HUMAN HEALTH

TENAS PROJECT

Telkwa Mining assessed the potential Project-related effects on the Human Health Valued Component

Valued Component	Potential Effects Assessed
Human Health	Change in Human Health due to Changes in Air Quality Criteria Air Contaminants (CACs) Change in Human Health due to Changes in Environmental Media Quality Change in Human Health due to Changes in Noise

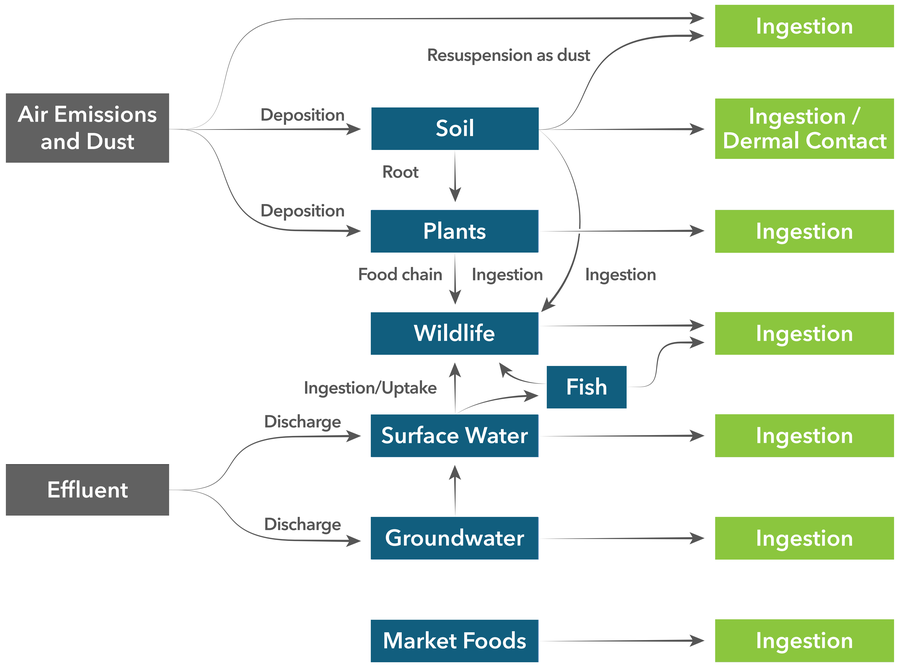
A Human Health Risk Assessment (HHRA) was conducted to support the assessment of potential effects on the Human Health Valued Component.

- Objective of the HHRA was to identify incremental changes that may occur to human health between the Baseline (or Base Case) and future Project Case conditions should the Project go ahead.

- To identify these changes, evaluations of health risk to people who may be exposed to contaminants of potential concern (COPCs) in the Local Study Area (LSA) under both scenarios were completed following standard risk assessment methodology.
- Two categories of people and age groups who have the highest potential for risk were selected for the human health evaluation:
  1. Indigenous and non-Indigenous Resident Land Users (toddlers and adults) living year-round in the study area, and
  2. Recreational Land Users (toddlers and adults) who visit the LSA.

There are 3 main potential transport pathways through which Contaminants of Potential Concern / Contaminants of Concern may be transferred from the Project to the environment where people could come into contact with them:

- Inhalation of air emissions and dust.
- Deposition of fugitive dust that can then be taken up by plants and thus ingested by people.
- Effluent discharge to surface water and groundwater that can then be ingested by people, and fish and wildlife used as subsistence food.



Example Mitigation Measures

- Build, maintain, and use the Tenas Access Corridor (TAC) for hauling processed coal to the Rail Infrastructure for the duration of all Project phases.
- Use water and chemical agents on the TAC to reduce fugitive dust emissions, where and when appropriate.
- Use dust suppression agents on the rail cars to reduce fugitive dust generation.
- Monitor actual blast results and implement improvements as required as per the adaptive management.
- Establish and implement a policy prohibiting shooting, hunting, and fishing within the Project Area.
- Spill prevention and response measures will be implemented in accordance with the Fuel Management and Spill Control Plan.
- Hazardous materials will be managed in accordance with the Fuel Management and Spill Control Plan.

Residual Effects

- The concentration ratio (CR) threshold of 1 for dust is already exceeded in Telkwa under existing conditions and the predicted increase in dust is less than 5%, based on comparison with regulatory guidelines.
- The residual effect of change in environmental media COPC/COC concentrations as a result of the Project is not expected to alter its integrity within the Human Health LSA to an unacceptable level.
- Project-related nighttime noise will be below the permissible sound level of 40dBA and health-based thresholds for sleep disturbance.

TELKWA MINING LIMITED