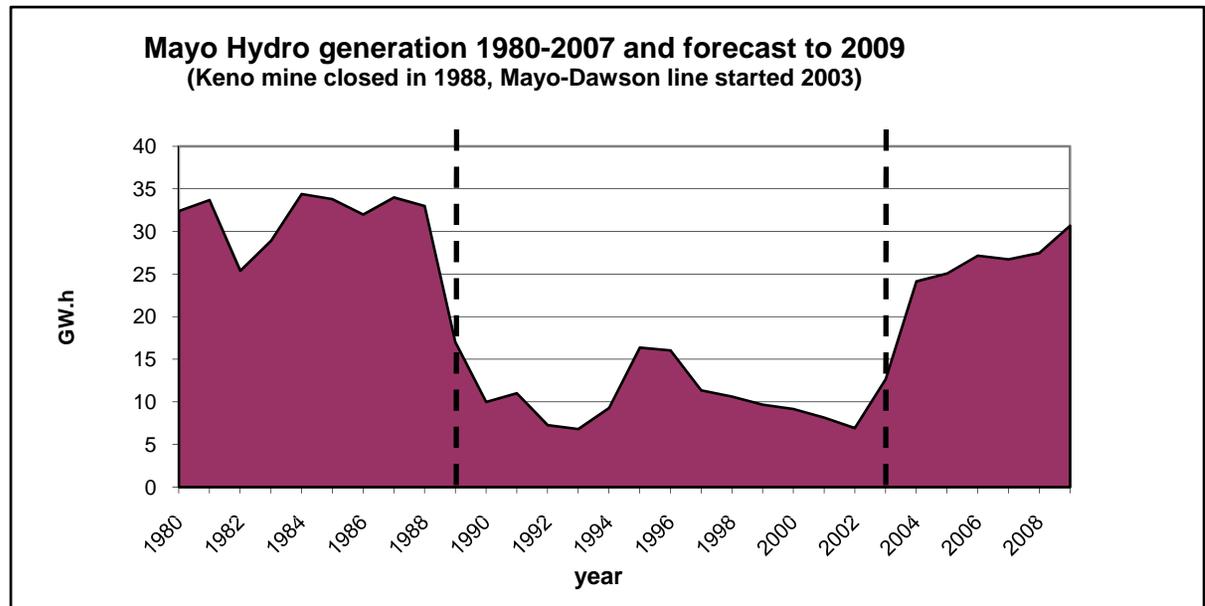
- ▶ The Mayo Lake dam is about 40–50 km upstream of Wareham Lake.
  - The dam is 6 m high, rebuilt in 1989
  - Provides the ability to control the lake level within a licensed range.
  
- ▶ YEC is allowed to draw the lake down up to 2.5 metres – normally done in winter when power is needed.
  - ▶ The water flows to Wareham Lake where it is used to produce power.



# Operation of Mayo facility

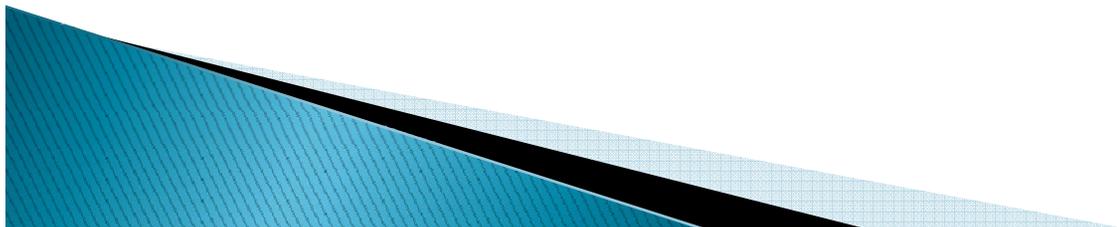
- ▶ 1951–1989: Keno mine and Mayo (when the mine closed) (30–35 GWh per year).
- ▶ Since mine closed: only Mayo and local Keno loads (between 8–15 GWh)
- ▶ Since Mayo Dawson (2003): Local loads plus Dawson and Stewart Crossing (up to 30 GWh)

•The plant still mostly runs at less than full levels, until it is fully needed



# Project Components & Options

- ▶ Four parts to the proposed Mayo B project
  - Powerhouse
  - Way of moving water from Wareham Lake to the powerhouse
  - Possible changes to Mayo Lake
  - Other infrastructure
  
- ▶ No changes required to Wareham dam or lake



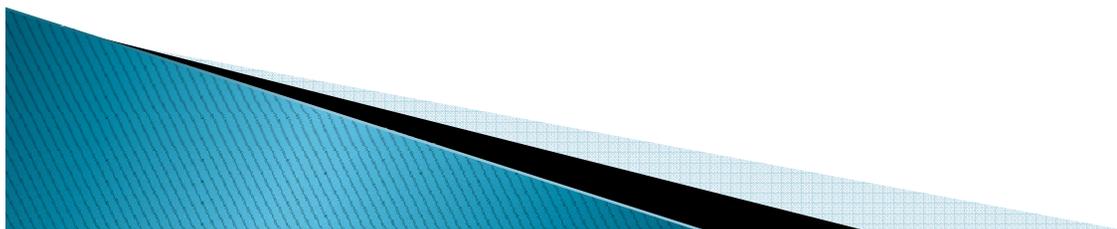
# Project Components & Options

## continued

- ▶ New Powerhouse:

- A total ‘head’ or vertical drop of 65 m – almost double existing drop, allows more power to be generated
  - 2–3 turbines to produce 10–13 MW. This is a bigger plant than the existing one.

- Set back from river



# Project Components & Options

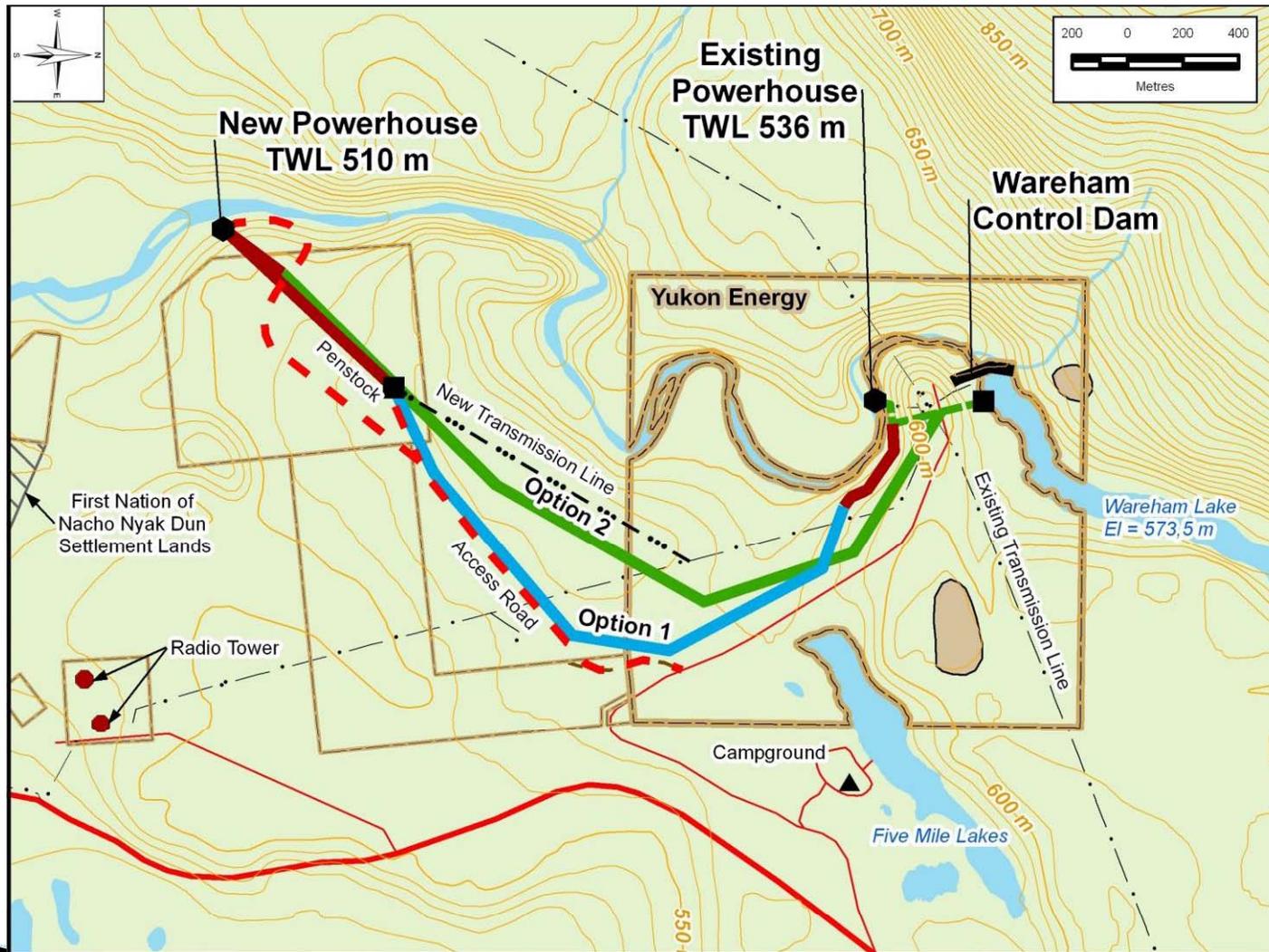
## continued

### ▶ Water Diversion Options:

- *Option 1: canal and penstock (see map)*
  - Move water at or near land surface using a canal and penstock (buried pipe)
  - Start at existing intake and follow the land contours before running down the bank into the new plant – about 3km total
- *Option 2: tunnel (see map)*
  - Move water by underground tunnel, 3.5 m (11–12 ft)
  - Tunnel is deep underground (65–100 m or more); tap into existing intake tunnel
  - Near the new powerhouse, the tunnel would change into a steel penstock to run down to new plant



# Construction Footprint



# Project Components & Options

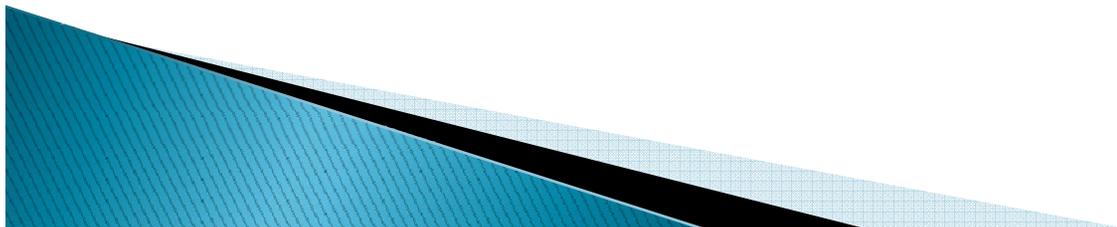
## continued

### ▶ Water Storage Improvements:

- Project may include a new lower minimum level for Mayo Lake. Options could be up to an additional 1 m
- If this is included in the project, no changes are expected to be required to the Mayo Lake control structure
- Mayo Lake will not be raised.

### ▶ Additional Infrastructure:

- New all-weather access road and power line
  - Temporary work camp for 50–75 people for up to two years
  - Site for dumping tunnel rock if Option 2 is chosen
- ▶ Construction activities include clearing, tunneling or penstock excavation, heavy equipment for road construction, etc.



# Studies Done to Date

- ▶ Over the summer and fall, Yukon Energy has had people in the field doing various studies. These have included:
  - Lower Mayo River and construction area (Zones 1–3)
    - Testing and seismic work to identify rock conditions

- Studies on chinook salmon, including spawning and habitat mapping



# Studies (cont'd)

- ▶ Lower Mayo River and construction area (Zones 1–3)
  - Heritage resources assessment
  - Mapping of forest cover
  - Land and traditional/domestic resource use



Huffman farmstead



Nicole Hutton & Robin Walton



Blaine Peter with scraper

# Studies (cont'd)

- ▶ Upper Mayo River and Mayo Lake (Zones 4 and 5):
  - Fish sampling throughout the upper Mayo River
  - Use of Mayo Lake by lake trout and whitefish, including spawning investigations



Beach seining



Radio-tagged lake trout



Edwards Creek

# Studies (cont'd)

- ▶ Upper Mayo River and Mayo Lake (Zones 4 and 5):
  - Identification of raptor nests, waterfowl & brood survey, recording of wildlife species



- Land use, including placer mining, and traditional/domestic resource use of the Mayo Lake area



# Ongoing Studies

- ▶ Possible water flows with a Mayo B project
- ▶ Ice studies in the lower Mayo River
- ▶ Continued socio-economic studies
- ▶ Collection of information during consultation
- ▶ Engineering studies on costs of project options



# Opportunities for Public Engagement

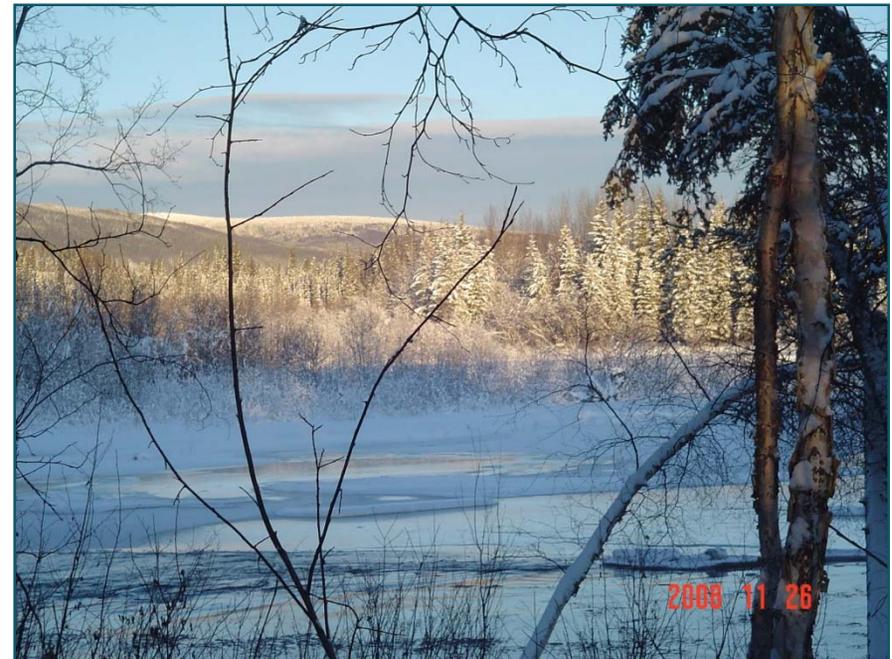
- ▶ Public involvement is important:
  - It helps shape the Mayo B project
  - It helps YESAB carry out its assessment of potential project effects
  
- Yukon Energy continues to consult with key stakeholders:
  - First Nation of Nacho Nyak Dun
  - Village Council & Renewable Resources Council
  - Placer miners and local residents
  - Government staff and non-government organizations

# Summary

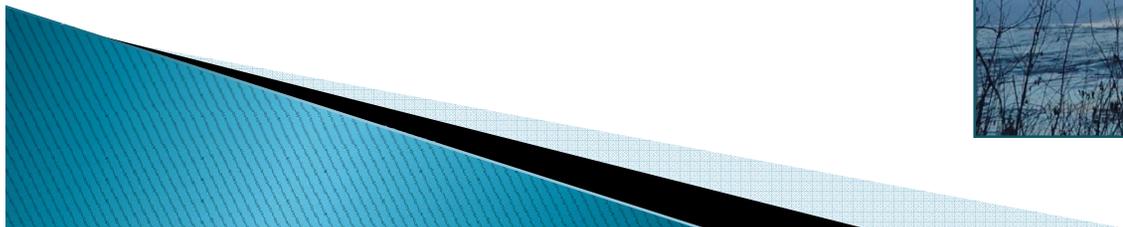
- ▶ Yukon Energy has done extensive field studies, but not completed assessment work to date
- ▶ Need to know the environmental aspects of all options, and the impacts on power production
- ▶ Based on fisheries studies and assessment to date it appears that environmental effects of Mayo B are manageable, with potential opportunities to improve salmon habitat conditions
- ▶ Need to fully work with NND to understand local perspective and knowledge
- ▶ YEC wants to develop a straight-forward and complete project proposal to help support an efficient assessment process by all parties



# Thank You



# Discussion



4D-4.3 JANUARY 20, 2009

4D-4.3.1 Meeting Notes

# Meeting Report

Title:	Mayo B Project Briefing Update		
Attendees:	<b>Mayo District Renewable Resources Council (RRC):</b> <ul style="list-style-type: none"> <li>• Barb Shannon – Executive Director</li> <li>• Frank Patterson - Chair</li> <li>• Dawna Hope – NND Representative</li> <li>• Jimmy Johnny – NND Representative</li> <li>• Blair Andre – Member</li> <li>• Mark O'Donoghue – Yukon Fish and Wildlife Branch (RRC member)</li> <li>• Mary and Pete Beattie - Guests</li> </ul>		
YEC Attendees:	Hector Campbell, Travis Ritchie, Darielle Talarico, Nancy LeBlond		
Meeting Location:	RRC Office	Mayo, Yukon	
Date:	January 20, 2009	Minutes status:	FINAL
Author:	Nancy LeBlond	Phone:	(204) 942-0654
Meeting Purpose:	Provide a Mayo B Project Update and discuss any issues or concerns from the Mayo District RRC.		
Introduction:	<p>Darielle opened the meeting and thanked the RRC for the opportunity to come again and update everyone on the Mayo B Project. As everyone was at the Community Presentation the evening before, we would focus our comments on Project updates since the last meeting. We would like to hear from the RRC of any concerns they may have with the proposed Project. Yukon Energy will also provide a brief update on where we are at in terms of the process to file a Project Proposal with YESAB.</p>		
Project Update:	<p>Hector indicated we had three topics to provide an update on – i) water flows downstream of the existing plant in Zone 2; ii) water conveyance options; and iii) Mayo Lake water levels.</p> <p><u>Lower Mayo River (Zones 1-3):</u></p> <ul style="list-style-type: none"> <li>• Zone 2 is the 3 km stretch of the river between the existing plant and the proposed powerhouse. Zone 1 is between the proposed new plant and the Stewart River; and Zone 3 is between the Wareham spillway and the existing plant.</li> <li>• Yukon Energy is focusing on managing the Project to generate cost-effective power production and improve Chinook salmon and other freshwater species habitat in the lower reaches of the Mayo River.</li> <li>• To accomplish this, Yukon Energy is looking at running 5-6 cms of</li> </ul>		

	<p>water flow through the existing plant to provide good spawning habitat in Zone 2. Timing and amount of flow during the fall spawning season is important; as is not reducing the flow dramatically during egg incubation and freezing the eggs over winter.</p> <ul style="list-style-type: none"> <li>• The goal is to enhance spawning in Zone 2 with higher and more regulated minimum flows of 5-6 cms.</li> <li>• The rest of the water will be diverted through the new plant up to its design flow capacity of about 19-20 cms.</li> <li>• In Zone 1, Yukon Energy is looking at the potential to recreate more salmon spawning and rearing habitat in an old abandoned side channel off the tailrace of the proposed plant. Modest changes to the channel would be made by digging out some of the re-growth, pools would be shaped, and cover would be maintained. Once completed, controlled flow from the tailrace through a pipe or diversion mechanism would ensure flow through the side channel at all times. A recent example of habitat re-creation was done by EDI and NND in a back channel by McIntyre Park as rearing habitat.</li> <li>• Mark asked if Yukon Energy is proposing on-going monitoring of the side channel.</li> <li>• Hector indicated that the team is not at that stage yet, although on-going monitoring by someone will likely be needed. Travis noted that currently there is no active Chinook salmon counting; however, it will be useful to understand if the enhancement channel is being effective.</li> <li>• Hector also noted that YEC is developing operating practices to ensure water flows/levels are reduced in stages (called ramping curves).</li> <li>• The size of the plant is being developed – currently, Yukon Energy is looking at a combined flow of 25 cms with a 10 MW plant: <ul style="list-style-type: none"> <li>○ 5-6 cms through the existing plant</li> <li>○ 19-20 cms through the proposed plant.</li> </ul> </li> </ul> <p><u>Water Conveyance Options:</u></p> <ul style="list-style-type: none"> <li>• Hector indicated that drilling and seismic work over the past summer and fall did not find bedrock at depths originally thought. In the area opposite Five Mile Lake, a layer of silt was much deeper, with bedrock 30 m below what was originally estimated. This means the tunnel would have to go very deep through this section and then back up as it heads SW towards the proposed plant. The deeper bedrock results in additional costs, higher risk and more complication in terms of operation.</li> <li>• Due to the above, the surface option of a combination penstock (buried pipe) and canal is being re-visited as a more favourable option. This option would include: <ul style="list-style-type: none"> <li>○ Buried pipe from the existing intake tunnel for the first section;</li> <li>○ This would convert to an open surface-run canal (same elevation as Wareham Lake) running along the land contours for about 2.5 km; and</li> <li>○ A steel penstock or buried pipe for the last section running down the ridge into the new plant (about 800 m).</li> </ul> </li> <li>• The canal is essentially an upside-down road construction project, with</li> </ul>
--	--

	<p>'cut and fill' along the ridge. The canal would be lined with a geotextile liner to make it waterproof. The liner is made to last indefinitely as it can also be repaired. There is less construction risk and potentially less cost to this option.</p> <ul style="list-style-type: none"> <li>• The canal water surface would be 30 m wide and 4 m deep to minimize head losses. It would be very slow moving.</li> <li>• To date, the crews have not found any permafrost along the proposed canal route; however, there would be additional geotechnical work next summer to confirm this, should the project proceed.</li> <li>• Concern was expressed about not disturbing Five Mile Lake – thought to be an underground fed lake; with possible lake level connection to Wareham Lake. Hector noted that there would be no changes to Wareham Lake. Currently, Yukon Energy operates Wareham Lake below its operating licensed maximum level, so there is room to raise the level slightly within the existing license. There would be no changes to the operating licensed limits at Wareham.</li> <li>• Blair asked about access to the Mayo River as there is some recreational fishing for Arctic grayling, whitefish and trout. Hector noted that Yukon Energy can't restrict access from the river; and there won't be any restrictions to access the river from the west side.</li> </ul> <p><u>Mayo Lake:</u></p> <ul style="list-style-type: none"> <li>• Hector explained that Yukon Energy has a current licensed operating range of about 2.5 m for power production. The upper limit is the top of the dam plus flashboards.</li> <li>• As part of the Mayo B Project, Yukon Energy is considering increasing the operating range by lowering the minimum license limit by up to one meter.</li> <li>• As there may be potential effects to fish populations if the full additional meter was used every year, Yukon Energy is looking at what the appropriate range would be and how often some or all of it would be used to ensure the fish populations are kept viable and healthy, and power production is also viable.</li> <li>• Historically, Mayo Lake's range was close to fully used when Keno mine was in full production. For the future, we are also assuming that Yukon Energy's two grids will be fully interconnected. This means that Yukon Energy is looking at managing the water in the lake based on the grid system as a whole; and is developing a number of scenarios through water modeling. Having an interconnected system provides the company with flexibility in the system as to where extra storage is used.             <ul style="list-style-type: none"> <li>○ Whitehorse plant is the first in order for use</li> <li>○ Mayo Lake provides annual storage and would be next</li> <li>○ Aishihik would provide the balance of renewable energy as it has multi-year storage</li> </ul> </li> <li>• The concern with extra storage at Mayo Lake is primarily a lake trout spawning issue. Lake trout spawn at Mayo Lake in average depths of 2-4 m, mostly near Gull Island. Lake trout prefer a wave-wash zone.</li> <li>• Lake whitefish were also studied this past summer – 16 were tagged</li> </ul>
--	---

	<p>with one mortality. Lake whitefish went up Edwards Creek to spawn – far enough up the creek to be outside the zone of influence of lake level changes.</p> <ul style="list-style-type: none"> <li>• The RRC noted that grayling go up Granite Creek in large numbers.</li> <li>• Hector reiterated that Yukon Energy would not go below their licensed limit when operating Mayo Lake; and wants to avoid exposing lake trout eggs to freezing if Mayo Lake levels were lowered. That is why a lot of effort is going into the water level modeling scenarios for the lake. Depending on the level of the lake in the fall spawning season, Yukon Energy is looking at drafting rules for use of the operating range to prevent harm to the lake trout.</li> <li>• The Yukon Water Board sets the water license limits. Yukon Energy files monthly water level reports to the Yukon Water Board as received from the water gauge stations maintained by Water Survey of Canada (federal government).</li> </ul>
<p>Questions asked or issues raised:</p>	<ul style="list-style-type: none"> <li>• Mark asked if Mayo Lake level rules could be written into a water license.             <ul style="list-style-type: none"> <li>○ Travis indicated that could be one option. Yukon Energy's objective is to protect the aquatic ecosystem while at the same time generating power. The Water Board can only write in rules that are enforceable. If one was to follow an adaptive management approach, this would have to be through a Fish Act Authorization (which can offer more flexibility).</li> </ul> </li> <li>• Mark asked if there is a plan to do more field work in 2009 to collect more data.             <ul style="list-style-type: none"> <li>○ Last summer's field work was quite extensive and is considered sufficient to file a Project Proposal with YESAB.</li> <li>○ Frank suggested there should be on-going monitoring.</li> </ul> </li> <li>• Frank noted that work camp numbers seemed to have increased. He would like to see more local young people trained to be involved in the construction and maintenance of these types of projects.             <ul style="list-style-type: none"> <li>○ Hector indicated that construction employment numbers will depend on the type of conveyance option chosen, the seasonality of the work and availability of local labour (skilled and unskilled) and contractors.</li> </ul> </li> <li>• Frank noted that the local community is concerned about social impacts of a large group of people coming into town (i.e., increased alcohol related incidents); and increased hunting pressure (already occurring due to closure of Southern Lakes area).             <ul style="list-style-type: none"> <li>○ Darielle noted it will be important to get more firm estimates of numbers of workers, when they would be on-site and for how long, and the types of skill sets required for various aspects of the Project.</li> <li>○ Hector indicated that the work camp is currently being planned at the location of the original Hydro plant work camp up on YEC property. Travis acknowledged there will be increased pressure for recreational activities such as fishing and hunting. It will be important to educate the workers about sensitivities to local resource use, and to promote respect for others, their community and the environment. Yukon Energy is considering a no firearms</li> </ul> </li> </ul>

	<p>policy for the camp; and will encourage the workers to use the local recreational programs available in the community.</p> <ul style="list-style-type: none"> <li>○ Yukon Energy asked if the RRC could identify other places for people to for example, fish to avoid potential conflicts with local fishers.</li> <li>● The group discussed the issue of outages, whether due to trees falling on a segment of the line or other substation related outages. Hector explained that line segments are isolated to prevent a system-wide outage; and protections are built into the system. In addition, communities have back-up diesel that is quickly available. Blair noted that Mayo has had the benefit of consistent power, unlike recent outage experiences in Whitehorse. People in Mayo don't want to experience those same outages due to an interconnected system. Hector confirmed it is a challenge for Yukon Energy to design against outages by protecting and isolating parts of the system and providing backup as needed.</li> </ul>
<p>Next Steps</p>	<ul style="list-style-type: none"> <li>● Yukon Energy's Project Team is working on completing consultation, collection of additional socio-economic information and water flow modeling over the next few weeks.</li> <li>● The goal is to file an Executive Committee Project Proposal to YESAB in March.</li> <li>● The first step in YESAB's process is to complete the Information Adequacy Review stage.</li> <li>● Yukon Energy is still looking for feedback from local stakeholders so concerns may be addressed prior to filing.</li> <li>● The earliest In Service Date for the Project is 2011 or 2012 – but the Project is dependent on federal funding to make the Project economic.</li> </ul>

**4D-4.3.2 Materials**

Copies of the posters and fact sheets used for the community meeting were also provided. See Appendix 4B-3.2.