
Appendix 2.2B Transmission Line Alternatives Presentation Notes

New Gold Draft Notes from October 1, 2013 Meeting with MOE and MFLNRO Regarding Transmission Corridor Options

MFLNRO suggested Greer Creek Option

Why couldn't New Gold follow the Kluskus FSR with the transmission line north to about Greer Creek and then traverse westward over country to link in to where the current Option 3b alignment is shown?

New Gold Response

This alignment was considered as part of our trade off study and noted as option 9 and drawn on the attached map. From the tradeoff study we noted the alignment is much longer (15 % longer), requiring an additional 20 km of line and incurring more cost and more disturbance, approximately 80 ha more clearing than the alignment proposed. Further this route would incur more private land crossing north of Greer Creek. Hence the proposed alignment was chosen and work to follow existing disturbance (~65 % on existing disturbance areas).

MFLNRO suggested Holy Cross Option

Follow Kluskus FSR north to Holy Cross south from Nithi River for as long as possible, and cross the Nechako further west than the proposed Option 3b and rejoin it around Big Bend Creek.

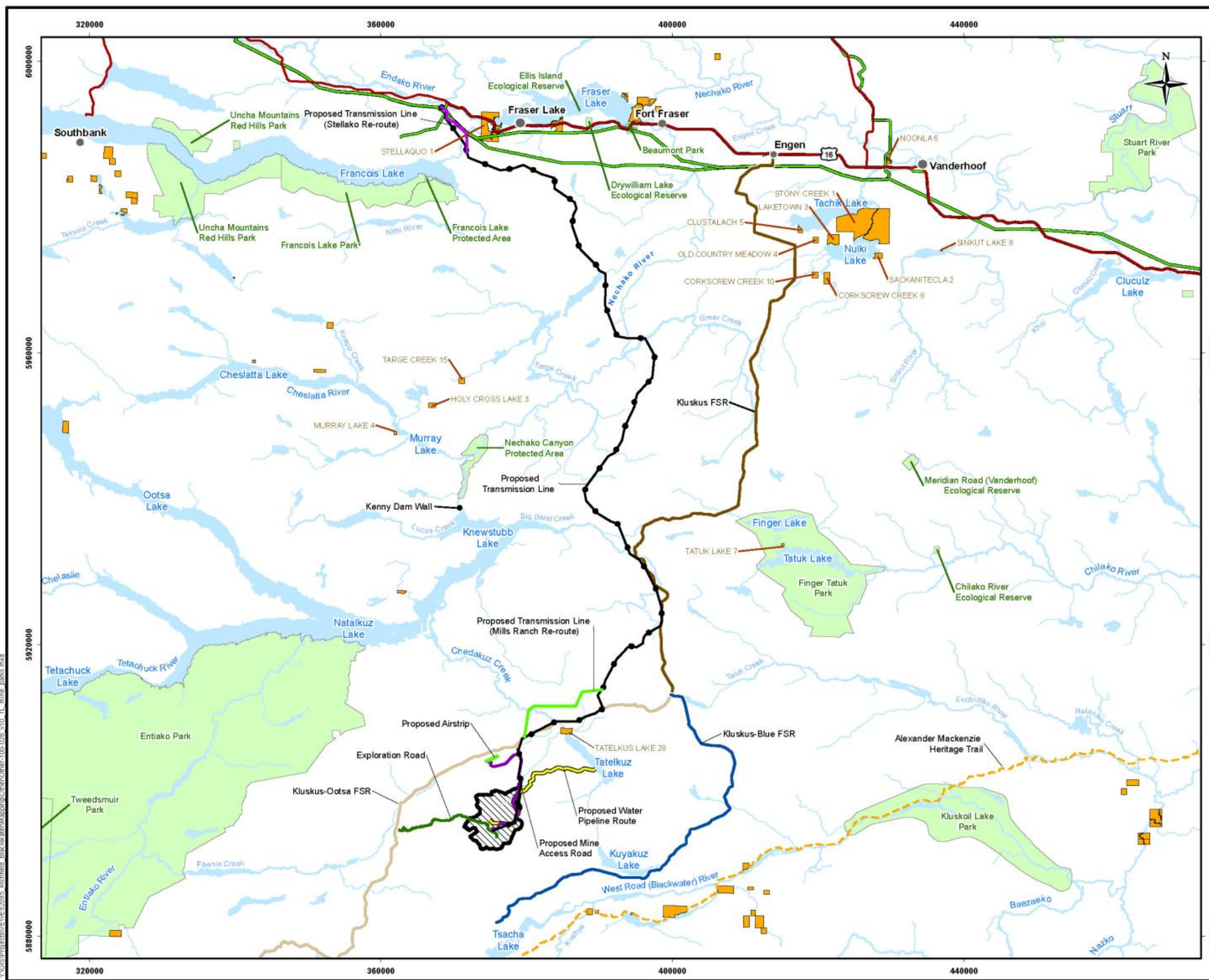
New Gold Response

We looked at that option. In comparison to our proposed route [3b]

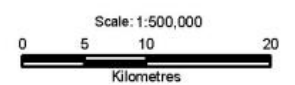
- The re-route would result in an increased line length of approximately 3.6km with associated costs
- There would be significant logistical constraints by following the Holy Cross FSR due to regular heavy logging traffic
- Additional environmental effects will be realized due the increased line length (3.6 km x 40m)
- Impacts to recreational values surrounding the Nechako Reservoir and private land would need to be addressed (the alignment to get to the would run east-west north of the reservoir)

Route 3b is shown on the attached figure.

DRAFT



- Legend**
- Populated Place
 - ▬ Highway
 - ▬ Kluskus FSR
 - ▬ Kluskus-Blue FSR
 - ▬ Kluskus-Ootsa FSR
 - ▬ Alexander Mackenzie Heritage Trail
 - ▬ Existing Transmission Line
 - ▬ Proposed Transmission Line
 - ▬ Proposed Transmission Line (Mills Ranch Re-route)
 - ▬ Proposed Transmission Line (Stellako Re-route)
 - ▬ Exploration Road
 - ▬ Proposed Mine Access Road
 - ▬ Proposed Water Pipeline Route
 - ▬ Stream
 - ▬ Waterbody
 - ▬ Parks & Protected Areas
 - ▬ Indian Reserve
 - ▬ Proposed Mine Site



Reference
BC Government GeoBC Data Distribution

CLIENT: **newgold**

PROJECT: Blackwater Gold Project

Location of Proposed Mine Site, Mine Access Road, Transmission Line, and Water Supply Pipeline

DATE: June, 2013	ANALYST: MY	Figure
JOB No: VE52277	QA/QC: LR	
GIS FILE: Other-100-028_v10_TL_mine_parks.mxd	DATUM: NAD83	amec
PROJECTION: UTM Zone 10		

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MEMO

To Ryan Todd, Tim Bekhuys
From Alvaro Paredes
Kathrin Kunzmann
Niki Cook
Tel +1 (604) 294-3811 **AMEC File No.** VE52277
Fax +1 (604) 294-4664 **Cc:**
Date 8 August 2013
Subject Rationale for Transmission Line Route Selection

1.0 INTRODUCTION

New Gold Inc. (New Gold) retained AMEC Environment & Infrastructure (AMEC) to conduct environmental services for the proposed Blackwater Gold Project (proposed Project), located approximately 110 km south of Vanderhoof, British Columbia (BC). The proposed Project will include the construction of an electrical transmission line required to power the proposed Blackwater mine. AMEC provided environmental and social input for the assessment of alternatives for the alignment of the transmission line.

2.0 SIX TRANSMISSION LINE ALTERNATIVES

Knight Piésold developed five alternative transmission line alignments (**Figure 2-1**) with a sixth option, which follows Option 3 but with different voltage:

- Option 1 – This ROW runs south and then west from the TAC Substation for approximately 135 km to the proposed Project, following existing logging roads and disturbances where possible. Approximately 11.4 km of this alignment would cross private property near Vanderhoof;
- Option 2 – Interconnection with BC Hydro 230 kV system would be achieved through a new substation located on line 2L353 to the west of Vanderhoof BC. This ROW runs south approximately 112 km to the proposed Project, following existing logging roads and disturbances where possible. Approximately 5.3 km of this alignment would cross private property near Vanderhoof;
- Option 3 – Interconnection would be at the Glennanon (GLN) Substation near Fraser Lake to BC Hydro's 230 kV system. This ROW runs east from the GLN Substation for approximately 19 km and continues south for another 114 km, following existing logging roads and disturbances to the Project where possible;

- Option 3A – Interconnection would be at the GLN Substation near Fraser Lake to BC Hydro's 138 kV system. This alignment follows the same ROW as Alternative 3;
- Option 4 – Interconnection with BC Hydro 230 kV system would be achieved through a new substation located on line 2L353 approximately 6 km to the west of the Alternative 2 proposed interconnection site. This ROW runs south approximately 114 km to the proposed Project, following existing logging roads and disturbances where possible and would avoid private parcels that are potentially affected by Alternative 2 described above; and
- Option 5 – The ROW was identified during the PEA update study as an alternative that would avoid private parcels that are potentially affected by Alternative 2 described above. Interconnection with BC Hydro 230 kV system would be achieved through a new substation located on line 2L353 approximately 17 km to the west of the Alternative 2 proposed interconnection site. This ROW runs south approximately 114 km, following existing logging roads and disturbances to the Project site where possible.

A ranking assessment was completed for the six transmission line options (**Table 2-1**). A comprehensive list of assessment criteria was developed to rank each alternative. Criteria were also chosen to satisfy each of the following categories:

- Technical;
- Environmental and social;
- Schedule; and
- Costs.

Each category was broken down into several criteria with the ranking assessment matrix (**Table 2-1**) and assigned a criterion ranking from 1 to 5 defined as follows:

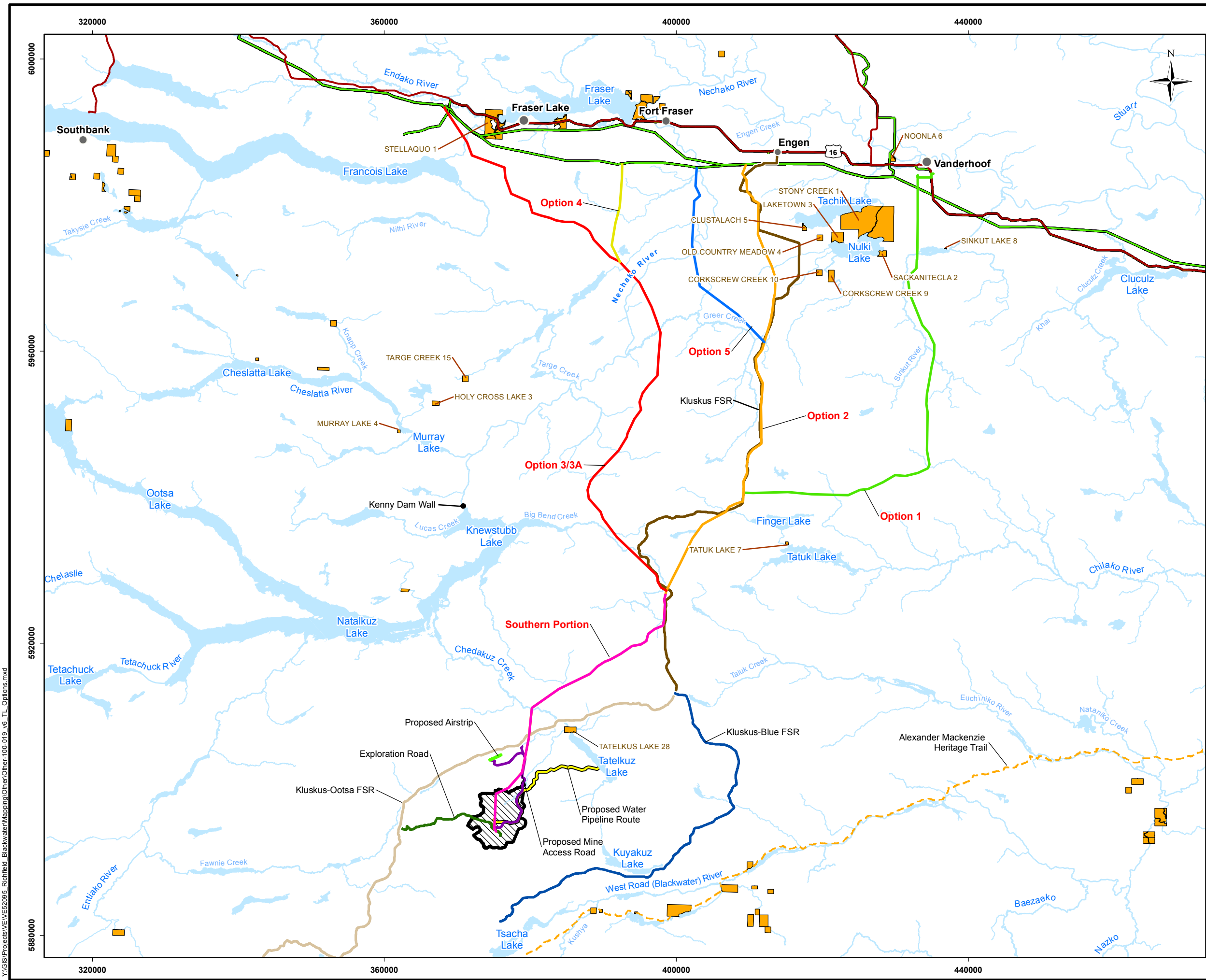
- 1 = Poor;
- 3 = Average; and
- 5 = Good.

Each of the four ranking assessment categories was also assigned a weighting between 0 and 1 based on the relative importance of each category over the others. The category weightings are defined as follows:

- Technical = 0.5 – Relative to the other categories technical viability is much more certain; however, there has been very little on the ground work completed to assess each alignment. A weighting of 0.5 has been chosen to accommodate on the ground uncertainties.



- Environmental and Social = 0.5 – This category has been regarded as very important relative to all other categories; therefore a higher rating has been assigned for this category.
- Schedule = 1.0 – This category has been regarded as very important relative to all other categories.
- Costs = 0.2 – The relative magnitude of costs associated with each option are closely linked to schedule and permitting. Although costs are a very important parameter they bear a lower risk when



Legend

- Populated Place
- Highway
- Kluskus FSR
- Kluskus-Blue FSR
- Kluskus-Ootsa FSR
- - - Alexander Mackenzie Heritage Trail
- Existing Transmission Line
- Proposed Transmission Line
- Exploration Road
- Proposed Mine Access Road
- Proposed Water Pipeline Route
- Stream
- Waterbody
- Parks & Protected Areas
- Indian Reserve
- Proposed Mine Site
- Proposed Transmission Line - Option 1
- Proposed Transmission Line - Option 2
- Proposed Transmission Line - Option 3/3A
- Proposed Transmission Line - Option 4
- Proposed Transmission Line - Option 5
- Proposed Transmission Line - Southern Portion

KEY MAP

Scale: 1:500,000

0 5 10 20 Kilometres

Reference
BC Government GeoBC Data Distribution

CLIENT: **newgold**

PROJECT: **Blackwater Gold Project**

Proposed Transmission Line Options

DATE: July, 2013	ANALYST: MY	Figure 2-1
JOB No: VE52277	QA/QC: LR	
GIS FILE: Other-100-019_v6_TL_Options.mxd		amec
PROJECTION: UTM Zone 10	DATUM: NAD83	

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Table 2-1: Transmission Line – Alternatives Assessment Ranking Matrix

CRITERIA	Weight (0-1)	OPTION 1	OPTION 2	OPTION 3	OPTION 3A	OPTION 4	OPTION 5
	Voltage	230kV	230kV	230kV	138kV	230kV	230kV
	Substation	Tachick	2L353 Tap	Glenannen	Glenannen	2L353 Tap	2L353 Tap
	Route Length	135km	112km	133km	133km	114km	114km
TECHNICAL	0.5						
Interconnection (technical difficulty)		5	2	5	3	2	2
Geotechnical Risk (foundation conditions)		1	3	3	3	3	4
Terrain Hazard Risk		4	5	3	3	3	2
Forest Road Crossings (height of line)		2	3	3	3	3	5
Reliability (electrical stability, potential for tree strike, etc.)		2	4	4	2	4	3
Weighted Category Rating		7.0	8.5	9.0	7.0	7.5	8.0
ENVIRONMENTAL AND SOCIAL	0.5						
First Nations		2	3	3	3	3	3
Vegetation Impacts (wetlands, old forest, species at risk and ecological communities at risk)		1	4	2	3	3	3
Wildlife Impacts		2	4	3	3	2	2
Aquatic Impacts		3	4	2	2	3	3
Proximity to Public Services		4	5	5	5	5	5
Land Acquisition		1	3	5	5	5	5
Weighted Category Rating		6.5	11.5	10	10.5	10.5	10.5
SCHEDULE	1.0						
EIA/Permitting		1	1	5	5	5	5
BC Hydro (permitting and construction)		5	1	5	5	1	1
Construction (function of length)		2	4	2	2	4	3
Weighted Category Rating		8.0	6.0	12.0	12.0	10.0	9.0
COSTS	0.2						
Interconnection		4	2	4	2	2	2
TL CAPEX		2	4	2	5	4	4
TL OPEX (includes line losses)		3	5	2	1	4	4
Plant Site Substation		2	2	2	4	2	2
Weighted Category Rating		2.2	2.6	2	2.4	2.4	2.4
TOTAL RATING		45	56	55	54	53	53
TOTAL WEIGHTED RATING		23.7	28.6	33	31.9	30.4	29.9
RANKING		6	5	1	2	3	4

Notes: Rating of issues/risks for each MDC from 1 to 5 where 1 is poor and 5 is good; 2. Weighting of each category is relative to all other categories; 3. Total rating is a summation of the individual rating of all criteria; 4. Total weighted rating is a summation of the category rating multiplied by the category weighting factor. From Knight Piésold Ltd. 2012 (PEA)

Option 1 received one unacceptable rating for socioeconomic considerations relating to land acquisition concerns, and was therefore rejected. Options 2, 4, and 5 received unacceptable ratings for ability to service the site effectively because of anticipated timing constraints related to new interconnecting substation requirements to tie into the BC Hydro grid. During consultations, BC Hydro expressed a strong recommendation for the transmission line terminus to be in Endako at the Glenannen Substation. Use of the Tachick Substation, as was proposed in Option 1, or tap ins to the existing 2L353 transmission line would require substation upgrades which would extend project timelines and require their own environmental assessment processes.

Option 1 crossed 11 km of private lands which affected its ranking in the cost and environmental and social categories. The length and route of this option had the highest amount of overprinting on wetlands, had the greatest effect on old growth forest and crossed a large amount of water courses. This option was therefore rejected.

Option 2 crossed 5 km of private lands resulting in additional cost for land acquisition. Option 2 also scored low in the schedule category because it would require new substation connections to the BC Hydro grid. The approval and construction of such substations is time consuming and is likely to unnecessarily extend the overall Project timelines, resulting in an anticipated overall delay in Project start-up. These factors contributed to the 5th place ranking of Option 2 and its rejection.

The Option 5 route passes through 14 km of difficult terrain affecting its scores in the technical and schedule categories of the assessment. As with Option 2, this alignment would require new substation connections to the BC Hydro grid resulting in lower schedule category ranking scores. The route, along with Option 1, overprints the highest amount of wetland habitats causing a reduced score in the environmental and social category. This option ranked 4th out of the 6 options.

The Option 4 route passes through 28 km of difficult terrain affecting its scores in the technical and schedule categories of the assessment. As with Options 2 and 5, this alignment would require new substation connections to the BC Hydro grid resulting in lower schedule category ranking scores. This option ranked 3rd out of the 6 options.

Option 3A was not retained for further detailed evaluation because 138 kV capacity was determined to be inadequate and unreliable for meeting all Project power needs and was therefore not carried forward into the more detailed alternatives assessment.

Knight Piésold, with input from New Gold and AMEC determined that Option 3 ranked highest in the alternatives assessment. This alignment option involves the construction of a 133-km, 230-kV transmission line to supply the proposed Project with power. The transmission line proposed right of way is 40 m wide and occupies approximately 550 ha. Option 3 crossed no private lands or difficult terrain reducing impacts to the technical, cost and environmental and social categories. The line would have an interconnection to the BC Hydro system at Glenannen Substation near Fraser Lake and not require new substation

connections or development. This Option has the least amount of overprinting of wetlands and intermediate overlap of old growth forest habitats. The combined scores under the technical, schedule, cost, and environmental and social categories led to Option 3 having the highest ranking of the six options and was therefore selected as the preferred route.

3.0 TRANSMISSION LINE ALIGNMENT CONSULTATION

The preferred transmission line alignment was submitted in the Project Description phase of the EA process. There are 30 stakeholders along the preferred transmission line alignment in four categories: guide outfitters, traplines, range tenures and private land parcels (**Table 3-1**). During the public consultation process New Gold held several public open houses within communities adjacent to the project area to convey project details to stakeholders and regulators and obtain feedback on the selected transmission line alignment. New Gold also proactively approached transmission line stakeholders to present the selected transmission line alignment to find out concerns.

Table 3-1: Transmission Line Stakeholder Summary

Stakeholder Type	Number of Stakeholders	Stakeholders	Stakeholder ID
Guide Outfitter	6	Hallett Lake Outfitters, Allen Ray	Cert. No. 701166
		Crystal Lake Resort, Daniel Brooks	Cert. No. 701156
		Pitka Mountain Outfitters, Colonel Anderson	Cert. No. 701137
		Moose Lake Lodge, John Blackwell	Cert. No. 600384
		Uncha Mountain Outfitters, Stefan Muehlmeier	Cert. No. 601048
		Batnuni Lake Guide and Outfitters, Lyle Barsby	Cert. No. 601039
Trapline	15	Allen Ray	TR0712T015
		Daniel Brooks	TR0712T043
		Steve K. Ray	TR0712T029
		Ernest J. Casimal	TR0712T040
		Alfred George	TR0712T036
			TR0712T037
		Alfred Vossen	TR0713T017
		Malcolm Downie	TR0711T006
		Gary George Joseph	TR0711T007
		Even Luggi	TR0712T039
		Ken W. Still	TR0601T006
		Irvine Herbert and Lloyd L. Sjodin	TR0721T014
		Rosie Cassam	TR0512T027
		Sandra Brough	TR0601T003
Chester Larson	TR0604T053		



Stakeholder Type	Number of Stakeholders	Stakeholders	Stakeholder ID
Range Tenure	8	Susan Steiner	RAN077238
		Chester Larson	RAN077234
		CNT Ranching, Craig Nugent	RAN077117
		Dykam Ranch and Woodlot, Doug Short	RAN077118
		Rim Rock Ranch, Jim Brophy	RAN075967
		Peter Lepoidevin	RAN075941
		Barry Mills	RAN075154
		Louis Geary	RAN077486
Private Land Parcel	1	Nature Trust	PID015135233

Stakeholders and regulators provided inputs on various aspects of the transmission line alignment and were taken into consideration for possible re-routes where necessary or applicable (**Table 3-2**).

Table 3-2: Transmission Line Alignment Concerns Raised by Stakeholders During the Consultation Process

Stakeholder Type	Stakeholder ID	Level of Engagement	Concern(s) Raised	Concern(s) Addressed by New Gold
Guide Outfitter	Allen Ray, Cert. No. 701166, Trapline TR0712T015; Hallett Lake Outfitters	Transmission Line Update Meeting (04/15/2013); Transmission Line Meeting (10/25/2012)	Move TL to avoid guiding and trapping trails and cabins used by these groups; Fought to keep road out of his guiding area, wants it left as prime hunting area; Requested that we consider following the 1100 road and cross his territory near the 1100 road bridge at the eastern end of Tahultzu Lake. He also asked us to stay within ¼ mile of Tahultzu Lake on the east side. He has a cabin about a ¼ mile east of the 1100 road at this location, and that as you move away from the lake the area gets quite swampy. The ideal spot to cross in consideration of his concerns and in terms of span length is likely alongside the 1100 road; Offered to show New Gold the location of his suggested re-routes	
Guide Outfitter/ Trapline Holder	Daniel Brooks, Cert. No. 701156, Trapline TR0712T043; Crystal Lake Resort	Meeting with Ryan Todd (10/16/2012); e-mail correspondence (10/16/2012 and 10/30/2012); Transmission Line Update Meeting (04/15/2013); Project introduction at the UNWC AGM (01/22/13)	Proximity of TL to his property and opening up new access to hunting areas in his guide-outfitting territory; Connecting the Kenny Dam Rd to East Swanson FSR allowing access to ATVs and hunters to his guide-outfitting territory; Avoid paralleling his road; Move TL west where it crosses Greer Creek; Avoid mountainous area near his home close to Mount Greer; Crossing the Kluskus FSR south of the Nechako is a no-go, it's fine to cross north of the Brophy property	Discuss 2 solutions: Move the TL further west away from the property or move route so that more of the TL is on the property giving Mr. Brooks control over access
Guide Outfitter	Colonel Anderson, Cert. No. 701137, Pitka Mountain Outfitters Ltd.	Letter to CEAA (01/19/2013); Transmission Line Update Meeting (04/15/2013); Meeting with Ryan Todd 11/14/2012	Portion of his territory south of the highway represents less than 20% of the area he uses; Opening up access to his territory to hunters; Would prefer the TL to follow existing roads and power lines to prevent creating new access; Happy with the proposed re-route north of Nithi Mountain, happy it's following existing roads; New Gold should consider Lepoidevin's range tenure in the re-route area; Avoid construction in the fall to minimize human activity/noise impacts to hunting and trapping activities	Re-route to go north of Nithi Mountain; Checked into Lepoidevin's range tenure with BC MFLNRO and the range is no longer active

Table continued ...



Stakeholder Type	Stakeholder ID	Level of Engagement	Concern(s) Raised	Concern(s) Addressed by New Gold
Guide Outfitter	John Blackwell, Cert. No. 600384, Moose Lake Lodge	Land Use Meeting (10/23/2012); E-mail correspondence (03/11/2013)	No concerns regarding project activities at this time, the mine area in his territory is heavily affected by mountain pine beetle and logging so there is nothing to protect	
Guide Outfitter	Stefan Muehlmeier, Cert. No. 601048, Uncha Mountain Outfitters			
Guide Outfitter	Lyle Barsby, Cert No. 601039, Batnuni Lake Guide and Outfitters	Project update phone calls (10/25/2012 and 11/19/2012); Meeting (11/26/2012)	Access from residential hunters and recreationalists coming into territory and scaring game; Tenure will become useless and would like New Gold to purchase this parcel	New Gold is not currently entering into compensation activities
Trapline	Steve K. Ray, TR0712T029	Transmission Line Update Meeting (04/15/2013)	Avoiding guiding and trapping trails and cabin where valuable goods are stored; Recommend re-routes	New Gold took suggestions to engineers to explore possible re-routes
Trapline	Ernest J. Casimal, TR0712T040	Telephone meeting (11/20/2012)	No major concerns as trapline as not been used in several years; Would like to be compensated; Would like the TL to parallel existing BC Hydro power lines	Proposed paralleling the existing BC Hydro power line
Trapline	Alfred George (Louie George and Sally Adolph), TR0712T036	Telephone conversations (11/29/2012 and 04/30/2013)	Not currently using the trapline but would like to know how their territory will be affected by the project; Forestry has removed most of the trees from their territory	
Trapline	TR0712T037			
Trapline	Alfred Vossen, TR0713T017	Telephone conversations and meeting requests (10/30/2012 and 04/03/2013)	As long as New Gold's activities are south of the Endako River, he has no concerns. No concerns over the re-routes.	Contacted him to set up meeting to discuss the TL alignment and to provide updated re-route information
Trapline	Malcolm Downie, TR0711T006			

Table continued ...



Stakeholder Type	Stakeholder ID	Level of Engagement	Concern(s) Raised	Concern(s) Addressed by New Gold
Trapline	Gary George Joseph, TR0711T007	Telephone conversations, meetings, drop in meetings (10/30/2012, 11/14/2012, 01/16, 2013, 01/22/2013, 03/18/2013 and 05/23/2013)	Family hasn't trapped in a few years due to fur prices and exploration activities scaring away the animals; Not using the trapline much; Do not want TL on the trapline for any reason; Would like a lease agreement for land use with New Gold; Concerns TL will provide additional access to ATVs and ski-dos; TL could have negative impacts on the hunting the family does in this area; Not satisfied that he has been consulted properly, feels his family members have been consulted, not him, wants to speak to someone with authority	New Gold conducted the intro meeting to introduce stakeholders to the project and transmission line and to get their feedback on the TL route; Route can be altered if stakeholders have concerns; No agreements will be entered with stakeholders at this point; Has Ryan Todd's contact information and he can contact him at any time and provide feedback; Provide him with map and have him accompany consultants on fieldwork in the summer
Trapline	Evan Luggi, TR0712T039	Meetings (11/14/2012 and 04/16/2013)	Robert Luggi Jr. Does not actively trap, hasn't for years, there is no money in it; No improvements have been made to this trapline (no cabins built or trails); Would like New Gold to follow existing roads and BC Hydro ROWs and provided a few alternative routes; Evan Luggi has been trapping this year and furs have been good; No concerns over the TL re-routes; Wanted to discuss compensation	Discussed suggested re-routes and provided them to engineering team, provided updated re-routes for discussion, precedent for compensation for trapline holders but not entering into these discussions at this point
Trapline	Ken W. Still, TR0601T006	Project introduction meeting, Transmission line update meeting (11/20/2012 and 04/17/2013)	Impacts of development to furbearers and wondered if studies would be conducted to determine these effects; Where the TL crosses his trapline is good marten and lynx trapping country; He often traps along existing roads; Financial impacts due to trapline; Re-route better for him but crossing his trapline anywhere will have some negative impact; Fur prices are good now due to the demand from China; Happy the TL follows roads through most of his trapline; Compensation	New Gold will follow up with AMEC about the furbearers; New Gold will wait for project approval before moving ahead with compensation

Table continued ...



Stakeholder Type	Stakeholder ID	Level of Engagement	Concern(s) Raised	Concern(s) Addressed by New Gold
Trapline	Irvine Herbert and Lloyd L. Sjodin, TR0712T014			
Trapline	Rosie Cassam, TR0512T027			
Trapline	Sandra Brough, TR0601T003	Project introduction meeting, Transmission line update meeting (11/30/2012 and 04/17/2013)	Some areas TL passes through are swampy and will be hard to maintain; Water quality in Chedakuz Creek and increased access to the area are her main concerns; The TL is a long way from her cabin so she has no problem with its location; Does a small amount of trapping to maintain her license but fur prices are so low, this is not a reliable source of income	
Trapline/Range Tenue	Chester Larson, TR0604T053, RAN077234	Project update meeting (10/31/2012)	Not concerned about impacts to his trapline but worried about effects to cattle and to his grazing areas; Fencing may be required in strategic areas to prevent cattle from wandering down hydro line	New Gold has re-routed the TL outside of this trapline and range tenure
Range Tenure	CNT Ranching Ltd., Craig Nugent, RAN077117	Project introduction meeting, Transmission Line update meeting (01/23/2013 and 04/16/2013)	Not strongly opposed to original TL alignment but would prefer so see it outside his range boundary and fenced; Increased access to ATVs, hunters, parties, campfires/fires on his property due to land clearing; Pleased to find out TL followed existing 1100 Rd; Could the line be changed to follow the south and west boundary of his range; Compensation for the cost of the fencing; Deeded properties to the south of his range	New Gold has re-routed the TL to outside the western edge of his range

Table continued ...



Stakeholder Type	Stakeholder ID	Level of Engagement	Concern(s) Raised	Concern(s) Addressed by New Gold
Range Tenure	Susan Steiner, RAN077238	Project update meeting, telephone conversation, transmission line update meeting (01/30/2013, 02/06/2013 and 04/16/2013)	South and east of Nolan Lake near border between Steiner and Larson ranges are rare grasslands BC MFLNRO concerned with protecting; Area to the south where the TL exits the range is very steep and opening up the area may create problems; Weed control and species used to revegetate; Clearing areas and how to contain their cattle; Have built fence with MFLNRO on north west of range worried TL will destroy this fence; Increased access, cattle guards may be required; Re-route proposed: move route to head east above Nithi Mountain then south following logging roads south to Foster Lake and tie in with the proposed line slightly north of Dorman Lake; Happy with this since logging and roads have opening up this area already; Very pleased with updated alignment but may still need to ensure no fence destruction and cattle guards	New Gold will provide an invasive weed management plan; Plants for revegetation will reduce access and be species which will not attract cattle and grazers; Changed alignment to head north of Nithi Mountain
Range Tenure	Dykam Ranch and Woodlot Ltd, Doug Short, RAN077118	Transmission Line update meeting (04/16/2013)	Area north of his private property is very swampy and might not be feasible for TL construction; Molybdenum entering waterways and poisoning cattle; Keeping cattle off the Kluskus FSR since his range is not fenced, fencing options discussed	Discussed fencing options; Molybdenum releases will be minimal and not of concern
Range Tenure	Rim Rock Ranch Ltd., Jim Brophy, RAN075967	Project introduction and Transmission Line update meeting (01/24/2013 and 04/15/2013)	Fencing and cattle guards may be required; Willing to offer suggestions for re-routes that will minimize the amount of fencing required and maximize the use of natural barriers; Cattle avoid transmission line areas; Line should not go over Mount Greer; Suggest using area near 31 Rd on the Kluskus which has already been opened up by mountain pine beetle; Containing cattle and noxious weed growth; Land values and saleability of property	Transmission line on son's property is much larger than the one proposed for this project; TL alignment will move south of Mount Greer and minimize area it extends through this range; Weed management plan
Range Tenure	Peter Lepoidevin, RAN075941, RAN073967	Transmission Line update meeting (04/23/2013)	Discussed in meeting with BC MFLNRO; Guide outfitter had brought up this tenure; Ranch tenure no longer active	

Table continued ...



Stakeholder Type	Stakeholder ID	Level of Engagement	Concern(s) Raised	Concern(s) Addressed by New Gold
Range Tenure	Barry Mills, RAN075154	Project update meeting (04/16/2013)	TL along the FSR will impact their airstrip; New Gold could "lease" the airstrip from them; Compensation; Cost of moving airstrip; Not worried about property devaluation	New Gold is looking at a variety of other sites; New Gold will look into the cost of moving the airstrip; Propose a route that passes north of the Mills tenure and above Doug Short's private property; Still in negotiations
Range Tenure	Louis Geary, RAN077486			TL will pass through Geary range tenure if alignment moved north around Mills tenure
Private Land Parcel	Nature Trust, Carl MacNaughton, PID 015135233, DL2556 R5C	Telephone conversation (03/20/13)	Is reviewing New Gold's proposed route through their property and hopes to have a response soon	New Gold would like to re-route the TL alignment through their parcel to cross the Stellako River at a new location proposed by BC MFLNRO to minimize disturbance to the Wildlife Management Area

Table continued ...



Stakeholder Type	Stakeholder ID	Level of Engagement	Concern(s) Raised	Concern(s) Addressed by New Gold
Provincial Government	BC Ministry of Forests, Lands and Natural Resource Operations	Meetings, e-mails ((04/17/2013, 12/13/2012)	May have concerns over the TL passing through the Chedakuz Creek area; TL crossing the Stellako River through a Wildlife Management Area, the Wildlife Act states that land in a WMA can't be used without written permission from the regional manager (the area is important sockeye spawning habitat and rainbow trout overwintering area); Preferred if TL ties into existing hydro ROW or parallel to an existing ROW so there is no new disturbance along the Stellako River; Grasslands on the south-facing slope of Nithi Mountain is a special and unique habitat and want to minimize impacts there (rare grassland may be present), it would be better to stay low along main roads; Similar values on south facing slope south-west of Mount Greer; The TL crossing of the Nechako Canyon is over steep terrain so may impact migrating raptors; Be sure to inform range tenure holders and give them a chance to comment on the alignment; Pleased with re-route on Steiner range tenure to north side of Nithi Mountain; Barry Mills is considering land near Suscha Lake area for grazing as compensation for range tenure reduction near the New Gold site; Alternate route north of Doug Short's property is very close to Sandra Brough's cabin and could negatively impact her range land, the BC MFLNRO supports the route along the Kluskus FSR; working on the approval process for WMA, New Gold should speak to Nature Trust about getting approvals to pass through their parcel; Change route to head north around Nithi Mountain then follow the logging roads south and tie in to proposed route north of Dorman Lake; Use fencing, cattle guards, and natural boundaries to control access and would prefer no new access routes through range tenures	Working with Nature Trust on possible re-route through their parcel; Re-route alignment north of Nithi Mountain away from sensitive habitat and range tenures; Re-route alignment away from south facing slope of Mount Greer and steep portions of the Nechako Canyon; Have communicated with range tenure holders through meetings, e-mails and telephone conversations and are taking concerns and re-route suggestions into consideration; New Gold still in negotiations with Mills family regarding the landing strip and alignment through the area

Note: ATV – all-terrain vehicle; BC MFLNRO – BC Ministry of Forests, Lands and Natural Resource Operations; FSR – forest service road; Rd – road; ROW – right-of-way; TL – transmission line; WMA – Wildlife Management Area

The consultation process raised several key concerns regarding the baseline transmission line alignment:

- Guiding and trapline tenure disturbance;
- Cattle ranch and cattle grazing disturbance; and
- Staying close to existing roads and BC Hydro ROWs;
- Access for current tenure holders being maintained while keeping destructive or disturbance creating recreational users limited; and
- Maintaining sensitive habitats.

The concerns raised during the consultation process resulted in 11 possible re-routes for segments of the preferred transmission line (**Table 3-3**). Some of the proposed re-routes were incorporated into the transmission line alignment while others were not. Negotiations are still taking place for two of the proposed re-routes: the Stellako River Crossing and the Mills Ranch re-route. **Figure 3-1** shows the original Option 3 transmission line alignment as well as the incorporation of the accepted re-routes and the re-routes which are currently being negotiated.

Table 3-3: Transmission Line Alignment Proposed Re-Routes with Justifications for Final Alignment Recommendations

Re-Route Number	Re-Route Description	Advantages of Re-Route	Disadvantages of Re-Route	Recommendation for Final Alignment
1	Follow BC Hydro ROW		Several private parcels would need to be crossed to follow the proposed route	Follow the preferred alignment in this area
			The re-route would be approximately 3 km longer than the preferred route	
			The longer length may result in greater technical and environmental impacts	
			The capital cost would increase by approximately \$960,000 due to the longer length	
2	Cross Stellako River at BC Hydro ROW	Would help reduce visual and aquatic life impacts	Private parcel held by the Nature Trust will need to be crossed in order to realise the benefits noted	Follow the preferred alignment due to the potential issues associated with crossing the Nature Trust parcel. New Gold has been in contact with the Nature Trust in order to determine a solution for crossing their parcel.
			The re-route would be approximately 1.1 km longer than the preferred route	
			The capital cost would increase by approximately \$350,000 due to the longer length	
3	Shift alignment north of Nithi Mountain	Several existing roads and favourable ground conditions along the re-route will help to make construction easier	The re-route would be approximately 2.2 km longer	Follow the re-route to the north of Nithi Mountain
		The capital cost would decrease by approximately \$260,000 due to better construction conditions		

Table continued ...



Re-Route Number	Re-Route Description	Advantages of Re-Route	Disadvantages of Re-Route	Recommendation for Final Alignment
4	Shift alignment west to avoid ranch tenure area	Access to the re-route alignment would be reduced by moving the alignment away from existing access	The re-route would be approximately 1.1 km longer	Follow the alignment presented in re-route number 3
			Impacts to sensitive habitats and wetland complexes would be introduced	
			The capital cost would increase by approximately \$120,000 due to longer length	
5	Shift alignment west to avoid grassland/bushland	This alignment will help mitigate impacts to the rancher and to the sensitive habitats	The re-route would be approximately 0.6 km longer	Follow the alignment presented in re-route number 3
			The capital cost would increase by approximately \$255,000 due to longer length	
6	Move alignment to north end of Tahultzu Lake to avoid guide outfitter tenure	This alignment would help mitigate impacts to the guide outfitter and to the mature forested area	The re-route would be approximately 0.3 km longer	Follow this re-route option even though there is an increase in cost
			The capital cost would increase by approximately \$96,000 due to longer length	
7	Move alignment west to avoid mature forest and sensitive south facing slopes	The re-route would be approximately 0.3 km shorter	At least one private parcel would need to be crossed	If an easement over the private land parcel can be successfully negotiated, this re-route option should be followed due to the significant cost savings
		This alignment would help mitigate impacts to the mature forested area and sensitive south facing slopes		
		The capital cost would decrease by approximately \$1,013,000 due to the shorter length and better construction conditions		
8	Move alignment west to avoid mature forest and sensitive south facing slopes	This alignment would help mitigate impacts to the mature forested area, sensitive south facing slopes, and impacts to private property	The re-route 8A would be approximately 1.9 km longer	Follow re-route option 8A due to the significant cost savings
		The capital cost would decrease by approximately \$596,000 due to the better construction conditions	The re-route 8B would be approximately 2.4 km longer	

Table continued ...

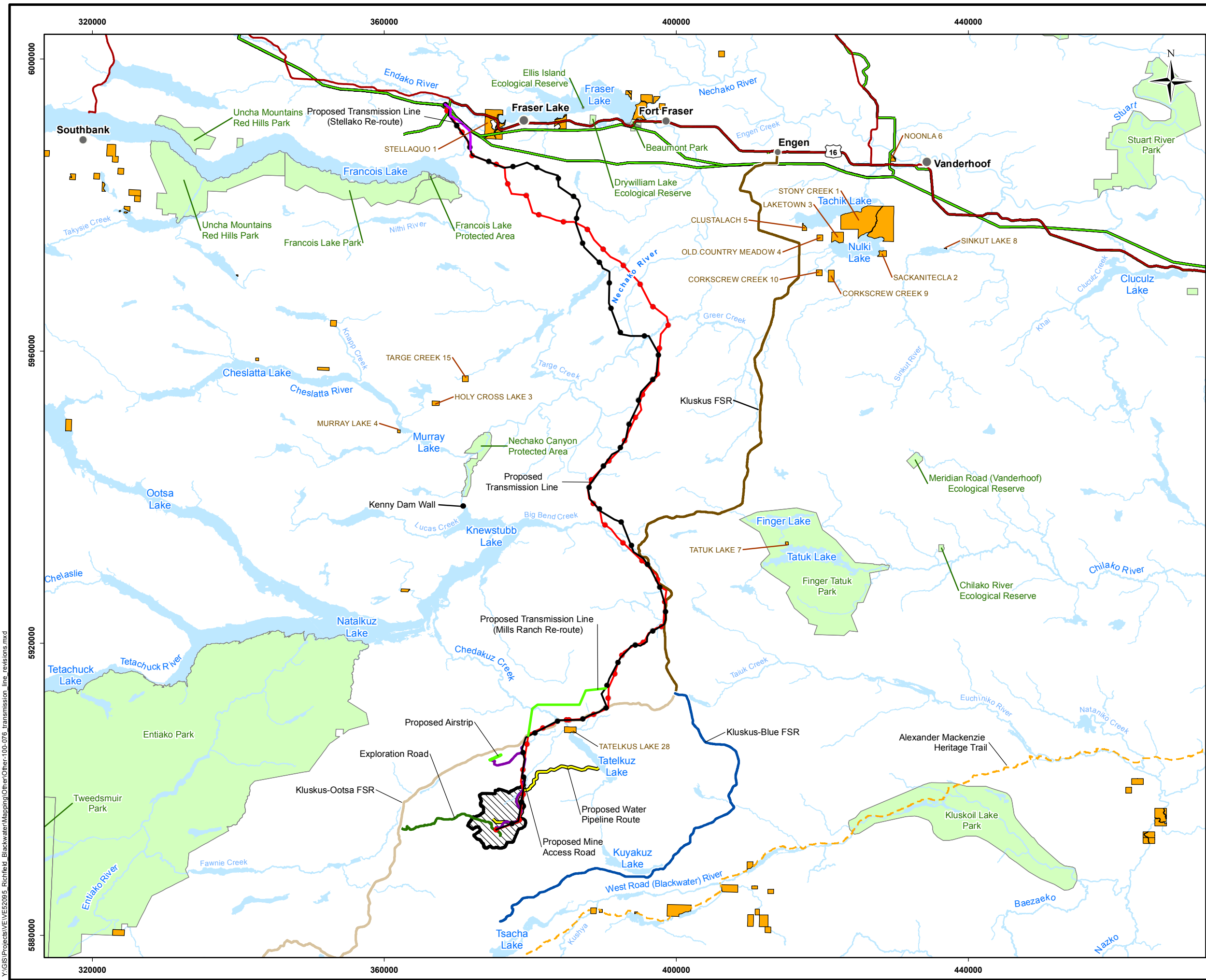


Re-Route Number	Re-Route Description	Advantages of Re-Route	Disadvantages of Re-Route	Recommendation for Final Alignment
9	Follow Kluskus FSR and avoid wetland complexes to north of Tatelkuz Lake	This alignment would help mitigate impacts to wetland complexes and be easier to construct	The re-route would be approximately 1.5 km longer	If an agreement with the Mill's Ranch can be negotiated, follow this route due to the significant cost savings
		The capital cost would decrease by approximately \$577,000 due to the better construction conditions	Special design considerations will be required to help mitigate airstrip sterilization	
			This alignment will need to be routed through a narrow strip of crown land between two private parcels that is 30 m wide and 60 m long	
10	Follow Kluskus FSR from Mt. Greer south		The re-route would be approximately 20.8 km longer	Follow the preferred alignment due to the significant cost savings
			There would be significant logistical constraints by following the Kluskus FSR due to regular heavy logging traffic	
			Additional environmental impacts will be realized due to increased line length	
			The capital cost would increase by approximately \$5,466,000 due to longer length	

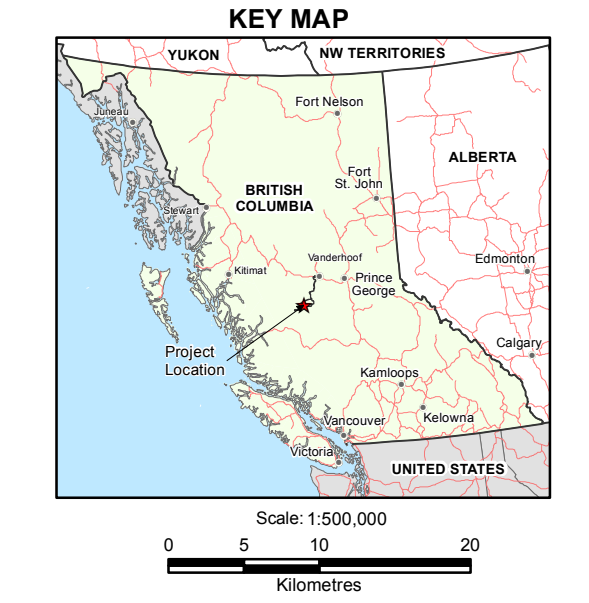
Table continued ...



Re-Route Number	Re-Route Description	Advantages of Re-Route	Disadvantages of Re-Route	Recommendation for Final Alignment
11	Follow Holy Cross FSR from Nithi River south		<p>The re-route would be approximately 3.6 km longer</p> <p>There would be significant logistical constraints by following the Holy Cross FSR due to regular heavy logging traffic</p> <p>Additional environmental impacts will be realized due to increased line length</p> <p>Impacts to recreational values surrounding the Nechako Reservoir and private land would need to be addressed</p> <p>The capital cost would increase by approximately \$1,152,000 due to longer length</p>	Follow the preferred alignment due to the significant cost savings



- Legend**
- Populated Place
 - ⬮ Highway
 - Kluskus FSR
 - Kluskus-Blue FSR
 - Kluskus-Ootsa FSR
 - - - Alexander Mackenzie Heritage Trail
 - Existing Transmission Line
 - Proposed Transmission Line (Option 3)
 - Proposed Transmission Line (May 2013)
 - Proposed Transmission Line (Mills Ranch Re-route)
 - Proposed Transmission Line (Stellako Re-route)
 - Exploration Road
 - Proposed Mine Access Road
 - Proposed Water Pipeline Route
 - Stream
 - Waterbody
 - Parks & Protected Areas
 - Indian Reserve
 - Proposed Mine Site



Reference
BC Government GeoBC Data Distribution

CLIENT: **newgold**

PROJECT: **Blackwater Gold Project**

2012 Transmission Line Alignment with 2013 Re-routes

DATE: July, 2013	ANALYST: MY	Figure 3-1
JOB No: VE52277	QA/QC: LR	PDF FILE: Other-100-076_transmission_line_revisions.pdf
GIS FILE: Other-100-076_transmission_line_revisions.mxd		amec
PROJECTION: UTM Zone 10	DATUM: NAD83	

Y:\GIS\Projects\VE\VE52277 - Rightline - Blackwater\Mapping\Other\Other-100-076_transmission_line_revisions.mxd

4.0 TRANSMISSION LINE ALIGNMENT OPTION 3B

Stakeholder consultation has resulted in a preferred transmission line alignment which will be referred to as Option 3B. This alignment was evaluated in the same manner as the original 6 proposed options as seen in **Table 2-1**. When evaluated in terms of technical, environmental and social, schedule and cost categories, Option 3B ranks the highest of the seven alignments (**Table 4-1**). This ranking takes into account the re-routes to avoid sensitive habitats, stakeholder land parcels and re-routes through areas which have been disturbed previously and which will facilitate construction. Over 70% of this alignment is along pre-existing roads and disturbances.

Table 4-1: Transmission Line – Alternatives Assessment Ranking Matrix

CRITERIA	Weight (0-1)	OPTION 1	OPTION 2	OPTION 3	OPTION 3A	OPTION 3B	OPTION 4	OPTION 5
		Tachick	2L353 Tap	Glenannen	Glenannen	Glenannen	2L353 Tap	2L353 Tap
		Route Length	135km	112km	133km	133km	140km	114km
TECHNICAL	0.5							
Interconnection (technical difficulty)		5	2	5	3	5	2	2
Geotechnical Risk (foundation conditions)		1	3	3	3	3	3	4
Terrain Hazard Risk		4	5	3	3	3	3	2
Forest Road Crossings (height of line)		2	3	3	3	2	3	5
Reliability (electrical stability, potential for tree strike, etc.)		2	4	4	2	4	4	3
Weighted Category Rating		7	8.5	9	7	8.5	7.5	8
ENVIRONMENTAL AND SOCIAL	0.5							
First Nations		2	3	3	3	3	3	3
Vegetation Impacts (wetlands, old forest, species at risk and ecological communities at risk)		1	4	3	3	4	3	3
Wildlife Impacts		2	4	3	3	4	2	2
Aquatic Impacts		3	4	2	2	2	3	3
Proximity to Public Services		4	5	5	5	5	5	5
Land Acquisition		1	3	5	5	5	5	5
Weighted Category Rating		6.5	11.5	10.5	10.5	11.5	10.5	10.5
SCHEDULE	1							
EIA/Permitting		1	1	5	5	5	5	5
BC Hydro (permitting and construction)		5	1	5	5	5	1	1
Construction		2	4	2	2	3	4	3
Weighted Category Rating		8	6	12	12	13	10	9
COSTS	0.2							
Interconnection		4	2	4	2	4	2	2
TL CAPEX		2	4	2	5	3	4	4
TL OPEX (includes line losses)		3	5	2	1	2	4	4
Plant Site Substation		2	2	2	4	2	2	2
Weighted Category Rating		2.2	2.6	2	2.4	2.2	2.4	2.4
TOTAL RATING		45	56	55	54	59	53	53
TOTAL WEIGHTED RATING		23.7	28.6	33	31.9	35.2	30.4	29.9
RANKING		7	6	2	3	1	4	5

Notes: 1. Rating of issues/risks for each MDC from 1 to 5 where 1 is poor and 5 is good; 2. Weighting of each category is relative to all other categories; 3. Total rating is a summation of the individual rating of all criteria; 4. Total weighted rating is a summation of the category rating multiplied by the category weighting factor.