Mackenzie Valley Environmental Impact Review Board

Our File: **EA0809-003**

September 12, 2008

Tyhee NWT Corp – Yellowknife Gold Project Distribution List

RE: YGP Comparative Documents in Preparation for October Scoping Sessions

Tyhee NWT Corp. (the "Developer") has produced two documents to facilitate the review of their 2008 Project Description Report (PDR) for the Yellowknife Gold Project (YGP). In preparation for the upcoming YGP scoping sessions in October, the Review Board invites members of the YGP EA Distribution List to review the posted documents, also available on the Review Board's public registry at www.mveirb.nt.ca/registry.

The first document is a brief summary of what has changed from the previous 2005 project design. The second document outlines what points from the 2005 YGP EA Terms of Reference that Tyhee has addressed in their recent PDR, and what items will be addressed in the Developer's Assessment Report (DAR). Thirdly, the 2005 YGP EA Terms of Reference will also be posted for viewing and comparison.

During the scoping sessions, affected parties will be asked if they believe the Developer has adequately addressed certain issues in the YGP PDR, or if further analysis and discussion are needed in the DAR.

Correspondence related to this environmental assessment should be directed to:

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The MVEIRB office can also provide copies of the Project Description Report on request.

Sincerely,

Paul Mercredi Environmental Assessment Assistant Mackenzie Valley Environmental Impact Review Board

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Comparison of Scope for 2005 and Present Project

Scope Item	2005	2008		
Mining Process				
Development of underground workings, portals, adits, raises, drifts, stopes and all other mine workings;	Underground operation only 8 Year Mine Life	Open Pit for ~ 3 years and then underground 8-13 years dependent on production rate		
Management of topsoil, waste rock and overburden stockpiles, including associated water treatment and management;	Waste Rock Volume ~12 million tons	Waste Rock Volume ~15 million tons		
Management of ore stockpiles, including associated water treatment;	No Change	No Change		
Storage and use of explosives;		Higher use overall, no change in storage and handling practices		
Management of rock with potential for metal leaching / acid rock drainage (ML/ARD);	No Change	No Change		
Transportation of ore from Ormsby Zone or Nicholas Lake deposits to the process plant;		Winter Road from Nicholas Lake. to Ormsby		
Mine dewatering and treatment of mine water; and	No Change	No Change		
Mining equipment and operation.	Underground	Open pit and underground		
Milling Process				
Construction and operation of the process plant;	1,500 tonnes/day	2,500 to 4000 tonnes /day capability		
Consumption of fresh water from Giauque Lake.	132,538 m³/year	253,700 m³/year (mill and camp)		
Storage, handling, use, and disposal of process chemicals;	No Change	No Change		
Disposal of process water and tailings; and	Winter Lake TCA with polishing pond	Winter Lake TCA		
Construction and operation of tailing containment area, including recycling and disposal of process water, as well as its' treatment and discharge to the receiving environment.	_	Discharge to environment maximum 312,000 m³/year (2500 tpd-wet year)		

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Comparison of Scope for 2005 and Present Project

Scope Item	2005	2008
Support/Ancillary Eacilities and	A stivition	
Support/Ancillary Facilities and		INI CI
Transportation activities that support the YGP's operation, including use of	No Change	No Change
the winter road for YGP specific support activities;	N. 61	
Expansion of the winter road for the purpose of supporting YGP operations;	No Change	No Change
Construction and use of all-weather roads;	No Change	No Change
Stream crossings and any proposed modifications to water courses;	No Change	No Change
Construction and use of drainage control structures;	No Change	No Change
Development and use of borrow sources for aggregate production;	No Change	No Change
Construction and operation of power plant and transmission infrastructure;	Power consumption –	Power consumption ~ 8
	6.5 MW	MW
Construction and operation of the change house, compressor house, offices,	No Change	No Change
warehouses, storage yards, maintenance shops, laboratory and all other		
support buildings;		
Construction and operation of hydrocarbon storage and handling facilities;	Capacity 12 million	Capacity ~16,million liters
	liters at Ormsby	at Ormsby and `~4 million
	,	liters at Nicholas Lake
Construction and operation of camp facilities;	No Change	No Change
Treatment of camp wastewater at Ormsby Zone and Nicholas Lake	No Change	No Change
developments;		
Solid and hazardous management and construction and operation of	No Change	No Change
containment areas; and		J
Modifications and operation of an existing; airstrip or construction and	Possibly new airstrip	Plan to use existing airstrip.
operation of a new airstrip,	location on esker	No alternatives considered
	south of Ormsby	at this time. Discussions
	,	with INAC -CARD to
		continue throughout the
		review process.

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Comparison of Scope for 2005 and Present Project

Scope Item	2005	2008
Closure and Recla	mation Activities	
Removal of structures and equipment;	No Change	No Change
Reclamation of the Tailings Containment Area (TCA);	Winter Lake and	Part of Winter Lake will be
	polishing pond	dewatered. Upon closure,
		could be filled with water.
Reclamation of the road network;	No Change	No Change
Reclamation of infrastructure foundations;	No Change	No Change
Re-vegetation of areas affected by mining-;	Underground	Plan to be developed
· · ·		related to open pit and
		underground operations
		subject to final conditions-
		to be prepared for DAR
Reclamation of waste rock and overburden piles.	No Change	No Change
Reclamation of the airstrip, roads, tailings cap and quarries.	No Change	No Change

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Content of 2005 EA Terms of Reference	Location in 2008 PDR
A Summary	
1. Provide a plain language, non-technical summary of the DAR	*
2. Provide an audio translation of the plain language summary in the Dogrib language;	*
3. Provide a table that cross references the items in the ToR with relevant sections of the DAR.	*
B Developer	
Provide the following information regarding Tyhee NWT Corp:	
a. The company's corporate history;	*
b. A discussion of the provision of financial security for government liabilities etc.;	*
 c. A description of the corporate and individual responsibilities including relation ship between Tyhee Development Corp and Tyhee NWT Corp; 	*
d. A description of the relationship between Thee and its sub contractors and details of how Tyhee will ensure the contractors will be responsible for Tyhee commitments;	*
e. A detailed record of the environmental performance of the company and its contractors during exploratory work in support of the Development; and	*
f. Any policy, directives or terms of reference concerning Tyhee's Environmental, Health and Safety Committee.	Sec 1.3
C Description of the Existing Environment	
1. Air, Noise and Climate;	Sec 3.4, 3.5, 3.6
2. Site hydrology	Sec 2.13 and 3.9
3. Surface, ground water and mine water quality and quantity;	Sec 3.10 and 3.11

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1	4. A	Aquatic resources and habitat;	Sec 3.12
	5. W	Vildlife and wildlife habitat, including migratory birds;	Sec 3.13
	6. V	Vegetation and plant communities;	Sec 3.7
	7. T	errain, surficial geology, structural geology, bedrock geology, seismicity and permafrost,;	Sec 2.5
	8. P	hysical make up of soils and sediments including those from Giauque Lake.	Sec 3.12 and 3.7
		ocio-economic conditions, including social services infrastructure for the potentially-impacted ommunities;	*
	10. H	listoric and present land usage; and	Sec 3.2 and 3.14
	11. C	Cultural and heritage resources.	Sec 3.14
D	De	evelopment Description	
D		evelopment Description All existing or proposed access roads in the project area;	Sec 2.14.6
D	1. A		Sec 2.14.6 Sec 2.7
D	1. A 2. A pi 3. A	All existing or proposed access roads in the project area; Aggregate sources that Tyhee intends to utilize for construction, operational and reclamation	
D	1. A 2. A pi 3. A co bo	All existing or proposed access roads in the project area; Aggregate sources that Tyhee intends to utilize for construction, operational and reclamation urposes. A description of the solid and hazardous waste facilities, which should provide their location, onceptual designs of the facilities and an estimate of the volume of material that can reasonably	

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	6. A description of the process plant and milling facilities and support infrastructure;	Sec 2.11
	7. A full description of infrastructure proposed for the Nicholas Lake development, including camp facilities and water treatment considerations;	*
	8. A description of water intake infrastructure to be located at Giauque Lake;	*
	9. A description of an airstrip suitable to support the operational mine	Sec 2.14.2
	10. A description of water management structures, including preliminary plans of diversion and water treatment structures;	*
	11. A description of the types of explosive to be used, their storage, handling and application; and	Sec 2.8
	12. A description of human resource requirements and details concerning proposed work scheduling.	Sec 2.15
	13. An estimation of mine life including construction, operation, post-mining closure and reclamation.	Sec. 2-10
E	Alternatives	
	1. Provide a detailed evaluation and comparison of TCA alternatives to Winter Lake, including an evaluation of other alternatives in combination with paste backfill of the underground workings;	*
	2. Evaluate the possibility of using alternate milling processes that would not require the use of cyanide, including a discussion of the properties of the ore, originating from both the Ormsby Zone and the Nicholas Lake deposit and their suitability to various technologies.	*
	3. Evaluate alternatives, such as rock crushing, to produce aggregate other than developing local esker formations;	*
	4. Evaluate alternatives to transporting ore from Nicolas Lake to the process plant other than by all-season road;	*

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5. Evaluate alternative locations of the airstrip, other than on the Discovery	Mine tailings cap; *
6. Evaluate alternatives to diesel power generation, with particular consider electric power; and	ration to utilizing hydro- *
7. Evaluate alternatives to the winter resupply road, such as using the existing	ng Lupin Mine road; No longer relevant
8. Discuss alternative employee work schedules and living conditions while	on site.
 Evaluate alternative mine development schedules which include the tin mill the currently-estimated ore reserve. 	ne required to mine and *
F Public Consultation	
 In addition to identifying consultation dates, individuals and organizati discussion topics, as noted in Appendix G of the <i>Project Description</i> reference the following: 	
a. Methods used to identify, inform and solicit input from potentially-i	interested parties; Sec. 4
 All commitments and agreements made in response to issues rais these consultations, and how these commitments altered the desig and 	
 c. All issues that remain unresolved, and document any further ef parties to resolve them. 	fforts envisioned by the *
 Identify any plans, strategies or commitments of Tyhee, alone or in congroup, to maintain consultation ties in a set forum during the EA process of the YGP. 	
 A discussion of Tyhee's consultation plan that specifically focuses on ho rights in the project area. 	lders of aboriginal treaty *

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4. A discussion of how Tyhee intends to engage the traditional knowledge holders	Sec. 3.14 and Sec. 4
G Assessment Boundaries	
I. A rationale for Tyhee's establishment of spatial boundaries for the assessment of potential impacts noted in the following sub-sections. The spatial boundary should be appropriate to the nature of each impact. Where the spatial assessment boundaries differ from the Scope of Assessment established in this ToR, please provide a rationale to explain the difference.	*
II. A rationale for setting the temporal boundaries for the assessment of impacts noted in the following sub-sections. The temporal boundary should be appropriate to the nature of each potential impact.	*
H Human Environment	
H-1 Economy:	
Direct Employment	
1. Provide a listing of all employment requirements by skills category over the life of the YGP.	Sec 2.15
2. Conduct an assessment labor pool at varying geographic scales;	*
3. Provide information on any identified barriers to employment, advancement and retention for Northern workers (with particular emphasis on residents of potentially-impacted communities), including minimum skill requirements, availability of employees, and lack of training opportunities for community members.	*
4. Discuss Tyhee's strategies, plans or commitments with respect to maximizing the proportion of YGP employment that accrues to NWT residents, aboriginal persons, and residents of potentially-impacted communities.	*

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Assess the requirements for any training, education, and other improvements necessary to maximize employment of residents of potentially-affected communities in the workforce of the mine.	*
s Development	
Provide an estimate of required contractor and sub-contractor goods and services required;	*
Identify and assess the opportunities for local, regional and territorial businesses to supply the required goods and services, both directly to the proposed development, as well as to meet new demand created by economic growth spurred by the YGP.	*
Access the requirements for any training and education or other improvements necessary to maximize engagement of business	*
Assess how the YGP will contribute to opportunities to diversify the economic base at the local, regional and territorial level. New local and regional economic development associated with the YGP, including the production and supply of new goods and services, should be included in this assessment.	*
Assess how the Development will help prepare potentially-affected communities for the eventual transition to a post-mining economy, and the ability to withstand future economic fluctuations.	*
ution of Positive and Negative Economic Impacts	
List estimates of all identified predicted economic affects, both positive and negative, stemming from the YGP, including but not limited to:	
a. Gross revenues and expenditures related to all phases of the YGP, including the commodity price assumptions underlying project valuation estimates;	*
b. Federal, territorial and municipal taxes remitted, by Tyhee and from linked economic development, including the impact of commodity price fluctuations;	*
	maximize employment of residents of potentially-affected communities in the workforce of the mine. So Development Provide an estimate of required contractor and sub-contractor goods and services required; Identify and assess the opportunities for local, regional and territorial businesses to supply the required goods and services, both directly to the proposed development, as well as to meet new demand created by economic growth spurred by the YGP. Access the requirements for any training and education or other improvements necessary to maximize engagement of business Assess how the YGP will contribute to opportunities to diversify the economic base at the local, regional and territorial level. New local and regional economic development associated with the YGP, including the production and supply of new goods and services, should be included in this assessment. Assess how the Development will help prepare potentially-affected communities for the eventual transition to a post-mining economy, and the ability to withstand future economic fluctuations. Intion of Positive and Negative Economic Impacts List estimates of all identified predicted economic affects, both positive and negative, stemming from the YGP, including but not limited to: a. Gross revenues and expenditures related to all phases of the YGP, including the commodity price assumptions underlying project valuation estimates; b. Federal, territorial and municipal taxes remitted, by Tyhee and from linked economic

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c. Employment numbers, including a prediction of employment multipliers, and estimated impacts on employment levels in potentially-impacted communities;	*
d. Predicted increases in local income and disposable income levels;	*
e. Information of what potential effects the YGP will have on local and regional inflationary pressures and cost of living;	*
f. Any increases in physical and social service infrastructure predicted to be required as a result of the YGP; and	*
g. Possible impacts of the YGP on other types of economic activity occurring in the potentially-impacted area, with emphasis on the traditional economy.	*
2. For each of the items listed above, estimate how the economic impacts identified will be distributed among potentially-impacted communities. An estimate is required of how much of the economic benefit of the Development will accrue to the potentially-affected communities, the NWT, and other Canadian jurisdictions, as well as among all identified potentially-affected communities.	
 Assess the economic impacts of in- and out-migration among potentially-affected communities in the North Slave and Tlicho regions. 	*
4. Assess any pressures on organizations and businesses servicing the region, including those who maintain infrastructure or provide social services caused by:	*
 a. The mobilization labor away from potentially- affected communities to the YGP workforce. 	*
 Socio-economic effects associated with increasing disposable income and a large reliance on the wage economy. 	*
5. Assess any particular sub-populations within potentially-impacted communities that are more vulnerable to any of the discussed potential economic impacts.	*

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	6.	Identify lessons learned from economic impacts of previous mines developments in the NWT and the North, etc;	*
	7.	For each of the above, include any plans, strategies or commitments designed to mitigate the identified negative impacts.	*
H-2		Society and Culture	
	1.	Community/population health and associated indicators such as;	
		a. Alcohol and drug use	*
		b. Family violence,	*
		c. Housing pressures,	*
		d. Educational access and education completion levels.	*
	2.	The physical, mental, spiritual and cultural health of mine workers and mine workers' families.	*
	3.	The existing and required social services networks that will support community health and wellness.	*
	4.	The of this and other past present and reasonably foreseeable developments on the political development, social development, cultural values, traditions and language among potentially-affected communities;	*
	5.	For each identified potential impact, describe how the YGP may impact valued social and cultural components:	
		a. At the regional level;	*
		b. At the local level for each potential-affected community; and	*

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		c. Among particularly vulnerable sub-populations with potentially-impacted communities, such as women, children and elders.	*
	6.	Identify lessons learned from social and cultural impacts of previous mine developments in the NWT and how they have been incorporated into the impact identification, prediction and mitigation for this development.	*
	7.	Discuss the development of a Human Resources Management Plan and any programs that will be offered at the mine site to identify and mitigate social problems.	*
	8.	An evaluation of beneficial and adverse socio-economic impacts in Yellowknife in comparison to smaller communities, focusing on the distribution of impacts.	*
H-3		Heritage Resources	
	1.	Identify all known archaeological and heritage resources, as well as sites or areas of cultural significance in or near the Local Study Area. To protect these resources, their exact locations should NOT be included in the DAR.	Sec 3.14
	2.	Identify any areas within the Local Study Area that have medium to high probability of containing currently unknown cultural and/or heritage resources.	Sec 3.14
	3.	List all correspondence and consultation with experts (traditional knowledge holders, archaeologists, anthropologists) used to make the above assessments. List all recommended mitigation measures identified for the protection of local known and high potential areas of cultural and heritage resources. Particular emphasis should be put on engaging local TK holders in this EA.	Sec. 3.14
H-4		Traditional and Contemporary Land Use and Wildlife Harvesting	
	1.	Describe any potential direct and indirect impacts that the YGP may, on its own and in combination with other cumulative developments, have on hunting, fishing and trapping for persons from the potentially-impacted communities.	*

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	2.	Identify all measures required and commitments made by Tyhee to mitigate against impacts on both traditional land use and resource harvesting from the land.	*
H-5		Protected and Withdrawn Areas	
	1.	Identify any locations within, proximate to, or potentially impacted by YGP operations, that are currently protected by law, subject to special management rules and regulations, or are proposed to become withdrawn areas in the future. These areas can be readily identified through consultation with community leaders and staff of the NWT Protected Areas Strategy.	*
H-6		Visual and Aesthetic Resources	
	1.	Identify any particular landforms, locations of special interest, or other unique environments that merit special attention in the Local Study Area and discuss any mitigation measures proposed to reduce potential impacts to them. Analysis of the nearby esker identified as a potential gravel source and/or airstrip is specifically required.	*
	2.	Discuss the potential visual impact of the proposed development.	*
	3.	Identify any other area users who may be potentially impacted –economically, socially or culturally by the visual and aesthetic impacts of the proposed development.	*
H-7		Human Environment monitoring	
	1.	Include descriptions of any commitments, plans and strategies that are proposed to monitor the following:	
		a. Business opportunities	
		b. Employment, continued education and hiring	
		c. Mitigation of adverse social impacts	
		d. Traditional harvest; and	
		·	

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e. Worker and community health and wellness.	
I Biophysical Environment	
I-1 Water Resources	
1. A listing of all applicable water permits, licenses and authorizations that will be required;	Sec. 1.6
2. A discussion of any metal or other water quality parameter not listed under schedule 4 of the MMER which may be concern for effluent discharged into the receiving environment.	*
3. An examination of the potential impacts of the YGP on water quality downstream of the proposed TCA, Ormsby development and Nicolas Lake development, which shall include, but not be limited to:	
a. A prediction of the quality and quantity of effluent discharged to the receiving environment that shall address all regulated water quality parameters;	*
b. A detailed conceptual plan of the management and treatment of effluent emitted from the TCA and Nicholas Lake development; and	*
c. A prediction of contaminant loading and dispersion into the receiving environment, from the TCA and Nicholas Lake development effluent during mine operation and after closure.	*
d. The potential effects of YGP operations on increasing contaminant concentrations in the sediment of Narrow and Nicholas Lakers, and;	*
e. The potential effects from the discharge of nutrients to the receiving environment, which shall include possible trophic changes in downstream water bodies.	*
4. A discussion concerning the MMER and its role in the YGP's operation, which shall include, but not be limited to:	
a. An overview of the MMER and its proposed application in the YGP;	*

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b. A description of the conceptual Effluent and Water Quality Monitoring Studies to be conducted under the Environmental Effects Monitoring (EEM) portion of the MMER;	*
c. A description of the conceptual Biological Monitoring Studies to be conducted under the EEM portion of the MMER;	*
d. The applicability of the results to be generated by the studies identified in items b) and c) to the site-specific northern conditions of the YGP area;	*
e. A discussion of the suitability of the species proposed to be tested in the Biological Monitoring Studies to draw conclusions about the potential impacts on northern organisms; and	*
f. Discussion of any metals and other water quality parameters not listed under Schedule 4 of the MMER.	*
5. An assessment of the YPG's capacity to meet water quality parameters and monitoring requirements in excess of those prescribed in the MMER if impacts to water quality are predicted to be significantly adverse.	*
6. The potential impact of YGP operations on promoting erosion and sedimentation.	*
7. The potential impact of mine water discharge from the Ormsby and Nicholas Lake developments, which shall include, but not be limited to the following:	
a. Predicted quality and quantity of mine water that will be discharged into the receiving environment from the mine workings;	*
b. Water balance predictions and contingencies for potential higher than expected inflows to the mine workings; and	*
c. Mine de-watering effects on the hydrology, groundwater flows and chemistry of the local study area.	*

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d. A discussion regarding the potential affects of the mine working, following closure on the surrounding groundwater regime with specific consideration if paste backfill is employed at the site.	*
8. The potential effects of the operation on the quality and quantity of sub-surface flows which must include the underground workings and groundwater flows for both Ormsby and Nicholas Lake developments.	N/A
9. The potential impact of YGP operations on the hydrology and water balance of the Local Study Area, which shall include, but not be limited to:	
 a. Predicted changes in timing, volume and deviation of peak and minimum water flows resulting from the Development; 	*
b. Water balance effects from the operation of the TCA; and	Sec 2.13
c. Water drawdown on the water balance of Giauque Lake.	*
10. The potential effects of the YGP on the promotion of metal leaching and acid rock drainage (ML/ARD), which should include but not be limited to the following:	
a. A discussion of the results of ML/ARD testing for tailings, waste rock and low-grade ore generated through YGP and their implications on water quality; and	Sec 2.12.1
b. Conceptual procedures for the identification, segregation, handling and disposal of rock with potential for ML/ARD.	*
11. The role that YGP activities will have on the discharge of heavy metals including arsenic into the receiving environment and its potential impact on water quality.	*
12. The role that YGP activities will have on the discharge of cyanide into the receiving aquatic environment and its potential impact.	*

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13. A discussion of the potential impact that YGP activities will have on the Yellowknife River basin downstream of the Development with particular emphasis on potential impacts to the City of Yellowknife's drinking water quality. The possible establishment of remote water quality monitoring points shall be addressed in this discussion.	
14. The potential impact that water intake from Giauque Lake will have on the disturbance of the lake's contaminated sediments.	*
15. Provide a conceptual plan for water quality monitoring that shall include, but not be limited to the following considerations:	
a. The development of an aquatic effects monitoring program that will consider water quality and quantity, fish and aquatic habitat monitoring	*
b. A discussion around how traditional knowledge and other community input were used.	*
c. A discussion concerning the implementation of an "Adaptive Management" strategy to address unacceptable impacts to water quality that are identified in the course of YGP operations; and	*
d. How Tyhee will report results to regulators and potentially-affected communities	*
I-2 Fish and Aquatic Habitat	
1. The potential effect of YGP operations on Giauque Lake's aquatic organisms and habitat which shall include, but not be limited to:	
a. The potential impact of freshwater withdrawal on Giauque Lake's over-wintering habitat, littoral habitat and oxygen concentration; and	*
b. The potential impact of the freshwater intake and supporting infrastructure footprints.	*

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	2.	The potential downstream impact of all effluents originating from YGP operations on aquatic organisms and their habitat. This should consider, but not be limited to effluent from the TCA, Ormsby Zone and Nicholas Lake infrastructure, roads and borrow areas.	*
	3.	The potential impact of YGP operations on the aquatic organisms and habitat of Nicholas Lake with specific regard to any proposed infrastructure that may be located in aquatic habitat, as well as fresh water withdrawal from Nicholas Lake.	*
	4.	The potential impact of YGP operations on the aquatic organisms and habitat of Narrow Lake with specific regard to any proposed infrastructure that may be located in aquatic habitat there.	*
	5.	An assessment of Winter Lake's value as habitat for aquatic organisms.	Sec. 3.12.12
	6.	A discussion of how the DFO's <i>Principle of No Net Loss</i> will be considered during the YGP's operation.	*
	7.	The potential impact that road development, including water crossings, will have on aquatic organisms and habitat.	*
	8.	The potential impact that YGP operations may have in increasing contaminant concentrations in fish.	*
I-3		Vegetation	
	1.	An assessment on the potential impact of the YGP on rare plant communities, particularly <i>SARA</i> listed species, if applicable, in the Local Study Area.	Sec 3.7.5
	2.	The potential impact of YGP operations on culturally significant species – as identified through traditional or community knowledge.	*
	3.	The potential impact of vehicle, mill and power plant emissions on vegetation.	*

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	4. The potential impact of dust emissions on vegetation.	*
	5. A conceptual plan for monitoring of impacts on vegetation, including plans for reporting to regulators and impacted communities.	*
I-4	Wildlife and Wildlife Habitat	
	1. The rationale and methodology for the selection of the Valued Ecological Components (VECs) species.	Sec 5.1
	2. The effects that each YGP component may have on wildlife and wildlife habitat VECs, which shall include, but not be limited to:	
	a. Potential direct effects to habitat with a per-VEC quantification of that loss;	*
	b. Potential indirect effects to habitat with a per-VEC quantification of that loss;	*
	c. Historic, current and expected wildlife use of potentially-contaminated water sources, and an assessment of impacts predicted from such activity;	*
	d. Potential impacts to VECs from vehicle traffic, including YGP related travel on the Winter Road;	*
	e. Potential impacts of dusting, originating from YGP operations, on wildlife habitat;	*
	f. Potential effects of odor and noise on wildlife;	
	g. Physical barriers to wildlife erected as a result of the construction;	*
	h. Disruption, blockage, impediment and sensory disturbance, of daily or seasonal wildlife movements (e.g., migration, home ranges); and	*

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	i. A discussion as to how site planning for the mine has considered potential impacts on wildlife and wildlife habitat; this should include minimizing potentially high use areas such as eskers.	*
Sec	ential impact of YGP operations on <i>Species at Risk Act (SARA)</i> listed species as pursuant to etion 79 of the <i>SARA</i> . as well as species listed by the Committee on the Status of Endangered Idlife in Canada (COSEWIC) and the General Status Ranks of Wild Species in the NWT.	Sec 3.13
	e potential impacts of YGP operations on attracting wildlife and discussion as to how Tyhee ends to manage the wildlife access to the site, with particular reference to the TCA, etc.;	*
run	conceptual wildlife protection plan, including furbearers, migratory birds, waterfowl, large ninants and large carnivores, in regards to activities occurring at the mine site and in the asportation corridor, including but not limited to:	
a	. Efforts to be undertaken to monitor wildlife in the vicinity of the YGP;	*
b	. Identification of adaptive management measures to avoid, minimize, and mitigate potential impacts to wildlife.; and	*
С	How monitoring results and mitigation efforts will be reported to regulators and potentially-impacted communities.	*
I-5 Ter	rain	
1. The to:	e potential effects of all YGP operations on the terrain which shall include, but not be limited	
a	. Buildings and mining support infrastructure;	*
b	. The complete road network;	*

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c. The TCA and associated infrastructure;	*
d. The proposed airstrip, particularly in regards to the long term and increased use of the Discovery Mine airstrip	*
e. Aggregate extraction and	*
f. Any envisioned expansions to the winter road as may be required for the YGP beyond the existing scope of the current winter road.	*
2. The potential impact of YGP operations on terrain due to potentially increased sedimentation and erosion.	*
3. The potential impact of YGP operations on land subsidence in the area of the Ormsby Zone and Nicholas Lake mine workings.	*
4. A discussion of Tyhee's commitment to minimize the overall footprint of the mine, as well as its consideration for locating its infrastructure on brownfields ¹ sites.	*
5. The potential effects of YGP operations on permafrost conditions in the mining area.	*
6. An adaptive management plan to examine the impacts on local terrain, including:	
a. A conceptual quarry management plan;	*
b. A conceptual waste management plan;	*
c. A conceptual geotechnical monitoring; and	*
 d. A discussion of how monitoring results will be reported to regulators and potentially- impacted communities. 	*

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I-6		Air Quality and Climate	
	1.	A discussion of the standards, guidelines and regulations that will be applied to the YGP operation in all areas related to air quality.	Sec 3.5.2
	2.	A discussion of the technology that will be utilized in YGP operations to ensure that significant adverse impacts to air quality are not incurred.	*
	3.	The potential effects of YGP operations on air quality through the atmospheric dispersion of emissions and dust on a local and regional scale. This shall include, but not be limited to estimates of:	
		 Emissions from waste incinerator(s), with particular emphasis on the generation of dioxins, furans and mercury; 	*
		b. Dust from roads, waste rock and ore stockpiles, quarries, and mill activities;	*
		c. Emissions from the gold refinery; and	*
		d. Emissions from vehicles and diesel generators.	*
	4.	The potential impact of YGP operations as a source of acidic precipitation.	*
	5.	A discussion of the potential impact of YGP operations in generating greenhouse gas emissions, which shall include but not be limited to the following:	
		a. Predicted total annual atmospheric loading of greenhouse gases in CO2 equivalent values;	*
		b. Comparison of the value determined in a) to the total emission generated in NWT, as well as Canada as a whole; and	*
		c. A discussion of Tyhee's consideration to minimize greenhouse gas emissions.	*
	6.	A conceptual air quality adaptive management plan, which shall include a discussion of how monitoring results will be reported to regulators and impacted communities.	*

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I-7	Bioph	ysical Environmental Monitoring	
	Envir consi	t on any discussions with communities, federal and territorial governments related to onmental Agreements to monitor and mitigate any of the above sections, with particular deration to environmental components by regulation. Include a discussion of Tyhee's all approach toward negotiating Environmental Agreements.	*
J	Closu	re and Restoration	
		scription of the policies, regulations and industry standards that will be considered in the opment of the C&R Plan.	*
		nceptual C&R Plan for the purpose of this environmental assessment, which shall include, of the limited to:	
	a.	A list of C&R components and activities;	*
	b.	A consideration of various reclamation scenarios for the site;	*
	c.	The rationale for the selection of proposed activities versus alternatives that have been dismissed;	*
	d.	Conceptual details of the methods and location for materials on and off-site disposal;	*
	e.	A visual depiction of the site at the completion of mine reclamation based upon the current development description;	*
	f.	A cost-estimate component of proposed reclamation activities; and	*
	g.	A conceptual post-closure monitoring plan, for protection of both the biophysical and human environment. Include a discussion of how monitoring results will be reported to regulators and potentially-impacted communities.	*

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h. Discussion concerning liabilities for the TCA, airstrip, quarries and the Discovery project areas for remediated infrastructure at these sites and financial security associated with these and other items.	*
3. A discussion concerning the adequacy of the TCA closure design to prevent ARD, with respect to providing a sufficient barrier for the prevention of tailings oxidation, or the re-suspension of tailings due to wave action or any other major disturbance.	*
4. A discussion concerning the management and monitoring program for waste rock, overburden, or other material that could potentially cause an acid rock drainage effect;	*
5. The potential social and economic impacts of the mine closure.	*
6. A discussion regarding Tyhee's approach to working with potentially-impacted local communities and aboriginal groups to ensure that public values are taken into consideration during A&R.	*
6. A discussion concerning the establishment of a self-sustaining vegetation community on the mine site after closure, which shall include but not be limited to the following:	
 a. Proposed re-vegetation techniques including a discussion on what species will be considered for this activity; 	*
b. Predicted vegetation productivity and re-growth rates; and	*
K Cumulative Effects	
Cumulative biophysical impacts on water quality in the Yellowknife River system;	*
 Cumulative social, economic and cultural impacts associated with the increasing number of operating mines in the Mackenzie Valley, and the ability to maximize benefits remaining in the North; and 	*

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 Cumulative biophysical impacts, from historic and current industrial development, on the immediate Discovery Mine and Yellowknife Gold Project areas with specific regard to the use of the Discovery Mine airstrip and impacts to the water resource that the Discovery Mine may have on baseline conditions for the YGP, such as cumulative impacts to Round Lake and Giauque Lake. The following items are required for consideration of cumulative impacts: 	
1. An analysis of the Valued Ecosystem Components (VECs) to be considered in the cumulative impact assessment.	*
2. Determination of other past present and reasonably forseable human activities that may affect the same VC which should include:	
a. A discussion of developments considered but not included and the rational for the decision;	*
b. The rational for including the d3evelopments in a).	*
3. Identification and rationale for the geographic and temporal scale that will be applied to the cumulative impacts assessment of the VECs under consideration.	*
4. Discussion of the approach and methodologies used to identify and assess cumulative effects. This shall include the provision of explicit documentation of the assumptions, models and information sources used, as well as information limitations and associated levels of uncertainty.	*
5. A cumulative effects predictions, which considers, but is not limited to the following:	
a. Potential impacts to the VCs likely to result from the proposed development in combination with past, present or reasonably foreseeable developments;	*
b. The delineation of effects to the biophysical environmental which are attributable to either the Discovery Mine or the YGP; and	*
6. A plan for the monitoring of cumulative effects and the adaptive management of the YPG's contribution to regional cumulative effects	*

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L Accide	ents and Malfunctions	
	cussion regarding company policies, industry standards, guidelines or regulations to be dered in the planning and operation of the YGP.	*
failur	t the risks and effects of accidents and malfunctions, with particular consideration to a e of the TCA; major fuel spills at YPG site or along transportation route; accidents involving ansportation and hauling of cyanide containing compounds.	
3. A cond	ceptual emergency response plan that shall include, but not be limited to the following:	Appendix I
a.	Storage, transportation and handling system failures of hydrocarbons;	
b.	Storage, transportation and handling system failures of ANFO and other explosives;	
c.	Storage, transportation and handling system failures of cyanide and other hazardous process chemicals;	
d.	Storage, transportation and handling system failures of any other hazardous compounds to be used at the YGP	
e.	Failures of the TCA system, including catastrophic failure of the dyke, as well as tailings spills; and	
f.	Responses to vehicle and industrial accidents.	
g.	Provision of a copy of the contractor's fuel handling and spill clean up procedures and an explanation of how the proponent has ensured that the contractor is cognizant of and in adherence to permit conditions.	
h.	A description of the measured to be used to prevent, prepare for, respond to and recover from, any accident or malfunction etc.	

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4. A discussion as to how Tyhee will attempt to prevent or reduce malfunctions associated with activities conducted by its contractors, with particular consideration to use of the winter road.	Appendix I
5. A discussion as to how site planning and engineering considerations have been undertaken to prevent or reduce the likelihood of malfunctions and accidents during YGP operations.	*
6. A discussion concerning adaptive management measures in the event that Tyhee is unable to meet water quality parameters at the point of discharge (as per MMER or water licence parameters).	*