

Topic	Issue	Notes	Rank	Rationale
1. Heritage Resources	1.1 physical disturbances to heritage sites		Low	The likelihood of an impact is low. The proponent has conducted several years of archaeological inventory to identify archaeological sites at risk of impact from the project. Very few sites will be impacted and mitigation measures are being devised to reduce negative effects. The significance of adverse effects are thus predicted to be low.
2. Labour Force	2.1 problems with employee retention		High	Likelihood high - as evidenced by current mines' experiences with alcohol & drug issues; employee attitude towards rotation system, experienced benefits of employment. Significance high - as impacts NWT's ability to keep benefits within territory. Project will impact GNWT and other businesses' abilities to retain employees as more are finding jobs with existing developments.
	2.2 lack of adequate Northern labour pool to staff mine	2.2.1 Community infrastructure and activities deprived. 2.2.2 Inability to access benefits from development due to capacity issues. 2.2.3 Decreasing local hiring	High	Likelihood and significance high. Requires progressive solutions - extension of hiring communities, increased proponent-provided community training.

	2.3 wage benefit drain from North		High	Likelihood and significance high. Linked to above.
3. Government Capacity	3.1 increasing costs and pressures on existing physical infrastructure	3.1.1 Increased maintenance, reconstruction, and enforcement requirements especially on Highway 4 but also Highways 1 and 3. Also concerns related to capacity of the winter road. 3.1.2 Increased concerns regarding public safety. "	High	Likelihood and significance high - detailed transportation logistics plans required - volume estimates potentially underestimated; Increased traffic will impact Highway 4, 1, 3, and winter road; Climate change may reduce capacity of winter road.
	3.3 lack of adequate skills training programs for Northerners	3.3.1 Not available to people. 3.3.2 Not appropriate for industry.	High	Likelihood moderate, significance high - requires Industry cooperation for programs & services.
	3.4 increasing costs and pressures on regulation and monitoring activities		Moderate	Socio-economic monitoring not regulatory, but dependant on MVEIRB recommendation for follow-up. Financial structure dependant on SEA negotiations / proponent commitment.

4. Regional Disparities	4.1 widening income disparities between communities and regions		High	Likelihood and significance high - wage disparities impact the ability to provide services in communities. Potential for trained / skilled workers to move away to other communities offering more services. Should be considered in setting an appropriate spatial boundary.
	4.2 competition for access to benefits between communities		Moderate	Regionally, likelihood moderate as most communities will have access to benefits; determined by spatial boundaries of EA. Significance moderate based on potential effect of receiving benefits. Negative impacts and positive
	4.3 determination of "affected communities"		High	Significance high - issue of Fort Resolution being excluded in the past. Inclusion as affected community for this project may aid proponent in meeting potential Northern benefits targets. Impacts spatial boundary of project.
5. Northern Business	5.1 distribution of spin off effects - flows from North	inability to compete with southern monopoly	Moderate	Likelihood moderate, significance high, however ability to correct limited by NAFTA, capacity issues.
	5.2 inflated wages/material costs - effects on local/regional businesses		High	Likelihood and significance high.

	5.3 secondary business development opportunities for Northern firms		High	Significance high - Potential logistical issues that impact abilities of local businesses to get mine contracts. Critical to resolve issues if local businesses are to benefit from the project.
6. Sustainable Economy	6.1 over-reliance on one resource economy		High	Likelihood high on a regional level, moderate on a territorial level. Significance very high.
	6.2 impacts on alternative business opportunities/economic diversification	lack of tourism development, outfitters; existing and potential future activities	High	Significance high -Potential benefits for NWT and its residents. Likelihood moderate - Limited economic diversification from existing projects. Relates to 5.3 and necessitates cooperative efforts to maximize economic diversification potential.
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1. Employment	1.1 discriminatory hiring policy and practices	criminal records, local vs. outside labour force,	High	Significance high and likelihood high, if commitments to counter this are not identified in the DAR/EA.
	1.2 cultural difference in workplace affecting job satisfaction		High	Likelihood and significance high - requires proponent commitments for cultural well being initiatives on site.
	1.3 lack of opportunity for advancement		High	Likelihood and significance high - this issue is experienced at existing mines. Could be corrected by proponent commitments for on-the-job advancement training and flexible work schedules to allow for training (including trades and management courses).
	1.4 increased need for child care		High	Likelihood high if women are to participate in the projects's workforce. Significance high - as lack of daycare limits abilities for women to enter the workforce. Has the potential to maintain female dependance on social services instead of participation in the workforce.
	1.5 gender inequities		Medium	Likelihood moderate as the GNWT expects the project to have equal opportunities HR policies. Significance moderate as could cause continued dependence on social services, for example, however separating the mine's impact on this from other social influences and trends is difficult.

	1.6 frustration from hiring targets that have not been met		Low	Likelihood moderate, significance low. Limited by dependance on proponent commitments that cannot be enforced, due to the nature of EA under MVRMA and any socio-economic agreement that may be signed.
2. Education	2.1 incentives and disincentives to further education		Low	Because this lists both incentives and disincentives the impact could be either positive or negative.
	2.2 need for increased educational programming to prepare for mine employment	literacy, trade certificates	Moderate	We consider the likelihood and significance of impacts due to lack of further education to be moderate, however this point appears to be a solution not an impact (perhaps possible mitigation).
	2.3 lack of functional literacy		Low	Likelihood and significance low - training required for position could be provided by mine.
3. Training	3.1 lack of diversity & adequacy of training opportunities		High	Significance high - as issue for communities. Likelihood high - as evidenced by failure of current mines to follow-through on community-based training including current issues with advancement (see 1.3).

	3.2 inability to meet educational requirements to access training		Low	Significance moderate, likelihood low. Industry cooperation with communities and governments could help rectify this.
	3.3 limited training available in outlying communities		High	Significance high - as issue for communities. Likelihood high - as evidenced by failure of current mines to follow-through on community-based training.
4. Income and Expenses	4.2 money management issues		High	Significance and likelihood high - as evidenced by current issues with alcohol and drugs, spending on entertainment, trips to South rather than going out on-the-land; and extent these impacts have on community, individual, family, and cultural well being.
	4.3 impacts from poor budgeting skills		N/A	See above.
	4.4 increasing income disparities (haves/have nots)		High	Significance very high, likelihood high - as some within community get employment on the project and others do not. Potential conflicts exaggerated by spending habits of project employees and their families.

	4.5 increased cost of living	housing pressures, Energy costs, Goods and Services Costs	High	Significance high, likelihood high - based on current trends created by existing mines. The abilities to correct may be limited. Also relates to inflationary pressures, increased wage and contract competition.
	4.6 housing availability, adequacy and affordability		Moderate	Significance moderate, likelihood of in-migration that would affect housing moderate. Current trends show improvements in housing situations in impacted region. One issue is lack of community funds to build new residential neighbourhoods.
5. Cultural/ Population Health	5.1 loss of language		High	Significance high, likelihood increasing (cumulative impact).
	5.2 reduced harvesting success		High	Significance high - as impacts traditional way of life and traditional economy. Likelihood high - based on latest data.
	5.3 loss of traditional skills		High	Significance high, likelihood increasing (cumulative impact).
	5.4 decreased transfer of knowledge between generations		Moderate	Significance high, however the extent of this effect by the mine is unclear (potential other sources).
	5.5 loss of spiritual connections and knowledge	less time on the land	Moderate	Significance high, however the extent of this effect by the project is unclear (potentially other sources).

6. Community Capacity	6.1 reduced involvement in communal activities	decreased volunteerism	High	Significance and likelihood high. Based on current diamond mines experiences, there has been less volunteerism from diamond mine employees. Employees are taking part in community events less often, choosing instead to travel south during their time away from the mine site, staying in Yellowknife, or staying at home, rather than for example going on community hunts, taking part in community wellness and governance initiatives. This will significantly impact the abilities of communities to be self-sufficient, maintain community leadership, provide mentors, and maintain culture, and thus community well being.
	6.2 lack of control over pace of development		Low	Significance and likelihood low - as EAs allow for this.
	6.3 potential for growing sense of disempowerment	impact of lack of consultation, TK, consideration of community goals	N/A	Related to above concerns.
	6.4 increasing outmigration/skills drain to larger centres		High	Significance high - as impacts abilities for balanced regional economic development and diversification. Likelihood moderate.

	6.5 infrastructure pressures of increasing immigration to regional centres	Yellowknife, Hay River, Rae	Moderate	Significance high. Likelihood low - expected migration manageable.
	6.6 Shortage of locally available labour force for community services		High	Significance and likelihood high - especially as cumulative impact with more projects on line maximizing use of community labour force. Increased wage competition reduces ability to retain, hire employees for community services.
	6.7 lack of capacity to engage in monitoring & enforcement		High	Significance high - may result in serious impacts not being identified / mitigated. Likelihood high - based on financial restraints of current monitoring.
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1. Carnivores	1.1 carnivore attraction	wolves, foxes, grizzly bear, wolverine. Attractants such as garbage, creation of denning habitat in camp, boulder fields, gravel	High	Chronic problem at other mines and exploration camps therefore high probability of occurrence (as some species in the area are species at risk species the concern level is higher).
	1.2 human/bear encounters	1.2.1 Safety. 1.2.2 Populations. 1.2.3 Bear removal/mortality	High	History of problems at the site, lack of population information in project area.
	1.3 increased carnivore mortality		Moderate	At regional scale any bear mortality is significant.
	1.4 noise/sensory impacts		Low	Although carnivores are somewhat adaptable, noise and sensory disturbance may reduce habitat effectiveness.
	1.5 key habitat loss in eskers		Moderate	All habitat types are an issue not just eskers. Direct and indirect habitat loss is of concern on regional basis. Given the scale of development in the region, carnivores have increasing probability of encountering human activities.
	1.6 loss of prey sources for grizzly bears		Low	At regional scale loss of prey species is minor
2. Caribou	2.1 exposure to contaminants	health effects via dust, contaminated forage, ingested tailings	Moderate	Evidence from other mines for metal accumulation in vegetation, unclear about risks to caribou

	2.3 effects on reproduction	2.3.1 Energetics: Poor condition = low weight = lower reproduction. 2.3.2 Calf-to-cow ratio.	Low	Site specific contribution to changes in reproduction minor (but refer to item 2.4 for cumulative impact concerns)
	2.4 cumulative impacts to population		High	Population has very low resilience due to declining population size, minor behaviour changes may have serious consequences.
	2.5 impacts on cariou behaviour	2.5.1 Result of sensory disturbance. 2.5.2 Different foraging, resting, movements within project area. 2.5.3 Attractants.	Low	There may be small changes in behaviour and or movements that are not significant in themselves (but refer to item 2.4 for cumulative impact concerns).
	2.6 hazards on site	road crossings, drained lake, dust, increased wolf predation, exposed lakebed	Moderate	Ranking is moderate given the uncertainty as to the mitigation measures that will be employed by the proponent. Without proper mitigation these effects are of concern.
	2.7 migration routes	cumulative impacts	Moderate	refer to item 2.4
3. Birds (particularly raptors, waterfowl)	3.2 exposure to contaminants		Low	However at other sites owls have ingested chemicals and died.

	3.3 habitat impacts	3.3.1 Creating new nesting areas (eg for peregrine in open pits). 3.3.2 Loss of habitat 3.3.3 downstream changes in flows could flood nests at the water's edge	Moderate	At other sites there have been mortalities associated with blasting in pits where nests have been established. The creation of nesting habitat for raptors on site can have effect on prey species in area.
4. Changing Water Levels	4.1 drawdown impacts on habitat	Changing levels in Kennedy Lake and downstream could affect semiaquatic furbearers in the lake	Moderate	Site specific destruction of habitat that may cause animals to be displaced.
In Kennaday Lake and downstream flows	4.2 downstream impacts	Changing water levels downstream could affect semi-aquatic furbearers and could flood the riverside dens of terrestrial mammals	Moderate	Site specific destruction of habitat that may cause animals to be displaced.
	4.3 Wildlife impacts from freezeup/ breakup timing changes	The lake could freeze and thaw at different times after the development, and this could affect wildlife	Low	Migration routes may be affected with changes to freeze up and or breakup of the lake.
6. Traffic & Road Concerns	6.1 impacts from traffic on winter roads	6.1.1 Cumulative and project-specific impacts of the main road and spur road 6.1.2 Spills on winter roads,	High	Increased potential for animal mortality by collisions with vehicles. Increased likelihood of spills.

	6.3 aircraft traffic disturbance		Low	Some disturbance at take-off and landing is expected.
7. Species at Risk		Short eared owls, Grizzly, Wolverine.	High	Refer to carnivore and bird sections for rationale.
8. General	8.1 waste management impacts		High	Wildlife attractant issues, see item 1.1
	8.2 impacts on small mammals	Attractants to fox and raven increase predation on small mammals, affecting species composition	Low	Similar impacts identified at other northern developments.
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1. Climate Change	1.2 transportation alternatives		Moderate	Resupply may shift from winter road to air due to insufficient season/capacity of winter road. Detailed contingency logistics plans required.
	1.3 Energy Alternatives		High	This needs to be considered in the earliest stages of planning. The potential for emission reduction over the mine life is enormous.
2. Physical Satbility	2.2 Impacts from changing permafrost		High	Permafrost design aspects may not be feasible in the long term. Implications for project design.
3. Geochemistry	3.1 Acid-generating rock impacts		Moderate	If acid generating material is identified it can be managed effectively with diligent efforts by the proponent.
4. Air Quality	4.1 Impacts from increased dust on vegetation (caribou forage)		High	The link between dust and the health of importatnt forage species for caribou must be better understood.
	4.2 Impacts from waste incineration		High	Compliance with Canada Wide Standards for Dioxins and Furans and the CWS for Mercury Emissions must be achieved.
	4.3 impacts from emissions		Low	Industrial activities in the project area increase cumulative impacts to vegetation from multiple emission sources.

5. Vegetation	5.1 increase in invasive species	from trucks, revegetation	Low	Can be mitigated with proper seed mixes
	5.2 impacts from increased dust on vegetation		High	Dusting is resulting in metal accumulation in vegetation and lichens near other mines, dusting also results in species composition change, reduced plant health, and earlier greenup of dust covered plants.
	5.3 stress to rare plant populations		Moderate	Unknown whether there are rare plants in the area
6. Emergency Measures	6.1 impact of smaller spills	especially concerning landfarms- also including transportation concerns (dangerous goods and waste)	High	Increased commercial traffic carrying fuel, ammonium nitrate and other dangerous goods will increase potential for accidental spills
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Air Quality	Assessment of project emissions by dispersion modeling, etc. to determine impacts (Identified during the scoping session but not in the MVEIRB list of issues)	High	Ranked high since without an assessment, the effects of the project cannot be determined.
Air Quality	Determining cumulative effects from other emission sources (Identified during the scoping session but not in the MVEIRB list of issues)	High	Environmental impacts know no lease boundaries: impacts cannot be determined in isolation
Climate Change	Increased emissions for the NWT (Identified during the scoping session but not in the MVEIRB list of issues)	High	The cumulative effects of increased emissions in the NWT needs to be considered and limits put in place to determine what level of industry activity is reasonable.
Spills	Handling of hydrocarbon contaminated materials (Identified during the scoping session but not in the MVEIRB list of issues)	High	Considerable volumes can be generated over the life of the mine and they pose a potential long term liability.
Spills	Contingency planning for major spills (Identified during the scoping session but not in the MVEIRB list of issues)	Moderate	Prevention methods, trained staff and a good contingency plan will help offset potential disasters.
Hazardous Materials Management	Handling and disposal of hazardous materials(Identified during the scoping session but not in the MVEIRB list of issues)	High	A hazardous waste management plan is not enough. More effort needs to be placed on finding new materials that are less toxic/bioaccumulative.

Waste Management	Minimizing the mine footprint through waste reduction and management. (Identified during the scoping session but not in the MVEIRB list of issues)	High	The proponent's emphasis will help advance technologies for more efficient packaging, bulk purchasing, and more environmentally friendly products.
Closure	Mine design should consider best closure options (Identified during the scoping session but not in the MVEIRB list of issues)	High	Designing for closure can reduce the environmental impact of the project.
Emergency Measures	Absence of volunteer personnel	Moderate	Significance high and likelihood moderate - if most/all of volunteer fire fighting force on rotation at same time, limited/no fire fighting abilities in community.
For carnivores, caribou and species at risk	Cumulative impacts on site to individuals	High	Individual project activities in and of themselves may be inconsequential but together may have significant effects on an individual animal
	Cumulative impacts regionally acting on populations	High	The project in and of itself may not have a significant impact at the population level but all activities in the region acting cumulative may have
Sustainable Economy	Total expected extracted value and amount of diamonds.	High	May impact sustainability of the diamond mining industry and future opportunities.

<p>Impacts on Individual's, Families and Community Well Being</p>	<p>Potential impacts of the project on the health and social well being of individuals, families and communities. These could range from community-level impacts such as the effect of increasing income disparities on community cohesion, through family-level impacts such as marital issues arising from rotational employment and parenting issues arising from single-parenting, to individual issues such as alcohol and drug abuse and mental health problems.</p>	<p>High</p>	<p>It is known that non-renewable resource extraction activities exaserbates existing social issues.</p>
<p>Community Capacity</p>	<p>Potential impacts of the project on the demand for health and social services, including such things as medical transportation, emergency medical services, hospital utilization, and the need for increased public health services, environmental health and social programs.</p>	<p>High</p>	<p>Existing health and social services are operating at capacity.</p>

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