

## Analysis Criteria and Indicators (Continued)

Social and Community Impacts (continued)	
Criteria	Indicator
Air quality impacts on community	Number of residences that would experience air quality impacts as a result of tail pipe emissions.
Dust impacts on community	Number of residences likely to experience dust impacts as a result of additional truck traffic.
Vibration impact on community	Number of residences likely to experience vibrational impacts as a result of increased truck traffic.
Potential for health impacts on community	Number of residences and other facilities along the haul routes, the traffic composition and proximity of facilities to the roadway that would experience potential health impacts based on tailpipe emission impacts as determined from the modelling.
Economic Environment and Business Impacts	
Criteria	Indicator
Potential for disruption to business enterprises.	Number of business enterprises fronting and/or backing along a potential truck route.
	Number of sensitive / vulnerable business enterprises fronting and/or backing along a potential truck route.
	Ingress and egress interference at entrances to business enterprises.
Potential for removal of business enterprises and/ or property.	Number and area of business enterprise and/or other commercial or industrial property required (partial removals).
	Number and area of business enterprise and/or other commercial/industrial property required (full displacement).
	Number of sensitive / vulnerable business enterprises displaced.
Potential magnitude of effects on property values.	Qualitative assessment of the potential magnitude of effects on property values due to changes in traffic, traffic noise and roadway visibility at residential properties.
Noise impacts on businesses	Number of businesses expected to experience a 3, 5 and 10 dbA increase in noise levels over future baseline conditions for any given hour and a description of the magnitude of change.
Air quality impacts on businesses	Number of businesses along the proposed haul route(s) expected to be affected by a change in air quality as a result of tail pipe emissions from additional truck traffic.
Dust impacts on businesses	Number of businesses along the proposed haul route(s) affected dust as a result of additional truck traffic.
Potential for effect on agricultural operations.	Number and type of farms along the haul route potentially disrupted by truck traffic.
	Area and productivity/value of cropland removed for road improvements.
	Number and area of farm properties required for road improvements.
Cultural and Heritage Resources	
Criteria	Indicator
Potential for disturbance to built heritage/cultural features.	Number and character of built heritage features potentially affected by truck traffic.
	Built heritage truck exposure index.
	Number of heritage properties removed from construction of road improvements (distinguish between partial and full removals).
Potential for effects on archaeological resources.	Potential for effects on archaeological resources as a result of road improvements (as reflected through archaeological potential).
Transportation	
Criteria	Indicator
Change in road service level.	Change in road level of service/congestion (considers road section, length, and change in level of service).
	Change in access levels for road users.
	Effects on other roadways as a result of traffic diversion.
	Potential for delay to quarry trucks at level rail crossings.
Potential for change in road safety level.	Potential for increase in collision frequency and severity. (Difference in safety index with and without the quarry in 2031)
	Number of access points along the haul route.
	Number of intersections along the haul route.
	Intersection truck exposure index.
	Truck-rail exposure index at level rail crossings (daily # quarry trucks x daily # trains).
	Driveway truck exposure index.
	Number of locations with limited sight lines and/or steep grades.
	School bus route lengths (km) along the haul route.
	School bus truck exposure index.
	Conflict with agricultural vehicles and equipment.
Change in Road Function	Increase in Traffic (daily and %).
	Required change in road classification.
	Road widening required.
Potential for conflicts with cyclists.	Length of route coinciding with designated bike routes.
	Length of route without adequate shoulders for cyclists.
Potential for conflicts with pedestrians.	Number of schools along the route.
	Number of parks and community centres.
	Length of route without adequate shoulders/sidewalks for pedestrians.
Cost	
Criteria	Indicator
Estimated infrastructure costs.	Estimated cost for all required road and other infrastructure improvements.
	Potential for additional costs to the municipality(s) (e.g. impacts to municipal maintenance operations).
	Estimated property costs for all required road and other infrastructure improvements.