

Telkwa Coal Limited is a BC company focused on steelmaking coal projects.

Telkwa Coal Limited (Telkwa Coal) is a Canadian company focused on metallurgical (or steelmaking) coal projects in Canada and the United States. Our executive leadership has extensive experience with coal mining in Canada and abroad. Telkwa Coal is a fully owned subsidiary of Allegiance Coal Limited, based in Sydney, Australia.

Telkwa Coal is proposing to develop a surface coal mine called the Tenas Project within the Telkwa coalfield in Northwest British Columbia. While the Telkwa Coalfield contains three identified deposits – Tenas, Goathorn, and Telkwa North – Telkwa Coal is focused on developing only one: the Tenas deposit. The proposed Project’s annual production is 750,000 tonnes, and the overall footprint is approximately 1,040 hectares.

The Tenas Project and any changes to the planned activities in the future will require Wet’suwet’en, community and regulatory reviews.

Our Commitments

Health And Safety

Safety is a core value of our company. We believe that all activities can be completed with zero harm to personnel and that all incidents and injuries are preventable. We will provide resources to manage health and safety and expect all employees and contractors to share in the responsibility.

Indigenous People

We acknowledge and respect the unceded rights, title, interests, culture and aspirations of the Wet’suwet’en to 22,000 square km of traditional territory. In April 2017, we signed a Communications and Engagement Agreement as an initial, formal step in our commitment to the Wet’suwet’en.

Environment

We will ensure that our activities are responsible and protective of the environment. Our design and operational activities adhere to the mitigation hierarchy to avoid and minimize impacts, restore on-site and offset, where necessary.

Community

Integrity is fundamental to how we operate. We will engage with the community and stakeholders with the aim of ensuring the socio-economic priorities and goals are understood and addressed.

We look forward to having an open dialogue with our neighbours, working to address community questions, and developing the Telkwa coalfield responsibly and respectfully.

The purpose of this open house is to:

- Keep the community up-to-date on any changes to the Project scope
- Summarize the results of the Project’s baseline programs
- Show the Project’s progress through the regulatory process



The Tenas Project involves development of only one coal deposit: the Tenas deposit.

Telkwa Coal has retained many local experts for environmental, socio-economic, cultural and exploration programs.



Metallurgical or Steelmaking Coal and the Production of Steel

Coal mining is an important part of BC's economy, generating billions of dollars in revenue and supporting thousands of jobs. BC is one of the largest exporters of steelmaking or metallurgical coal in the world.

The majority (~ 90 %) of the coal produced in BC is metallurgical coal, which is used to make steel. The province also produces thermal coal, which is used to generate electricity and for other industrial uses, such as cement production.

Metallurgical coal is required to produce steel. There is no commercial substitute for coal in the steel production process. Approximately 750 kg of steelmaking coal is used to produce one tonne of steel and the steel used in an average car contains 650 kg of steelmaking coal.

Steel is an important engineering and construction material, making it a fundamental part of quality of life. Steel is part of a low carbon future, and is used in wind turbines, hybrid cars and solar panels.

Steel is critical to the industrialisation of a country and the alleviation of poverty. In fact, often a country's development is measured by the tonnes of steel per capita that a country produces.

Coal



Before processing, coal is reduced to coke.

Steelmaking



Iron Ore



70% of steel is produced using the blast furnace process while 30% is produced by the electric arc furnace (EAF) process. EAF uses scrap metal, while the blast furnace method uses coal to produce pig iron and steel through the reduction of iron ore.

Steel



World steel production was more than 1,690 million tonnes in 2017.

Steel is delivered as coils, plates, sections or bars.



The proposed Tenas Project is located 25 kilometres south of Smithers and 7 kilometres southwest of Telkwa within the Bulkley Nechako Regional District. Project start-up capital expenditures are estimated at 82.4 million Canadian dollars and annual operating costs are estimated at 73 million Canadian dollars.

Coal Processing

Coal will be processed in a conventional coal processing plant as seen in other western Canadian mines. The plant will use water and gravity to separate coal from rock. Process plant water will be reused on-site. Rock separated from coal and fine rock generated from processing will be returned to the pit or dry stacked.

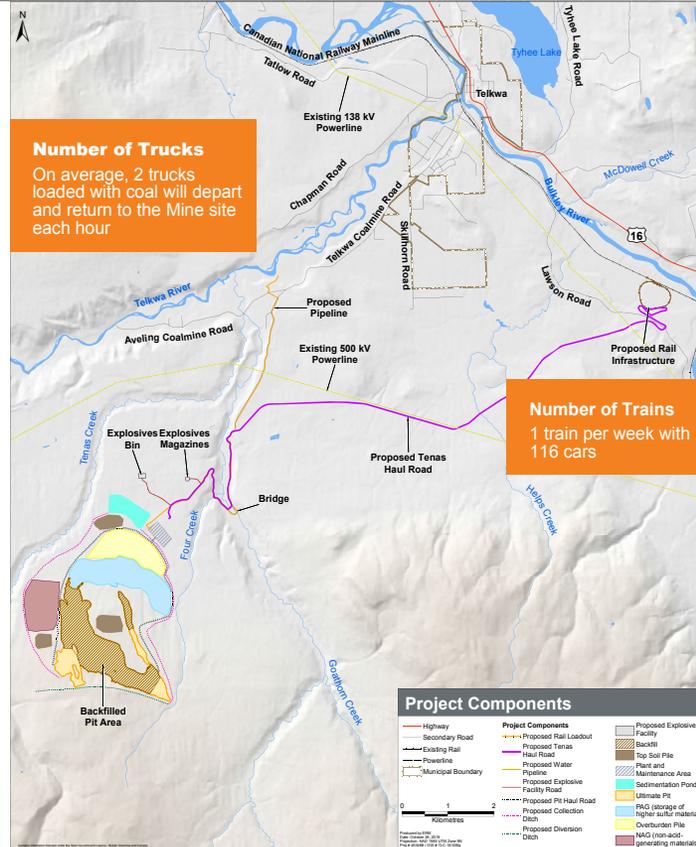
Transportation

Access to the mine will be via an existing forestry service road and a new, 11 km dedicated haul route called the Tenas Haul Road. Covered B-train trucks similar to logging trucks used in the region will transport the coal from the plant site to the rail loadout. The coal will then be loaded onto railcars and shipped on the Canadian National rail line to Prince Rupert's Ridley Terminal for export to steel mills – most likely in Asia. The Prince Rupert Ridley Terminal has sufficient capacity for the Tenas Project.



Environmental Monitoring

In accordance with an Environmental Management System, environmental management and monitoring plans will be developed and implemented. Plans will include management of air and dust, noise, aquatic effects, surface water and groundwater quality and quantity, wildlife and vegetation. Monitoring results will be reported annually to government and updated as required.



Project Phases

Construction: Construction activities will include site logging, topsoil salvage, construction of buildings, roads, rail loadout, and bridges as well as development of on-site utilities and services.

Operations: During operations, the mine pit and storage piles will be developed. Topsoil and other material suitable for reclamation or construction uses will be stockpiled. Coal will be processed and stockpiled prior to shipping.

Reclamation and Closure: At closure, site infrastructure will be decommissioned and removed. The pit and storage piles will be re-sloped and re-vegetated. Disturbed lands and watercourses will be reclaimed in accordance with pre-approved land use objectives and government regulations.

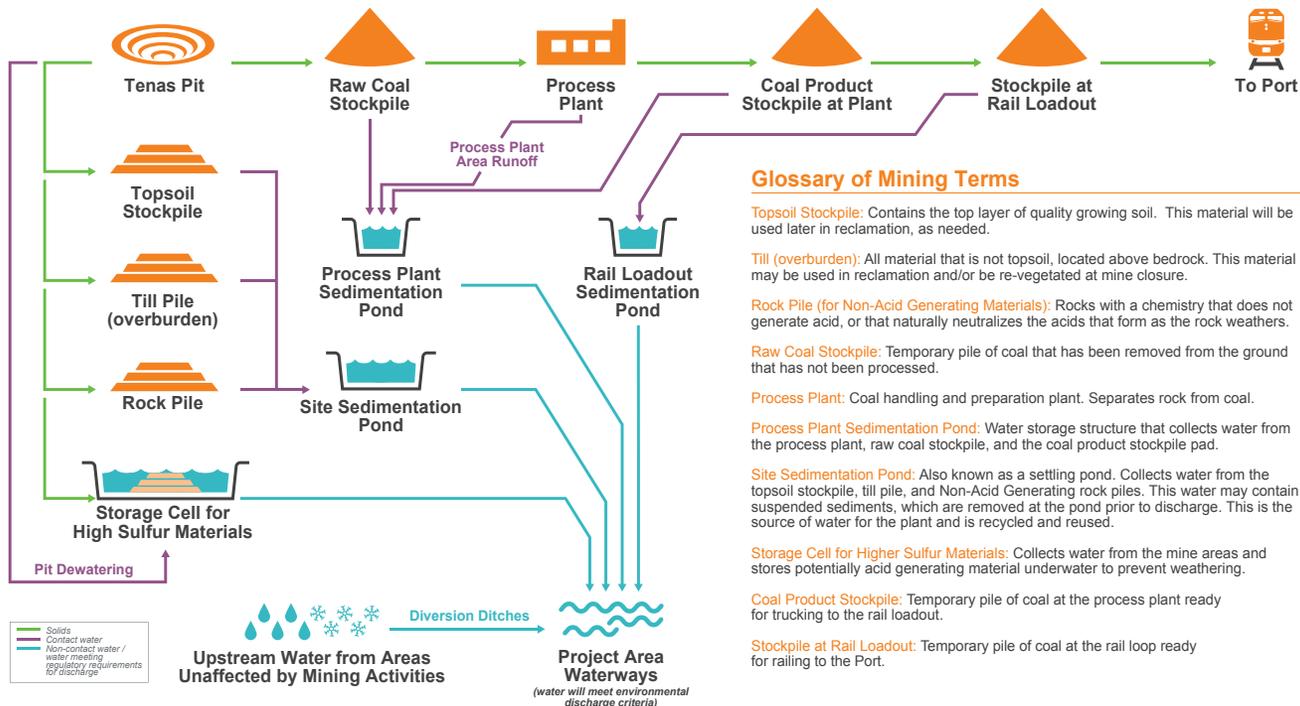
Site Layout

The Project site layout contains the following components:

- Open pit
- Coal processing plant
- Topsoil, till and rock storage piles
- Administration, first aid, maintenance, bath house, coal and rock laboratory, and warehouse buildings
- Water management infrastructure (ditches, sedimentation and storage ponds)
- Propane storage facilities
- Water supply wells, storage, and distribution system
- Fuel and lube storage facilities
- An explosives magazine, storage silos, and vehicle wash facilities
- Mine haul roads and access roads within the mine site
- Administrative office and maintenance shop
- Rail loadout and 2.5 kilometre rail loop connection to the existing CN Railway line
- A new 3.5 kilometre long 25 kilovolt powerline and substation connecting to the BC Hydro distribution line south of the Project area
- Bridge over Goathorn Creek
- An 11 kilometre dedicated haul route (the Tenas Haul Road)
- Upgrades to 6.5 kilometres of existing forestry service roads
- Water treatment plant*

*Requirement for water treatment plant subject to additional options review

Conceptual Flowchart of Mining and Water Management Processes



Glossary of Mining Terms

Topsoil Stockpile: Contains the top layer of quality growing soil. This material will be used later in reclamation, as needed.

Till (overburden): All material that is not topsoil, located above bedrock. This material may be used in reclamation and/or be re-vegetated at mine closure.

Rock Pile (for Non-Acid Generating Materials): Rocks with a chemistry that does not generate acid, or that naturally neutralizes the acids that form as the rock weathers.

Raw Coal Stockpile: Temporary pile of coal that has been removed from the ground that has not been processed.

Process Plant: Coal handling and preparation plant. Separates rock from coal.

Process Plant Sedimentation Pond: Water storage structure that collects water from the process plant, raw coal stockpile, and the coal product stockpile pad.

Site Sedimentation Pond: Also known as a settling pond. Collects water from the topsoil stockpile, till pile, and Non-Acid Generating rock piles. This water may contain suspended sediments, which are removed at the pond prior to discharge. This is the source of water for the plant and is recycled and reused.

Storage Cell for Higher Sulfur Materials: Collects water from the mine areas and stores potentially acid generating material underwater to prevent weathering.

Coal Product Stockpile: Temporary pile of coal at the process plant ready for trucking to the rail loadout.

Stockpile at Rail Loadout: Temporary pile of coal at the rail loop ready for raiiling to the Port.

Mining

The Tenas Project will be a conventional shovel and truck operation similar to other mines in the region.

- Rock will be drilled and blasted to develop the pit. Raw coal will be removed to the on-site process plant in haul trucks.
- After processing, the washed coal will be stockpiled outside the process plant ready for trucking to the rail loadout and train shipment to Port for sale.
- Topsoil and till excavated from the pit will be temporarily stored in storage piles for use in reclamation, as needed.
- Rock from the pit will be separated according to its sulfur content:
 - Low sulfur rock, with little potential to cause acid rock drainage, will be placed in the Non-Acid-Generating Rock Stockpile and/or backfilled into the pit.
 - High sulfur rock will be placed in Storage Cells for these materials.

Water Management

Water at mine sites can be classified into two types:

1. **Non-contact water** is from areas that have not been affected by mining activities. This water will be diverted around the Tenas Project site.
2. **Contact water** has been in contact with topsoil, till, rock piles, the process plant area, rail loadout, or mine site roads. This water will be collected and stored in the Site Sedimentation Pond to settle suspended sediments before being returned to the environment.

Water discharged from the Project will meet water quality requirements set by the Province.

The majority of the water used on site will come from precipitation and snow melt on site.

Project Benefits, Indigenous Peoples and Community Engagement

Local Employment and Project Benefits

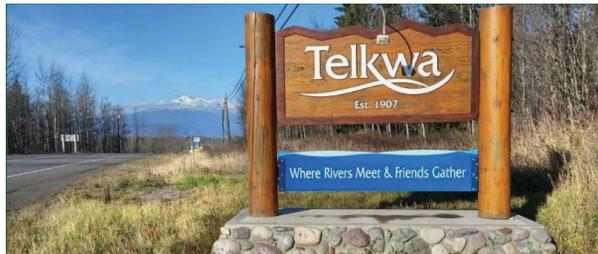
Telkwa Coal is committed to creating long-term, sustainable economic and community benefits for the region. Economic benefits to local communities include:

- More than 50 experts from Telkwa, Smithers and the Bulkley-Nechako region retained for environmental, socio-economic, cultural and exploration programs
- Direct, full-time employment of 90 to 110 people over the 25-year mine life
- Indirect employment (e.g., contracting) estimated at between 135 and 165 people

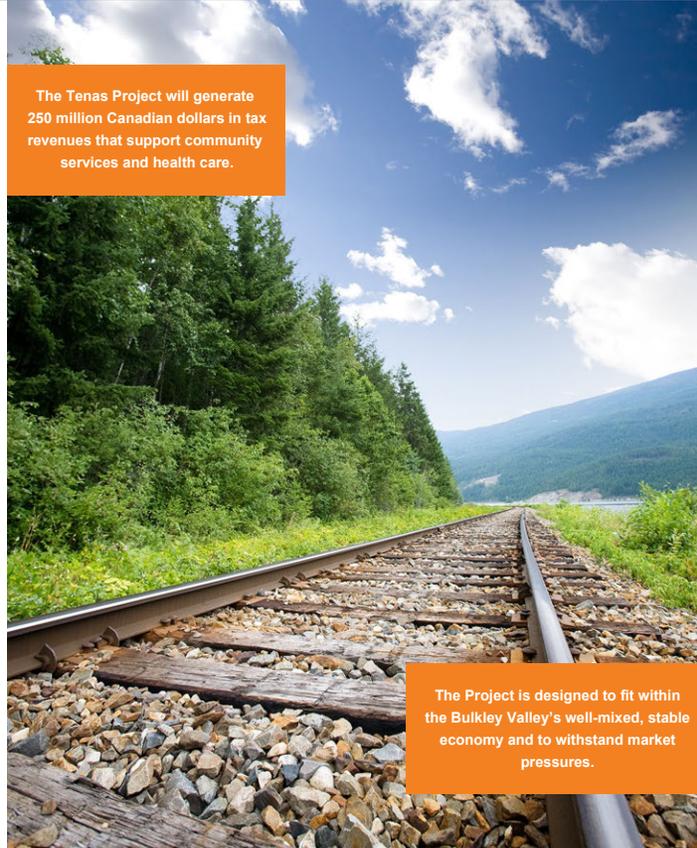
The Project will also have other economic benefits, including:

- 250 million Canadian dollars in revenues for federal, provincial, and local governments to support community services and infrastructure, including social programs, education, and health care
- Capital costs estimated at 82.4 million Canadian dollars
- Annual operating costs estimated at 73 million Canadian dollars

The Project is designed to be cost-effective and therefore able to withstand coal market volatility in order to provide a steady source of local employment.



The Tenas Project will generate 250 million Canadian dollars in tax revenues that support community services and health care.



The Project is designed to fit within the Bulkley Valley's well-mixed, stable economy and to withstand market pressures.

Engagement with Indigenous Peoples

Telkwa Coal recognises and respects the unceded rights, title, interests, culture and aspirations of the Wet'suwet'en to 22,000 square kilometres of traditional territory that includes the Tenas Project location.

In 2017, Telkwa Coal signed a Communications and Engagement Agreement as an initial, formal step in our commitment to the Wet'suwet'en. We will continue to engage with the Office of the Wet'suwet'en in respect of all Project activities. By the time the regulatory application is submitted, Telkwa Coal will have engaged with the community for three years.

Community Engagement

Telkwa Coal is committed to engaging with local communities to address their priorities in our project planning. The closest communities to the proposed Project are Telkwa and Smithers. Telkwa Coal has established a community office in Telkwa with an open door policy, and hired local residents to support environmental, socio-economic, cultural, and exploration programs.

Telkwa Coal's ongoing engagement with local government representatives, community members, and stakeholder groups includes:

- Public open houses
- Formal and informal meetings
- Phone calls and e-mails
- Social media
- Information bulletins

We will continue to share information with the communities as the Project moves forward.

Telkwa Coal has been actively supporting the community in various ways over the past 18 months through donations, sponsorship, and in-kind contributions.



Schedule of Baseline Work, Key Regulatory Process Dates, Project Planning, and Consultation

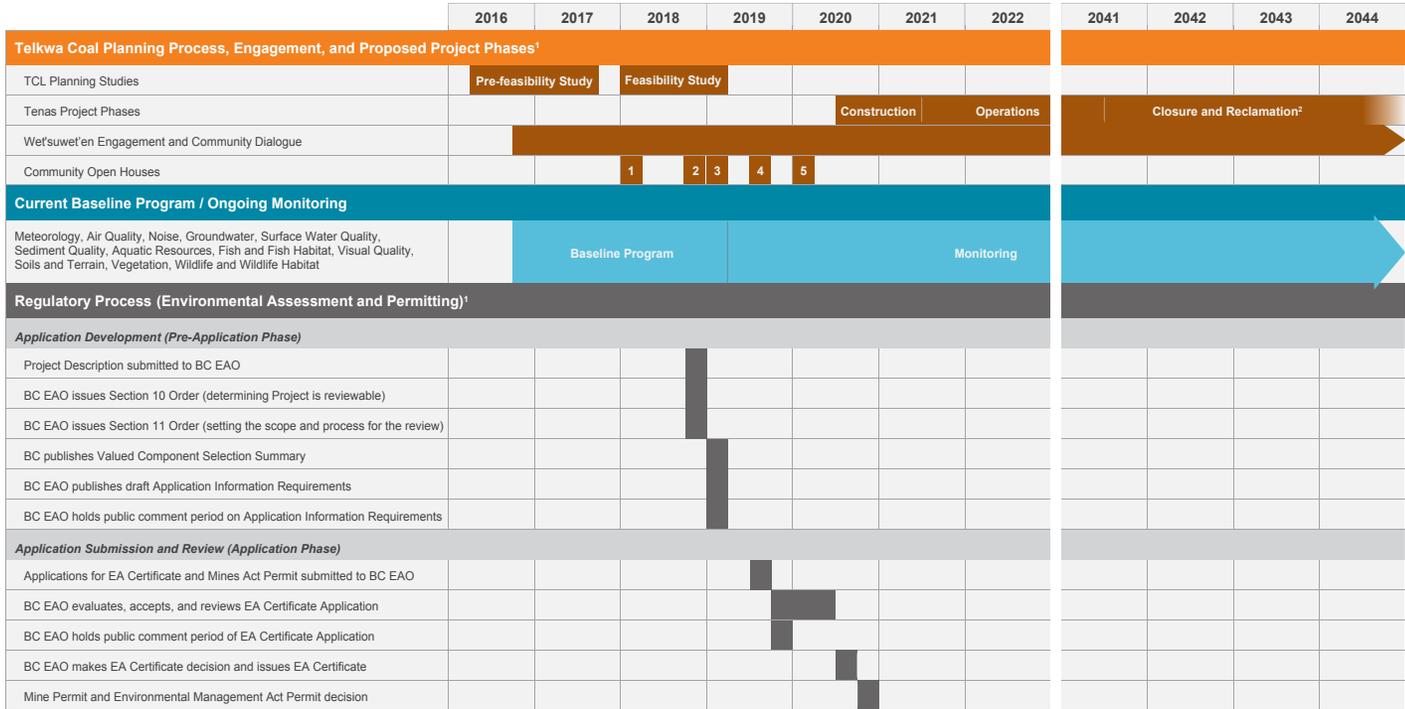
Regulatory Process

The Tenas Project will undergo a comprehensive regulatory process, reviewed under:

- the *Environmental Assessment Act*, administered by the BC Environmental Assessment Office (part of the BC Ministry of Environment and Climate Change Strategy)
- the *Mines Act*, administered by the BC Ministry of Energy, Mines, and Petroleum Resources
- the *Environmental Management Act*, administered by the BC Ministry of Environment and Climate Change Strategy

When the regulatory application is submitted, Telkwa Coal will have engaged with the community for three years.

The British Columbia Environmental Assessment Office requires proponents to hold two open houses. By the end of the regulatory process, Telkwa Coal will have held a total of five open houses.



Notes: ¹ Dates shown are Telkwa Coal's best estimates only.
² Progressive reclamation at specific sites may begin during the Operation Phase. Post-closure reclamation activities are anticipated to require two to three years, with continued monitoring beyond this time frame.

Telkwa Coal Limited is undertaking geology, environmental, socio-economic and cultural baseline studies, which will build on historical data that has been collected in the Project area and at the site. Baseline studies will inform the final Project Description, effects assessments and mitigation measures in Telkwa Coal's regulatory application.

Existing Historic Information

- Meteorological data from regional stations
- Data from four hydrology stations
- Geology, geotechnical, terrain stability, soils and terrain site mapping
- Site and regional water quality data collected between the 1970s and the 1990s
- Geochemistry dataset with over 700 samples
- Wildlife surveys and habitat mapping
- Fish and aquatics sampling
- Archaeological overview and impact assessment of the site and a heritage resources inventory



The current baseline program began in late 2016 with groundwater sampling. The bulk of the program was executed in 2017 with additional programs in 2018 to prepare Telkwa Coal's regulatory application. Water quality, hydrometric and atmospheric monitoring will continue.

Baseline Program Objectives

- Fill in temporal or spatial gaps and augment existing site information
- Meet current provincial data collection and survey standards

Baseline Programs

- Meteorology, Air Quality and Noise
- Geochemistry and Hydrogeology
- Groundwater and Surface Water Quality and Quantity (Hydrology)
- Fish and Aquatic Resources
- Ecosystems and Vegetation
- Geology, Geotechnical, Terrain, Soils and Natural Hazards
- Wildlife
- Cultural Use and Archaeology
- Socio-Economic and Land Use

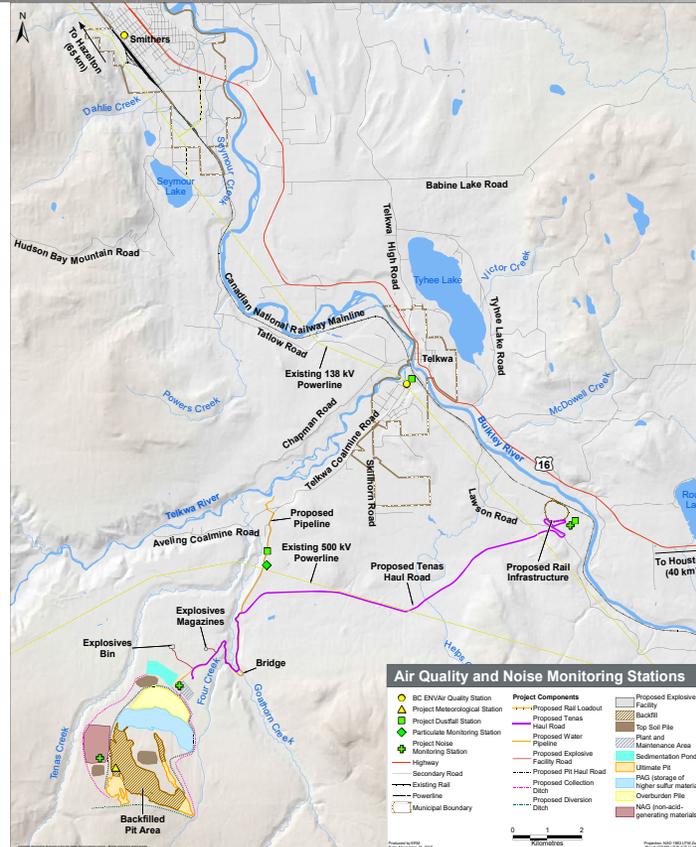
Air Quality

Although not a regulatory requirement, dustfall was collected from three stations, as we expect this to be of interest to the community. The dustfall stations are located at the proposed rail loadout, the Telkwa Weather Station and the Kerr Farm.

The air quality model will incorporate site meteorology data and historical air quality monitoring data that is available from provincial government air quality monitoring stations in Smithers, Telkwa and Houston. Potential air emission sources include drilling, blasting, excavating, plant operations, haul roads and rail loadout operations.

Highlights of the Baseline Program

- The results of **dustfall** monitoring (which records dust and metal deposition) between September 2017 and February 2018 were all below the BC industrial air quality objectives (BC MOE 2016).
- Nitrogen dioxide (NO₂)** measurements made in Smithers between 2016 and 2017 were also below BC air quality objectives.
- Particulate matter** 10 micrometres or less in diameter (PM₁₀) rarely exceeded BC air quality objectives between 2014 and 2017, but particulate matter 2.5 micrometres or less in diameter (PM_{2.5}) exceeded the 24-hour BC air quality objective between 3 and 28 times, depending on the station, primarily due to local wood smoke. Regional particulate matter monitoring stations are located at Saint Joseph's School in Smithers and the firehall in Houston.



Noise

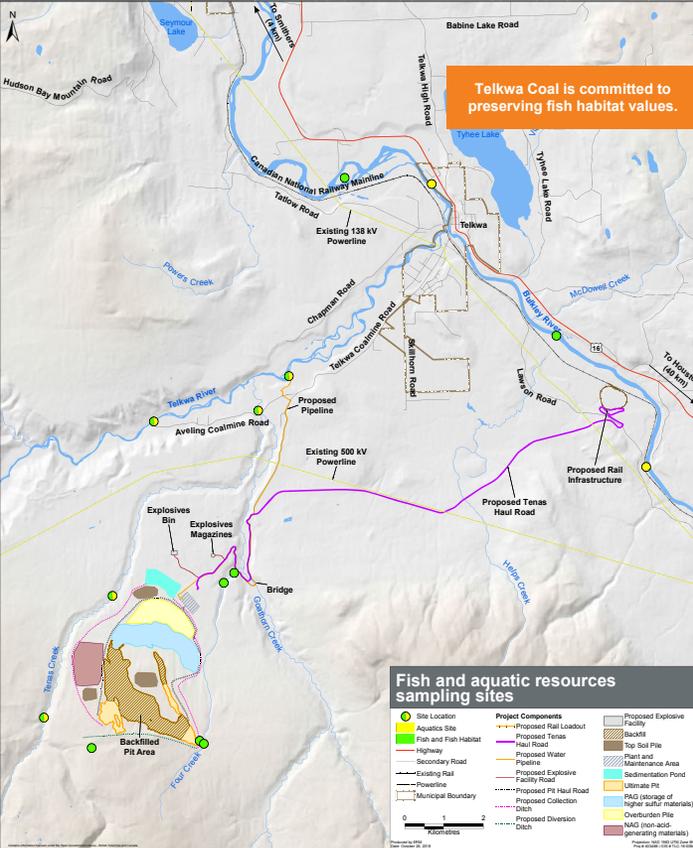
Three noise monitoring stations have been installed at the Tenas deposit, Kerr Farm and the rail loadout. The results of noise modelling can inform the human health and wildlife effects assessments. Noise sources include drilling, blasting, excavating, the process plant and rail loadout operations, and haul trucks.

Highlights of the Baseline Program

- 24-hour noise levels ranged from 20 to 36 decibels near the proposed open pit and plant area. The main sources of noise are aircraft and train horns from existing rail traffic.
- Near the proposed rail loadout, 24-hour noise levels ranged from 39 to 42 decibels. The main sources of noise at this location are trains on the tracks.

24-hour noise levels ranged from 20 to 36 decibels near the proposed open pit and plant area, quieter than a humming refrigerator.





Telkwa Coal is committed to preserving fish habitat values.

The objectives of the fish and aquatic resources baseline program are:

- to understand sediment quality to evaluate habitat suitability and develop protection and management strategies
- to identify fish presence, habitat use, and aquatic communities near proposed Project activities so impacts can be avoided or minimized
- to understand fish health and measure existing metal concentrations in fish tissues
- to collect information that will be used in the Project's Aquatic Effects Monitoring Plan

The fish and aquatic resources baseline program also incorporates historical information on the types and presence of fish and aquatic resources in watercourses in the Project area.

Highlights of the Baseline Program

- Dolly Varden and Rainbow Trout are the dominant species in the Goathorn and Tenas Creek watersheds.
- Habitat quality in Goathorn and Tenas Creeks is fair to good, typical of smaller headwater streams in the area. Four Creek is fish-bearing in areas adjacent to the proposed mine site; however, habitat quality is marginal to fair and there are multiple temporary barriers to migration that may limit fish distribution.
- Metal in fish tissues are similar among the watersheds, the initial baseline sampling found no samples above provincial guidelines for mercury and selenium.



Juvenile longnose sucker from the Bulkley River

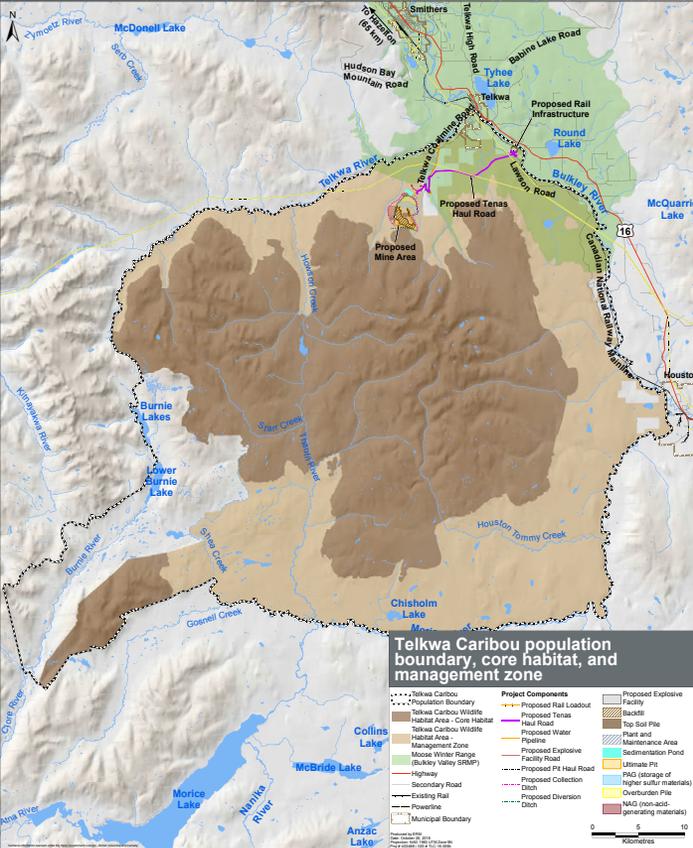


Streambed rock size samples



Algae on stone.

Telkwa Coal is committed to managing aquatic resources responsibly.



The objectives of the wildlife baseline program are:

- to identify habitat use patterns for caribou, moose and elk
- to understand presence and habitat use patterns in Project area
- to develop habitat suitability models for select species



The wildlife baseline program incorporates data from previous wildlife surveys, including surveys and radio collar data for caribou and moose, and wildlife habitat maps and wildlife habitat suitability assessment.

The majority of the Tenas Project is outside of the Bulkley Sustainable Resource Management Plan moose winter range, with the exception of the water pipeline, if that follows the existing Telkwa Coalmine Road. The proposed Project currently has the potential to affect 0.002% (or 2.8 hectares) of core habitat within the Telkwa Caribou Wildlife Habitat Area.

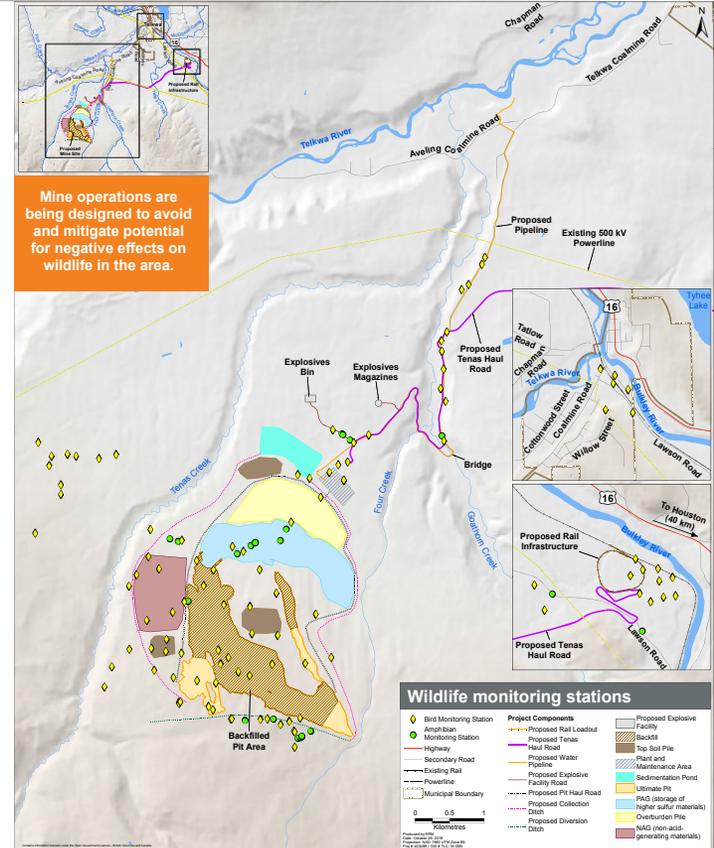
Highlights of the Baseline Program

- The Project area is used by moose, deer, black bear, wolf, lynx, coyote and elk within the proposed pit, rock stockpile and haul route areas.
- Caribou have not been detected within the Project area during the two years of baseline studies, perhaps because terrestrial and arboreal lichen habitats are limited.
- Relatively high potential for bat maternal roosting habitats within mature forest types and in riparian and mature deciduous stands within the Project area, with several species identified, including Little Brown Myotis and Long-eared Myotis.
- Migratory bird use is primarily from terrestrial bird species (for example, hummingbirds, woodpeckers, and grouse), with both mature and immature forest bird species abundance but very limited use by waterfowl due to the lack of extensive open water areas.

The Project area is used by moose, deer, black bear, wolf, lynx, coyote and elk within the proposed pit, rock stockpile and Tenas Haul Road areas.



Mine operations are being designed to avoid and mitigate potential for negative effects on wildlife in the area.



Ecosystems and Vegetation

The objectives of the ecosystem and vegetation baseline program are:

- to establish land capability and end land use objectives for the reclamation program
- to provide data to inform wildlife habitat suitability mapping and site-specific management plans

The ecosystem and vegetation baseline program incorporates available historical information related to ecosystem mapping, terrain and soils.

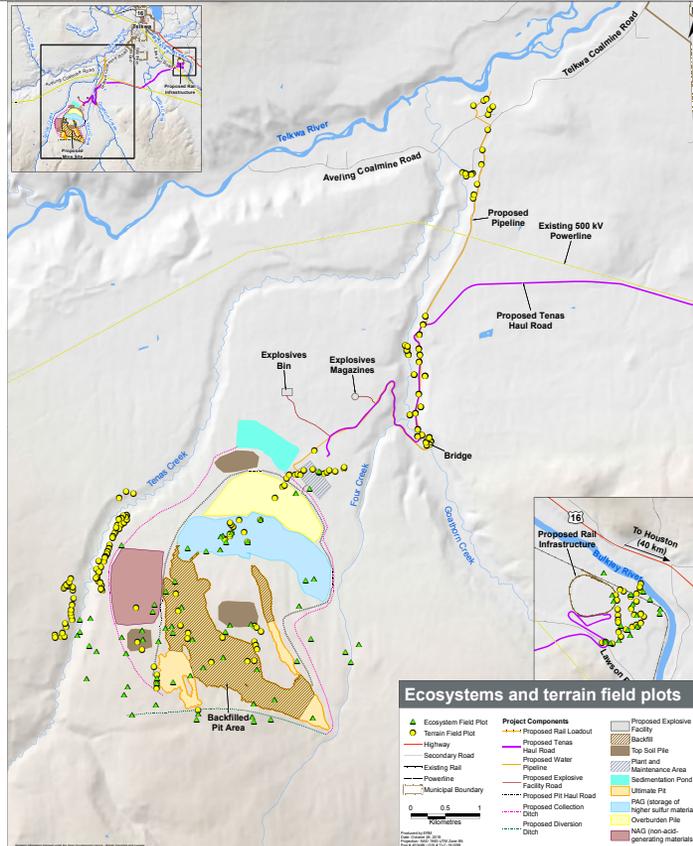
Highlights of the Baseline Program

- The majority of the Project area infrastructure (pit, rock and processing plant) is located within the Sub-boreal spruce moist-cold biogeoclimatic subzone, with the Tenas Haul Road and rail loadout within the Sub-boreal spruce dry cool subzone.
- Approximately 35% of the mapped Project area has been classified as mature or old forest and approximately 40% has been previously harvested or disturbed.



Approximately 40% of the mapped Project area has been previously harvested or disturbed.

White Spruce – Devil's club site series



Terrain, Soils and Natural Hazards

The objectives of the terrain and soils baseline program are:

- to provide a basis for terrestrial ecosystem mapping
- to understand soil texture, coarse fragment content and other factors that might influence soil salvage potential for reclamation
- to identify past and active geomorphic processes to aid in Project development

Highlights of the Baseline Program

- Glaciers, rivers, and streams have shaped the terrain and landforms found within the Project area. The study area includes:
 - flat to gently sloping plateau terrain between Goathorn and Tenas Creek and on the east side of Goathorn Creek
 - deeply incised valleys of Goathorn Creek and Tenas Creek with steep side slopes and active floodplains
 - benches along the Bulkley River.
- Glacial till is the dominant surficial material, particularly on the plateau terrain.
- Landslides and slow slope deformation have been identified on the steep slopes along Goathorn Creek and Tenas Creek; rapid bank erosion and the rain-induced flood events of 2017 and 2010 have widened the channel of Goathorn Creek over the last decade.

Terrain instability will be considered in engineering designs.



Calibrating soil coarse fragment content



Typical soil profile for moderately well drained glacial till in the study area

Cultural Use

The proposed Project is located within the traditional territory of the Wet'suwet'en. Telkwa Coal is collaborating with the Wet'suwet'en to undertake a cultural use and socio-economic study to identify and understand existing social, cultural, historic and socio-economic information. This study will identify areas of importance to the Wet'suwet'en. The study will include:

- Engagement and planning with the Wet'suwet'en
- Review and compilation of existing cultural information
- Interviews, consultations and workshops
- Site visits and flyovers of the Project area with knowledge holders
- Culture use and land use mapping

Telkwa Coal's commitment to Indigenous rights, titles, and interests is to:

- Work with Indigenous groups to mitigate effects to current use of lands and resources
- Incorporate traditional knowledge and traditional land use in Project planning
- Make participation agreements with Indigenous groups



Highlights of the Archaeological Overview Assessment

- At four of the archaeological sites, artifacts from historic mining and logging activity from the mid-1900s were found, including metal objects, timbers, glass, boots, and concrete foundations.
- At one site, records show that a cache of three stone tools was uncovered during road construction by previous tenure holders, but recent attempts to relocate these objects have been unsuccessful.
- At the proposed rail loadout, several depressions in the ground were identified, which may have once been a subterranean pithouse structure, as well cooking or roasting pits or caches. This site will now be avoided in development.
- Near three of the sites, historic culturally modified trees from the 1930s have been identified.

Archaeology

An Archaeological Overview Assessment was conducted to:

- Identify archaeological potential in the Project area
- Provide an inventory and evaluation of existing archaeological resources in the Project area
- Summarize the cultural and historical background within the Project area and adjacent regions

The Project is close to two water sources and numerous archaeological sites suggests that the area may have archaeological potential, resulting in the following management recommendations:

- Integrate Wet'suwet'en knowledge into applicable baseline studies
- Conduct a Preliminary Field Reconnaissance of the Project area
- Conduct an Archaeological Impact Assessment prior to any development or disturbance of lands, to include:
 - A desktop review of ethnographic, archaeological and historical information
 - Consultation with the Wet'suwet'en and individuals with knowledge of archaeological resources in area (where appropriate)
 - Field investigations to identify and evaluate archaeological resources
 - Development of recommendations to avoid sites or manage potential effects to cultural or archaeological resources

A Chance Find Procedure was also created to provide instructions to Project personnel should they encounter any cultural or archaeological remains.

Telkwa Coal moved its proposed rail loadout to avoid developing in an area with known archaeological potential.

About Selenium and Mining

Selenium:

- Is a naturally occurring element in the earth's crust and an essential micro-nutrient for all organisms, including people, animals and plants
- Exists in both organic and inorganic forms
- In its organic form, can be harmful in large amounts: in particular, for egg-laying animals such as birds, fish and amphibians

Selenium is a naturally occurring element in the earth's crust.

During coal or metal mining, the surface area of rock increases as it is crushed and processed. Exposure to oxygen allows any selenium contained in the rock to be more easily dissolved in water.

In its inorganic form, little of this selenium can be taken up by large aquatic organisms. However, the selenium can be absorbed by the smallest water organisms, such as algae, and converted to an organic form. The algae are then consumed by small invertebrates, who are in turn consumed by fish and aquatic birds. At each stage in this food chain, selenium increases in quantity, in a process known as bioaccumulation.

At the top of the food chain, under certain conditions, organic selenium can have negative effects on egg-laying animals, especially the offspring of adults that are exposed. Telkwa Coal pays close attention to any substance like selenium with the potential to cause harm.



Brazil nuts contain selenium



Selenium occurs naturally in rock

Evaluating Water Quality and Keeping the Environment Safe

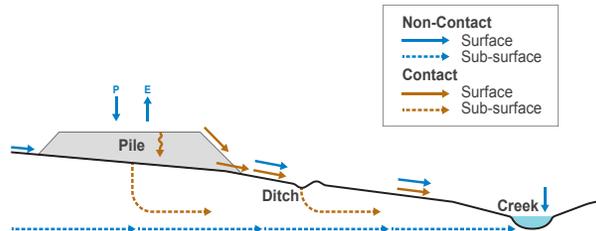
Assessment of water quality starts with finding the background levels of chemical elements that occur naturally in organisms, minerals, and other material within the waters downstream of a mine.

To date, no samples in the Tenas baseline studies have exceeded provincial environmental quality guidelines for selenium. Types of baseline study samples include:

- Groundwater
- Sediment
- Surface water
- Fish tissue

Selenium is an essential micro-nutrient for all living organisms, including people.

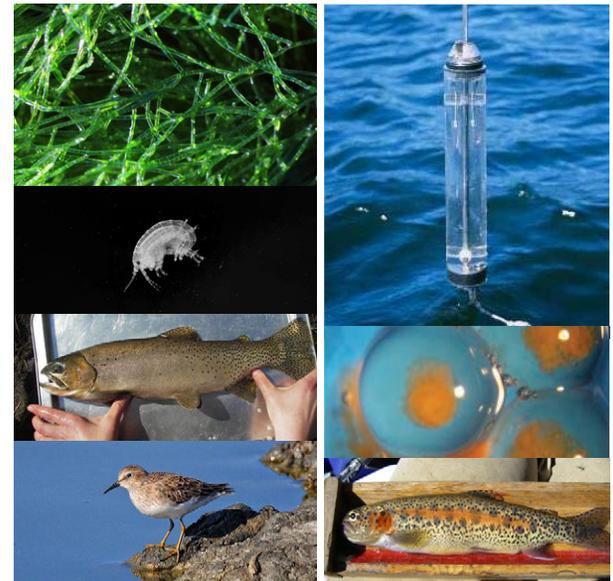
The next step is to determine what future levels may be, and what effects may occur due to mining activities. Depending on the results of this analysis, a selenium management plan may be developed.



Precipitation (P) falls on the rock pile, and the water that does not evaporate (E) can then interact with oxygen, microbes and selenium to produce a type of selenium that dissolves in water. The selenium can then be released to surface water via flow off the surface of the pile or seeps through the pile (see the brown arrows in the diagram).

Control Strategies

Our in-depth understanding of selenium, the mineral characteristics of the rock at the Tenas mine site, combined with how the mining process changes those characteristics allows us to plan ahead, before we begin operations.



Selenium bioaccumulates through the food chain

Measuring baseline selenium levels in water and fish tissue (eggs, muscle, whole body)