



ALLEGIANCE COAL  
LIMITED

**TENAS PROJECT**  
**Community Open House #4**

JUNE 2020



# A Maori Greeting from our CEO

***E te iwi o te Wet'suwet'en, tena koutou katoa.***

***E mihi ana ahau ki o maunga e tu mai nei i mua i a tatou katoa, ki o awa e rere tonu mai i nga maunga ki te moana nui a Kiwa.***

***E mihi ana hoki ahau ki o rangatira, ki o hapu me o whanau.***

***No reira, e nga tangata whenua nei, e pai tenei taku mihi ki a koutou katoa.***

***Huri noa ki a koutou o te kawanatanga BC, ki a koutou o te EAO, tena koutou katoa.***

***I te mutunga, e nga hau e wha kua huihui mai i tenei ra, nau mai, haere mai.***

To the Wet'suwet'en people, greetings to you all.

I greet and acknowledge your mountains that stand before us all, and your rivers that flow from the mountains to the great ocean of Kiwa (Pacific Ocean).

I also greet and acknowledge your chiefs, your clans and your houses.

Therefore, to the people of this land, this is my greeting to you all.

Turning now to the BC Government, and to the EAO, greetings to you all.

Lastly, to those from the four winds that have joined us today, welcome.



# Forward Looking Statements

## Forward Looking Statements

This Presentation contains forward-looking statements which are identified by words such as 'may', 'could', 'believes', 'estimates', 'targets', 'expects', or 'intends' and other similar words that involve risks and uncertainties. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions regarding future events and actions that, as at the date of this presentation, are considered reasonable. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of Allegiance Coal Limited (**Allegiance or the Company**), its Directors (**Directors**) and Management. The Directors cannot and do not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this presentation will actually occur and investors are cautioned not to place undue reliance on these forward-looking statements. The Directors have no intention to update or revise forward-looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this presentation, except where required by law. These forward-looking statements are subject to various risk factors that could cause Allegiance's actual results to differ materially from the results expressed or anticipated in these statements.

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## Coal Resources & Reserves

The coal resources referred to in this presentation were first reported in the Company's 18 June 2018 Announcement, supplemented by the Company's 26 June 2018 Announcement (together the **18 June Announcement**). The coal reserves referred to in this presentation were first reported in the Company's release of its Staged Production PFS results on 3 July 2017 (**3 July Announcement**). The Company confirms that it is not aware of any new information or data that materially affects the information included in the 18 June Announcement or the 3 July Announcement and that all material assumptions and technical parameters underpinning the estimates in the 18 June Announcement and the 3 July Announcement continue to apply and have not materially changed.





# Tenas Project - Presentation Outline

## About Telkwa Coal

1. Commitment to Community
2. Project Benefits
3. Why Coal?

## Tenas Project Overview

4. Components
5. Mine Plan

## Draft Application Information Requirements

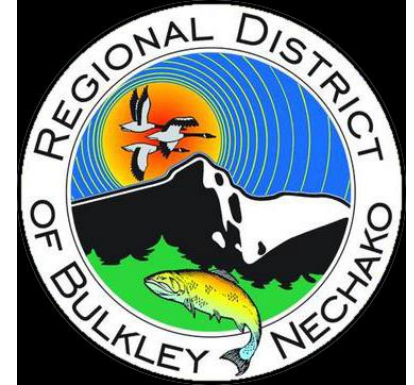
6. General Valued (VCs) / Intermediate (ICs) Components
7. Tenas Project VCs / ICs
8. Q & A





# Our Commitment to Community

Telkwa



At Telkwa Coal, we are committed to working with the Wet'suwet'en and our local community to responsibly and respectfully develop the Tenas Project.







# Community Input

***We heard you...***

***...we've reflected your input  
into our project***

- Bypass Road
- Production Level
- Paused EA process for the Wet'suwet'en



## Open Houses (EAO requires 2)

- 1<sup>st</sup> held in May 2018 and 2<sup>nd</sup> held in November 2018
- 3<sup>rd</sup> held in November 2019
- 4<sup>th</sup> in June 2020 (two sessions)

Additional meetings & interviews with neighbours



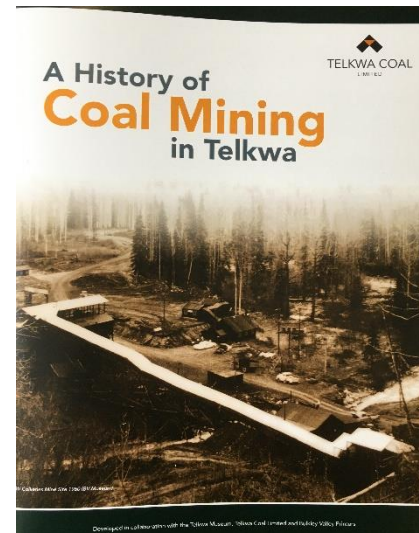


# Local Economy, Sponsorships and Donations

Contributed \$ 4.3 Million+ into the local economy since 2017.

Supporting local organizations:

- Bulkley Valley Bowmen
- Bulkley Valley Food Bank
- Bulkley Valley Hospital Foundation
- Bulkley Valley Kinsmen (Telkwa BBQ)
- Coast Mountain College
- Dze L K'ant Friendship Centre in Houston
- Smithers Curling Club
- Smithers Exploration Group
- Smithers Golf and Country Club
- Smithers Rodeo Club
- The Ark Playday Centre in Telkwa
- Telkwa Elementary School
- Telkwa Museum
- Telkwa Reading Room



Collaborating with the Telkwa Museum





# Project Benefits

## ■ Government revenue

- ~\$ 250 Million Canadian dollars
  - Revenues for federal, provincial, and local governments
  - To support community services and infrastructure, including social programs, education, and health care

## ■ Local and regional economy

- 70 + experts from Telkwa, Smithers, and the Bulkley-Nechako region
- ~150 construction jobs (at peak)
- ~170 operations jobs (at peak)
- ~255 indirect jobs (at peak operations)

Over the 25-year mine life



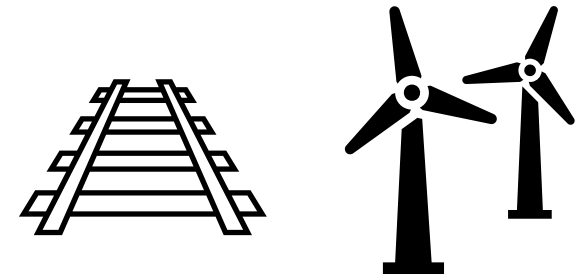




# Why Coal?

## About Steelmaking Coal

- Coal is **key** in manufacture of steel
  - No commercial substitute for coal in steel production
  - Infrastructure, transportation, health, sanitation, and food manufacturing depend on it
  - Wind turbines require 142 tonnes of steelmaking coal



## Steelmaking Coal in Canada and BC:

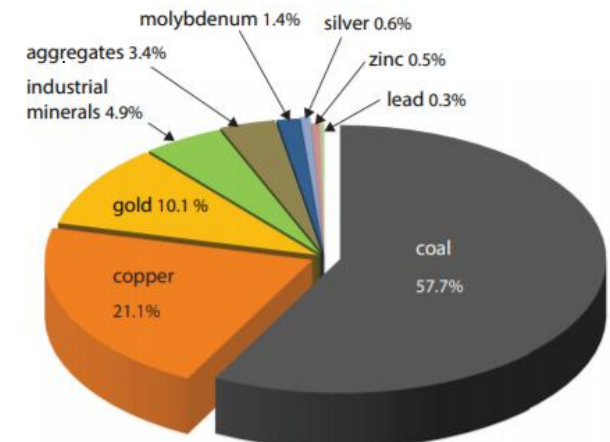
- Canada is world's 4<sup>th</sup> largest exporter of steelmaking coal
- Canada's steelmaking coal is in high demand
- Coal mining is an important part of BC's economy, generating billions in revenues & supporting thousands of jobs
- ~90% of BC's coal production is steelmaking coal

Coal and Steel are part of a lower carbon future

Coal and Steel are fundamental to our daily lives

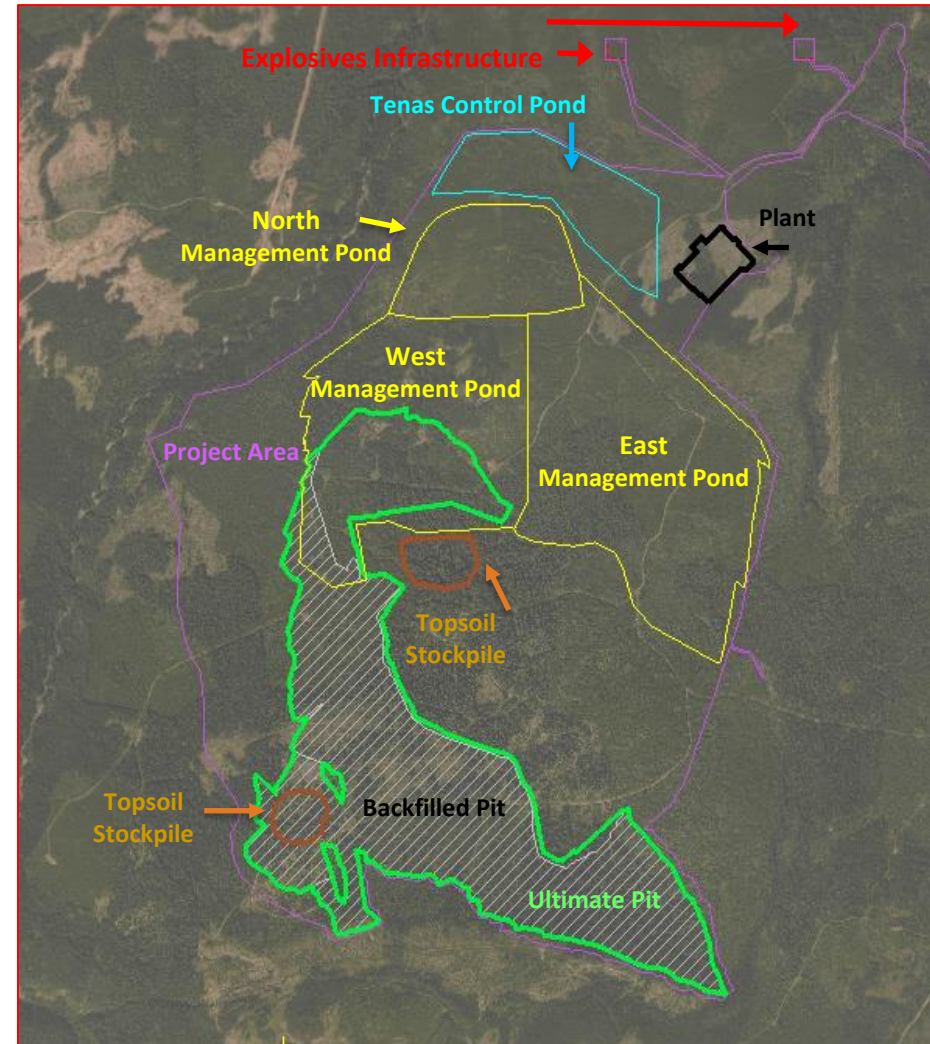
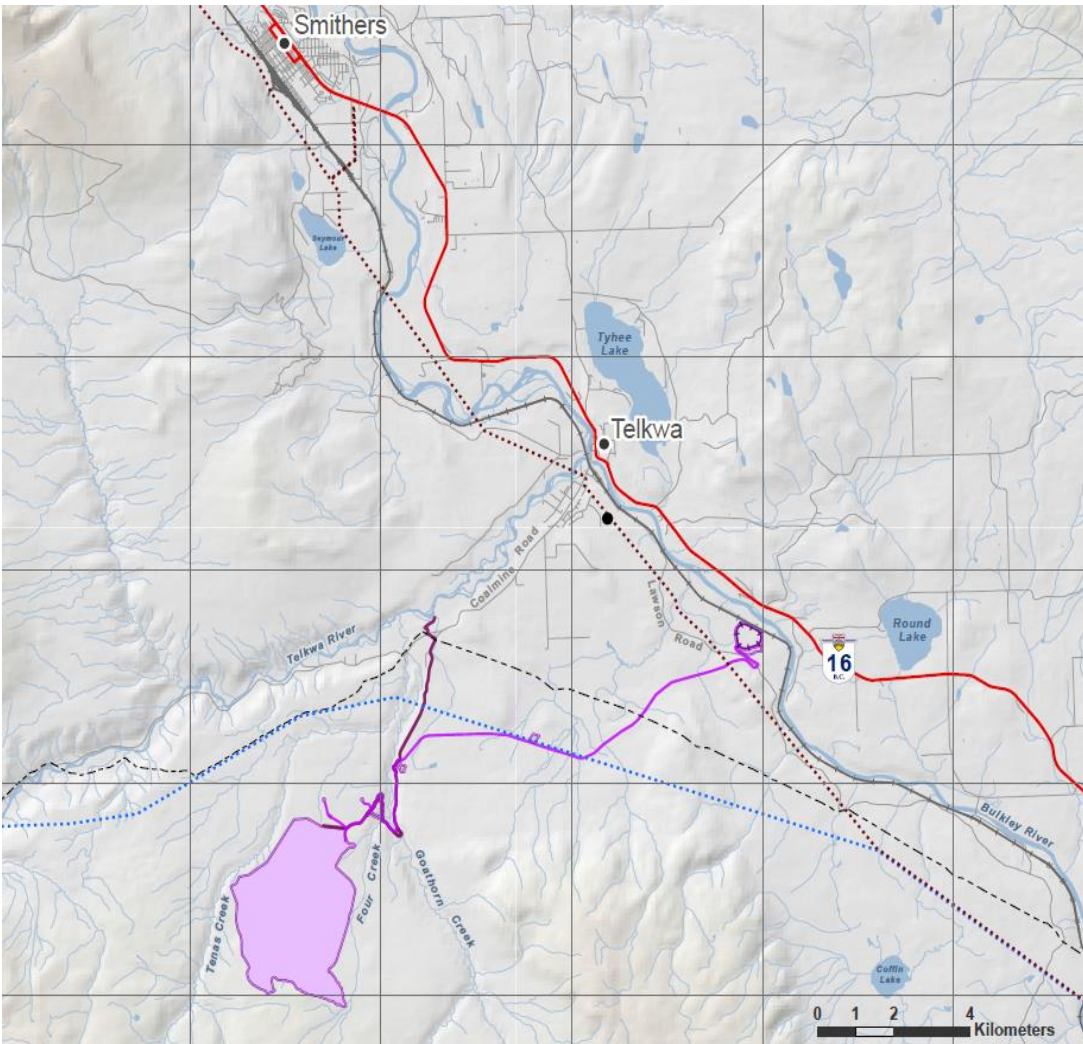
### 2019 forecast value of BC's mineral production by commodity

British Columbia Ministry of Energy, Mines and Petroleum Resources, 2020





# Regional Location and Key Components







# Tenas Project – Components (mining)

Open pit



Storage piles for rock and overburden



Haulroads and access roads



# Tenas Project – Components (Processing, and Maintenance)

## Coal Processing Plant



## Maintenance and Warehouse Building



## Tire Shop and Light Vehicle Shop





# Tenas Project – Components (Water)



Diversion Ditches



Management and Control Ponds



Water Supply Well





# Tenas Project – Components (explosives infrastructure, ancillary buildings)

Explosive Infrastructure; site and magazine



Administration, first aid, mine dry, and laboratory buildings



Fuel, propane and lubricant storage facilities







# Tenas Project – Components (roads, power, bridge)

## Tenas Access Corridor

- 11 km Bypass Road + upgrades to ~6.5 km of existing roads

## Powerline

- 3.5 km long 25 kV (25 kV to 600V substation adjacent to the Coal Processing Plant)

Bridges over Goathorn and other creeks





# Tenas Project – Components (rail)



## Rail

- Infrastructure (~2.5 km rail loop connected to CN line)





# Updates to Mine Plan

## 1. Design of Management Ponds:

- Build retaining structures on existing topo =
  - less disturbance
  - less material movement and
  - less effect on the surrounding environment.

## 2. Pit shape:

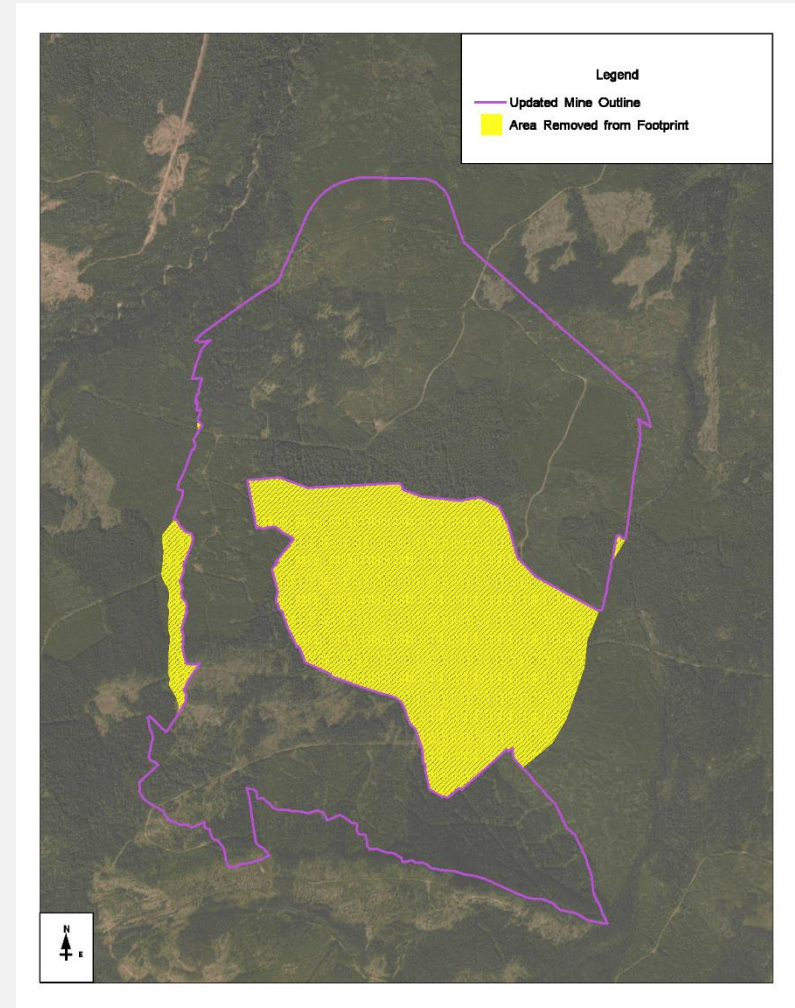
- Decrease disturbance and with same coal volumes.
- Preserves more of Four Creek watershed

## 3. Processed Rock

- Now submerged underwater vs *dry cover*

## 4. Tenas Control Pond moved

- To a lower elevation, reducing need to pump water into pond.





# Draft Application Information Requirements (dAIR)

## ***What is a dAIR?***

- A checklist outlining the EA content
- *EAO Guidance 2013*

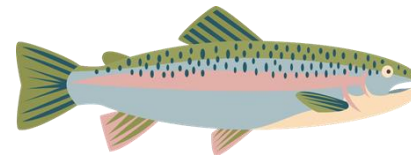
EA Checklist ✓

## ***What are Valued (or Intermediate) Components?***

- Important elements of the natural and human environment (e.g. *wildlife*)

## ***What are Subcomponents?***

- Describe individual species, species groups or elements with similar aspects in the assessment of the valued component (e.g. *caribou, moose, grizzly bear*)







# Valued or Intermediate Components and Indicators

## What is an Intermediate Component (IC)?

- Elements that are part of a pathway to a Valued Component (VC)
  - Information about the IC is needed to support the assessment of a VC.
  - Example Intermediate Components to Receptor Components:

### Atmospherics (IC)

- air quality (subcomponent)

### Water (IC)

- water quality (subcomponent)

### VCs

#### Birds

- Indicator = change in habitat

#### Wildlife

- Indicator = change in habitat

#### Human Health

- Indicator = change in human health from biophysical determinants of health

#### Fish and Fish Habitat

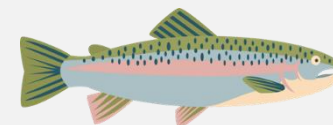
- Indicator = change in fish health

#### Vegetation

- Indicator = change in extent



Measurable variables





## Valued Components (VCs)

Pillar	Valued Component	Subcomponents
Environment	Fish and fish habitat	Fish habitat
		Fish
	Vegetation	Old growth forest
		Wetlands
		Listed ecological communities
		Culturally important species
		Rare plants and lichens
	Wildlife	Furbearers: American marten, Wolverine
		Caribou
		Grizzly bear
		Moose
		Bats (Little Brown myotis, Northern myotis)
		Western toad
	Avian species	Migratory breeding birds
		Listed bird species
		Raptors
Economic	Labour market	NA
	Economic development	Local Business and Industry
Social	Infrastructure and services	Housing and accommodation
		Community infrastructure and services
		Transportation
	Land and resource use	Commercial land use
		Public recreation use
		Current use of land and resources for traditional purposes
	Community well-being	NA
Heritage	Heritage resources	Archaeological resources
		Historic and cultural sites
Health	Human health	NA

**Table 3: Valued Components and Subcomponents for the Tenas Project from the dAIR**





# Intermediate Components (ICs)

Pillar	Intermediate Component	Subcomponents
Environment	Atmospheric Environment	Air quality
		Greenhouse gas (GHG) emissions
		Noise
	Terrain and Soils	Soil quality
		Terrain stability
	Surface Water	Surface water quantity
		Surface water quality
Social	Groundwater	Groundwater quantity
		Groundwater quality
	Aquatic Resources	NA
	Demographics	NA
		Visual Quality
	Visual Resources	Ambient Light

**Table 4: Intermediate Components and Subcomponents for the Tenas Project from the dAIR**

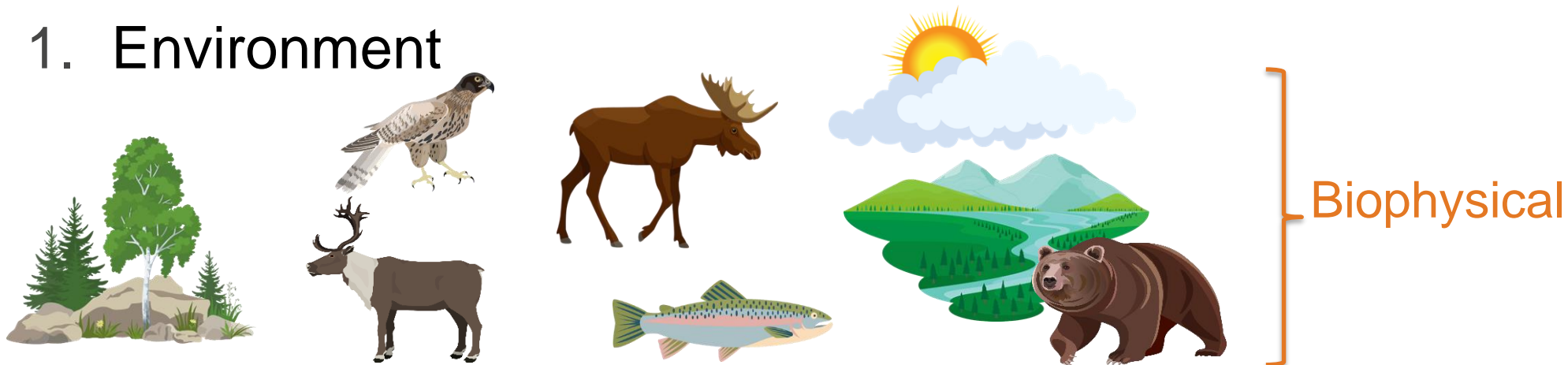


# BC EAA 5 Pillars – Highlights of the dAIR

Valued component = VC

Intermediate component = IC

## 1. Environment



## 2. Economic

## 3. Social

## 4. Health

## 5. Heritage







# Biophysical VCs and ICs

Valued component = VC

Intermediate component = IC

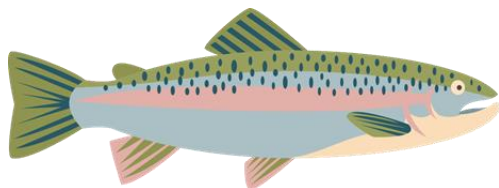
## Biophysical

### Water

- Surface Water (IC)
- Groundwater (IC)
- Aquatic Resources (IC)



- Fish and Fish Habitat (VC)



### Air

- Atmospheric Environment (IC)



### Land

- Wildlife (VC)
- Vegetation (VC)
- Avian Species (VC)



- Terrain and Soils (IC)





# Surface Water and Groundwater (ICs)

Water

ICs	Subcomponents	Indicators
Surface Water and Groundwater	Groundwater quantity	Change in: <ul style="list-style-type: none"><li>Discharge rates to surface water (streams and creeks)</li><li>Groundwater levels (e.g. wells)</li></ul>
	Surface Water quantity	Change in surface water flow rates (m <sup>3</sup> /s)
	Surface Water and Groundwater quality	Change in example parameters <ul style="list-style-type: none"><li>E.g. total and/or dissolved elements, nutrients</li></ul>

Measurable variables

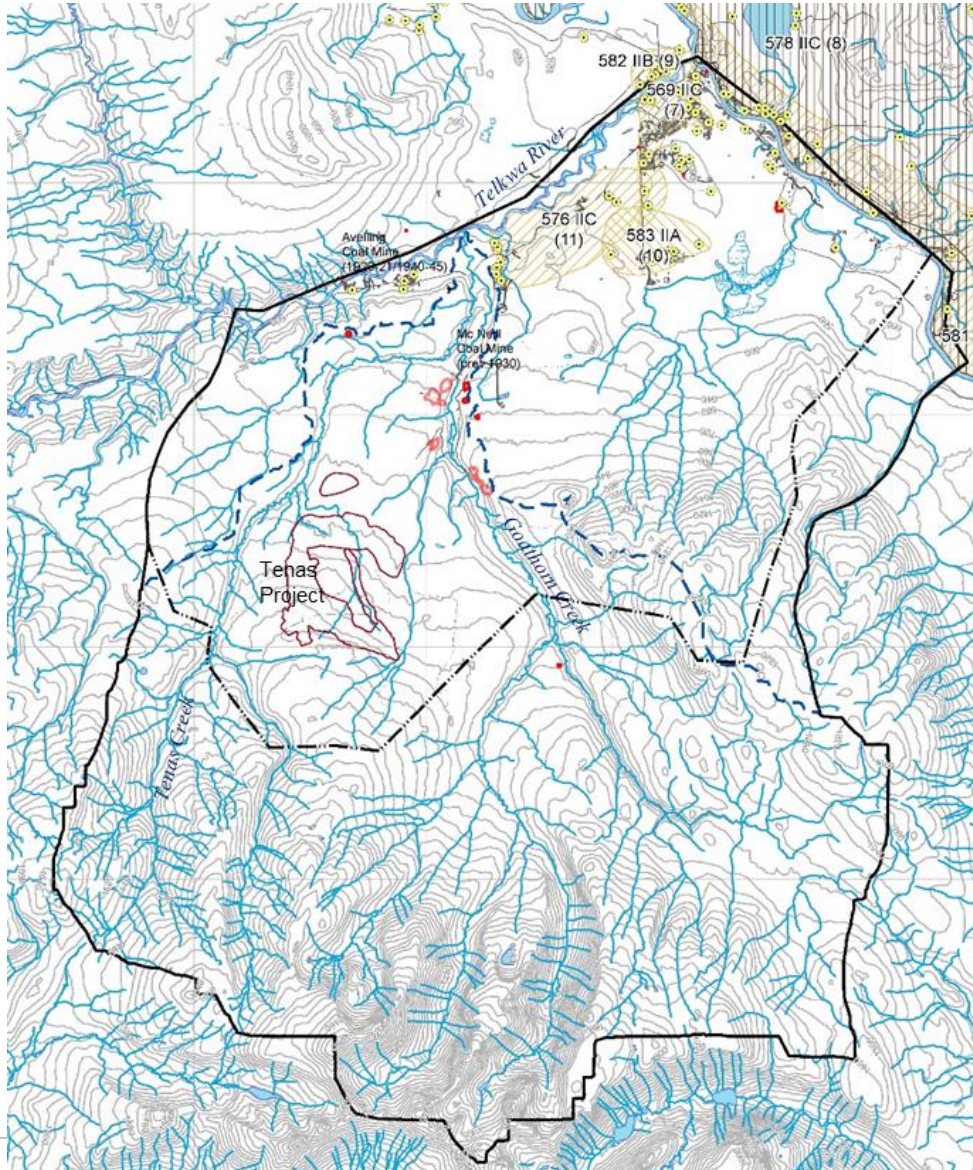






# Groundwater – Study Areas

Water



Protecting water sources and managing our water use.

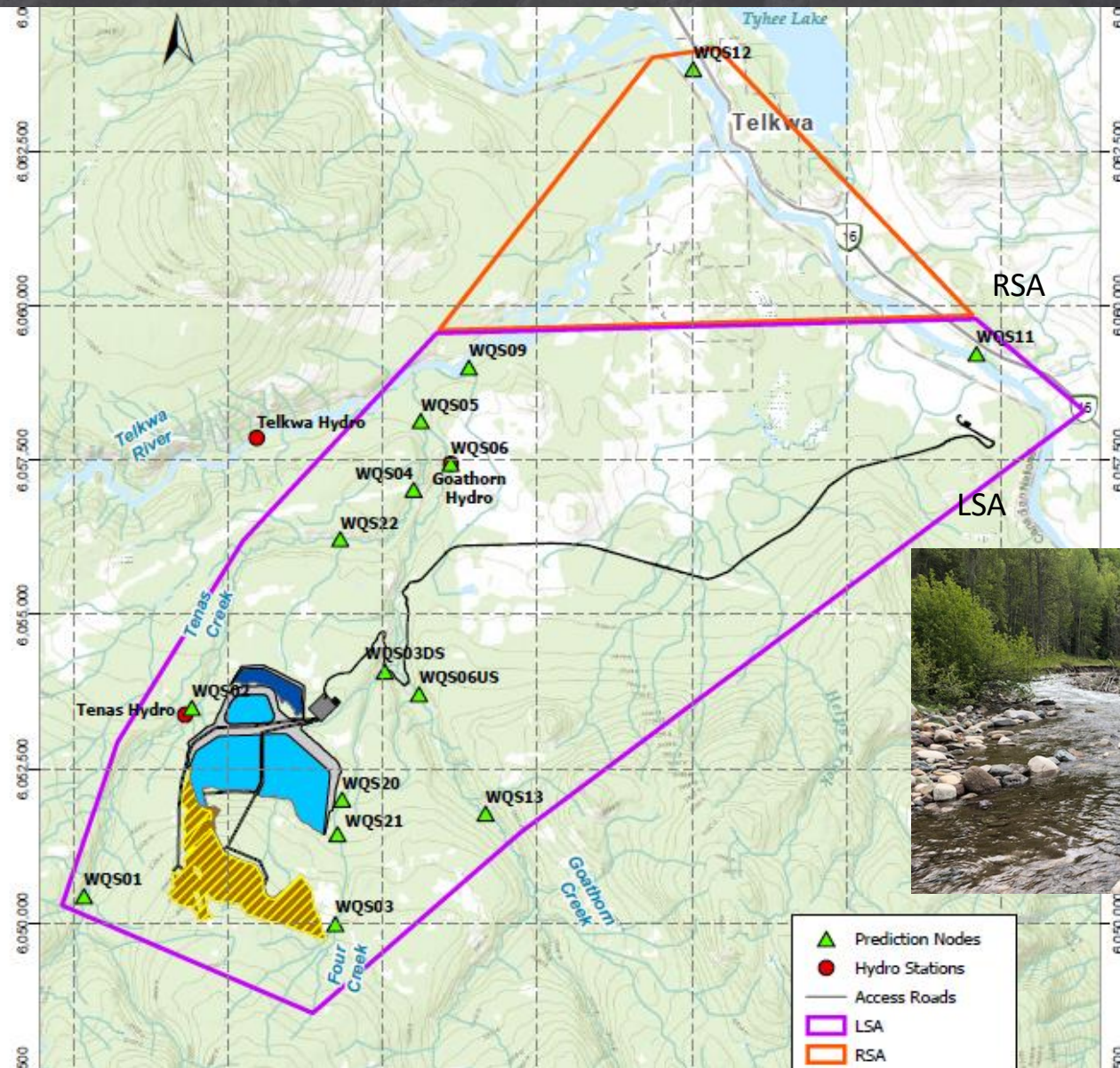




# Surface Water – Study Areas

Water


Protecting water sources and managing our water use.

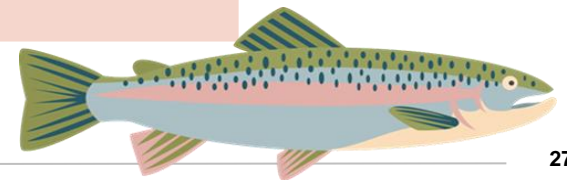






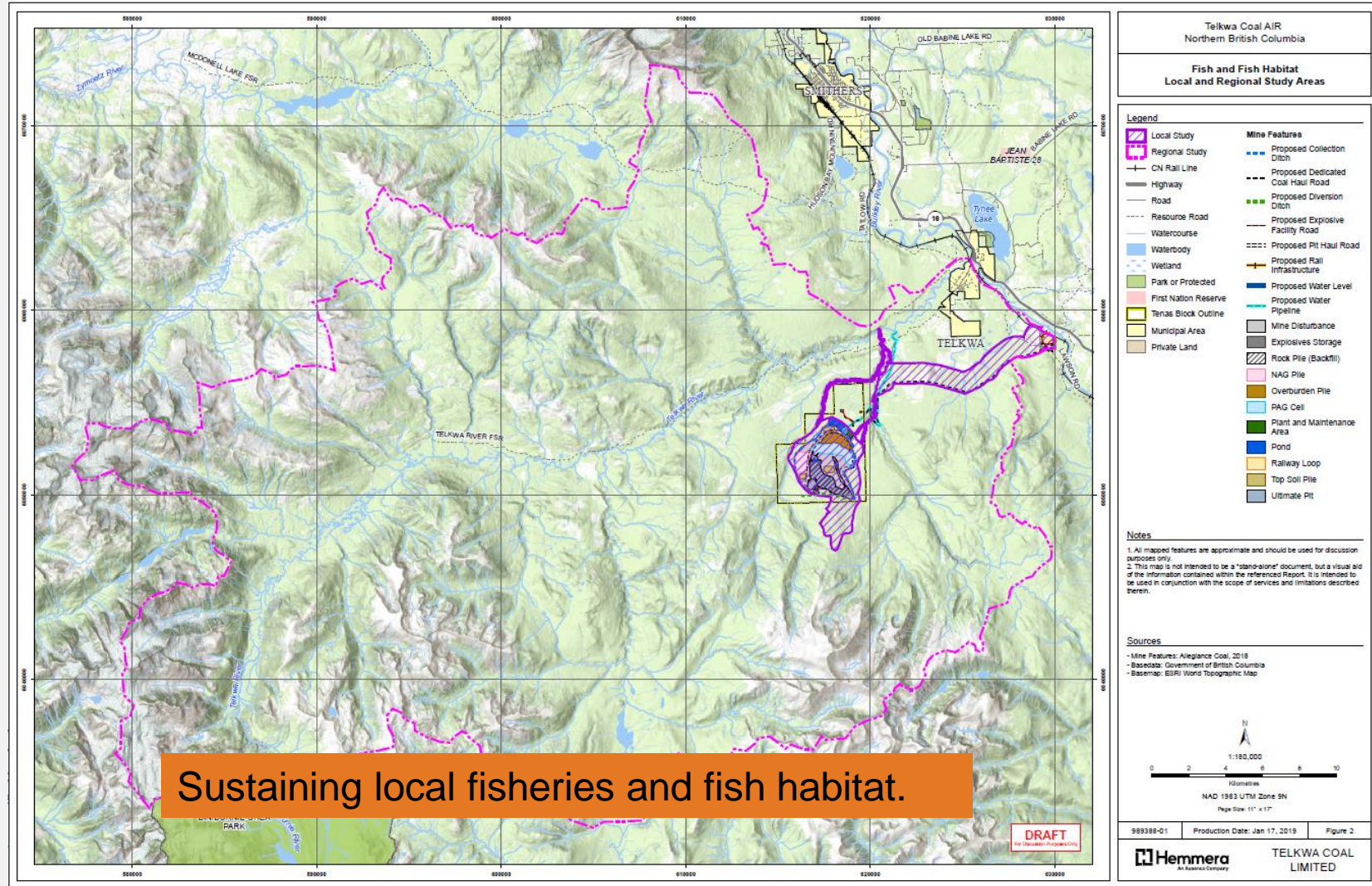
# Aquatic Resources (IC) / Fish (VC)

	Subcomponent	Indicators	 <b>Measurable variables</b>
Aquatic Resources (IC)	Aquatic resources (benthic invertebrates, periphyton, sediment quality)	Change in: <ul style="list-style-type: none"><li>▪ <u>Composition, abundance, diversity</u> of periphyton and benthic invertebrates</li><li>▪ Concentrations of contaminants of potential concern in sediments relative to toxicological benchmarks</li></ul>	
	Fish habitat	Change in areal <u>extent</u>	
Fish and Fish Habitat (VC)	Fish	Change in: <ul style="list-style-type: none"><li>▪ Fish health</li><li>▪ Abundance</li><li>▪ Condition</li></ul>	





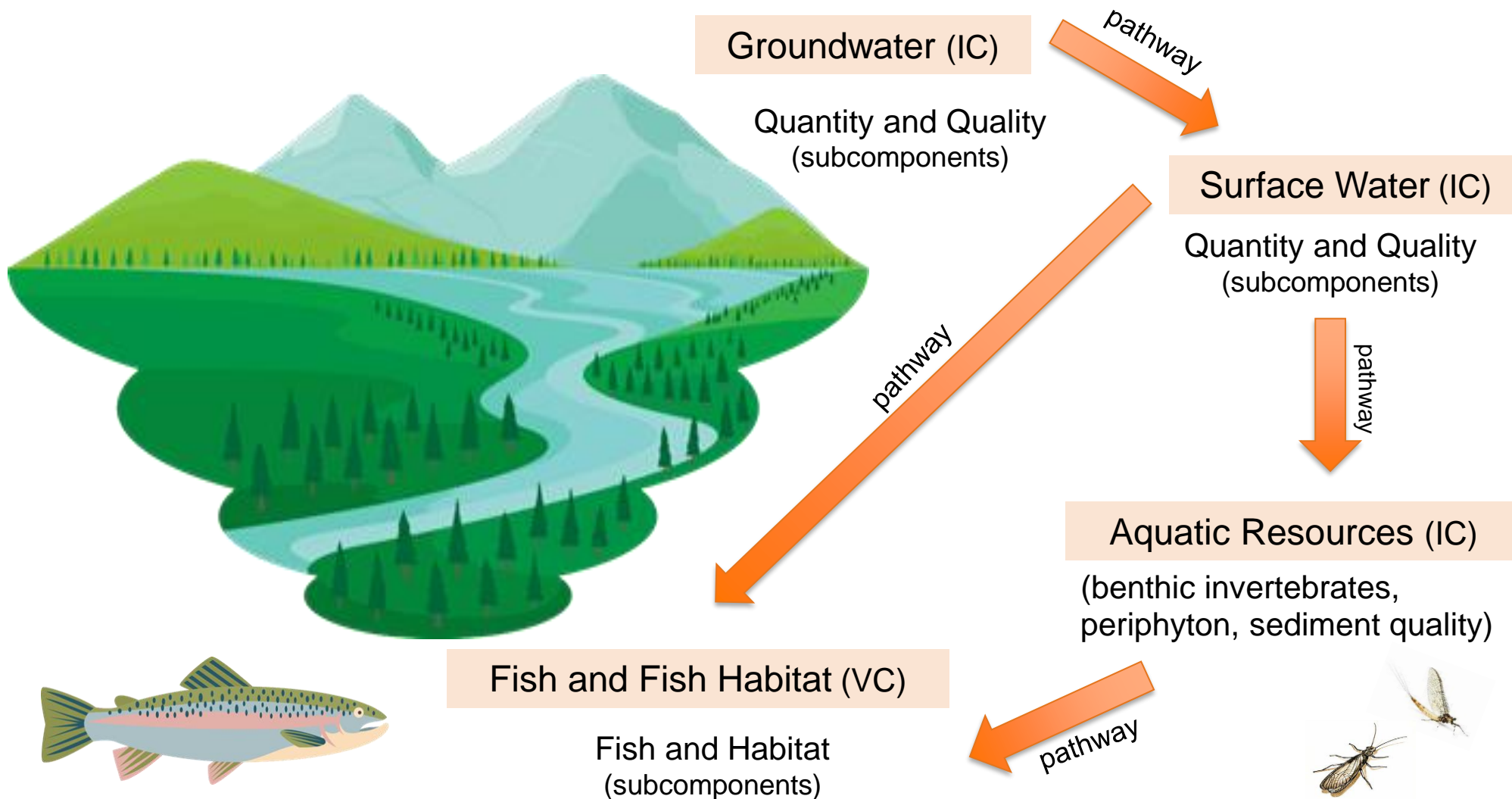
# Aquatic Resources (IC)/Fish and Fish Habitat (VC) – Study Area







# Summary – Water





# Atmospheric (IC)

Air

	Sub components	Indicators
Atmospheric Environment	Air quality	Change in air quality parameters: <ul style="list-style-type: none"><li>SO<sub>2</sub>, NO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, TSP</li></ul>
	GHG	Change in GHG emissions: <ul style="list-style-type: none"><li>CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O</li></ul>
	Noise	Change in noise levels: <ul style="list-style-type: none"><li>Noise levels (day and night), low frequency</li></ul>

Measurable variables







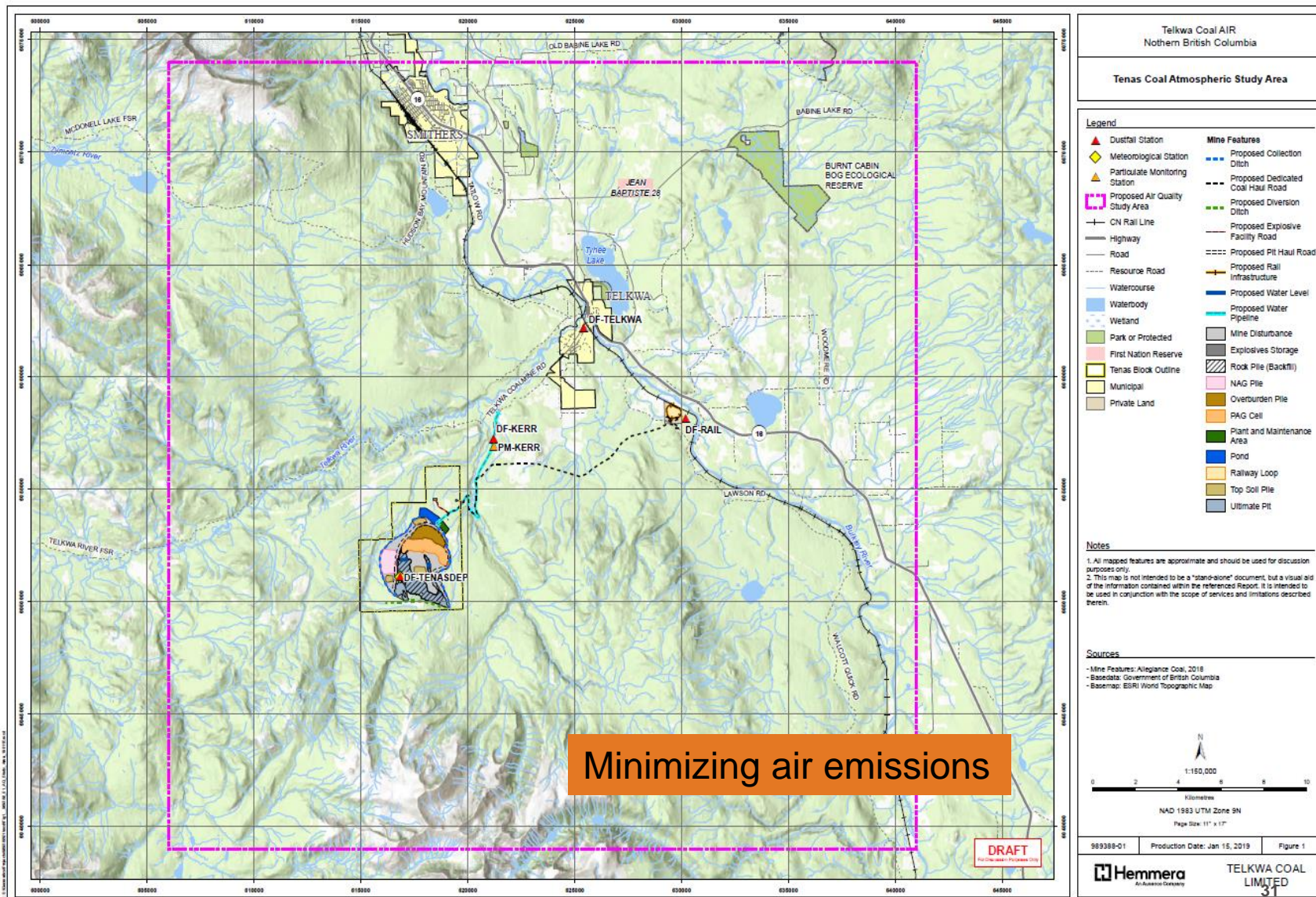
# Air Quality – Study Areas

Air

Mitigations Measures will be implemented and include:

- Water trucks and topper agents used on traffic areas and stockpiles.
- Heights of stockpiles to be limited.
- Drop heights will be minimized for loading.
- Overburden piles and topsoil stockpiles will be revegetated.
- Vehicle speed will be managed.

Minimizing air emissions

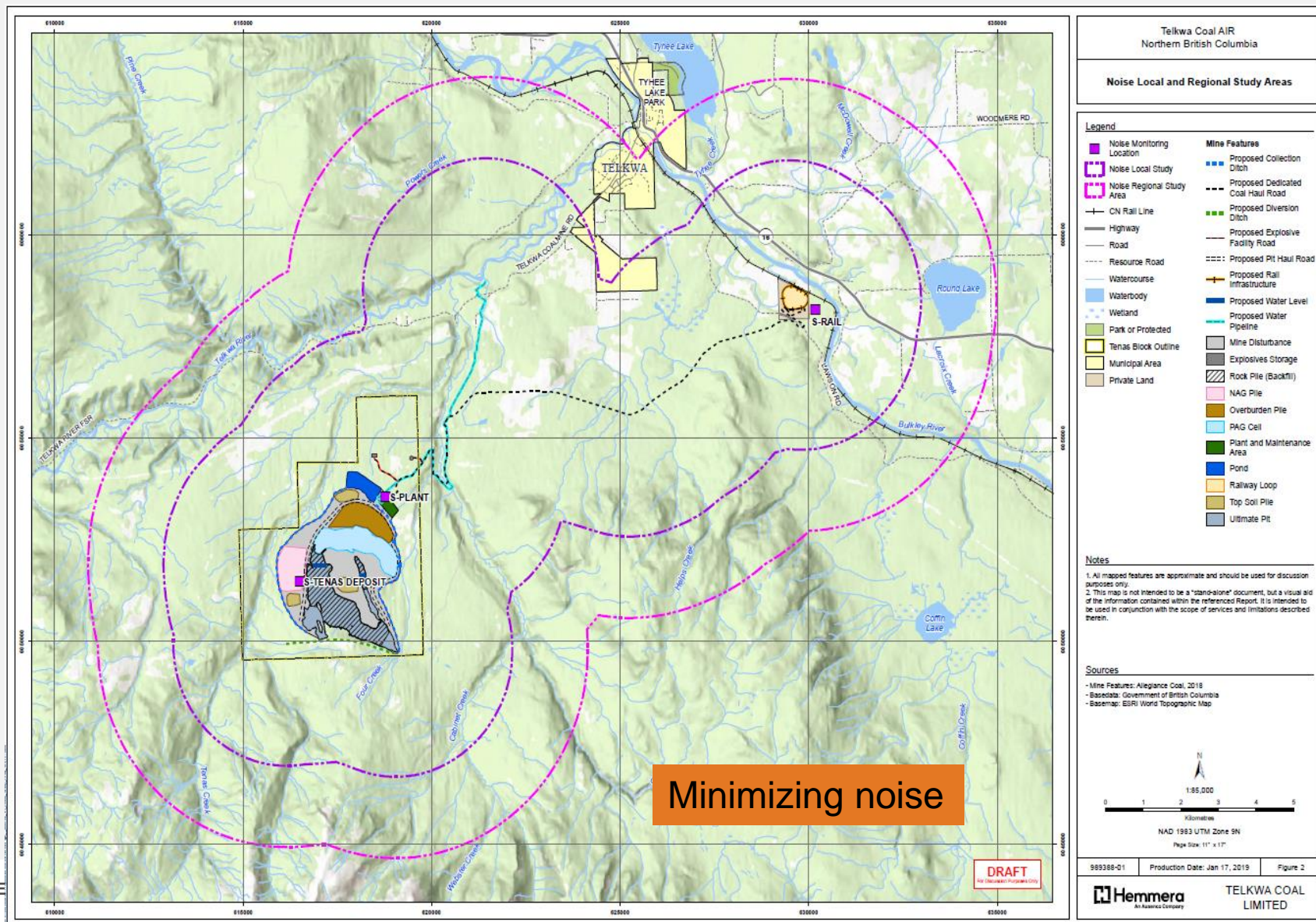






# Noise – Study Areas

Air







# Terrain & Soils (IC) / Vegetation (VC)

Land

Measurable variables

	Subcomponents	Indicators
Terrain and Soils (IC)	Soil quality	Change in physical and chemical properties of soil in context of land use capability
	Terrain stability	Change in: <ul style="list-style-type: none"><li>▪ Terrain stability</li><li>▪ Terrain morphology</li></ul>
Vegetation (VC)	Old growth forest	Change in: <ul style="list-style-type: none"><li>▪ Extent</li><li>▪ Structural stage</li></ul>
	Wetlands (biodiversity, water quantity and quality, and habitat function)	Change in: <ul style="list-style-type: none"><li>▪ Extent of wetland communities</li></ul>
	Listed ecological communities	Change in extent, abundance or availability
	Culturally important species	
	Rare plants and lichens	Change in extent for known occurrences



# Wildlife (VC) / Birds (VC)

Land

	Subcomponents	Indicators
Wildlife (VC)	Caribou	Change in: <ul style="list-style-type: none"> <li>Habitat</li> <li>Sensory Disturbance</li> <li>Mortality</li> <li>Movement (as an Indicator for Grizzly Bear, Caribou, Wolverine, and Western Toad)</li> </ul>
	Moose	
	Grizzly Bear	
	Furbearers (Marten and Wolverine)	
	Bats	
	Western Toad	
Avian Species (VC)	Migratory breeding birds	Change in: <ul style="list-style-type: none"> <li>Habitat</li> <li>Sensory disturbance (e.g. light, noise)</li> <li>Mortality</li> </ul>
	Listed bird species	
	Raptors	



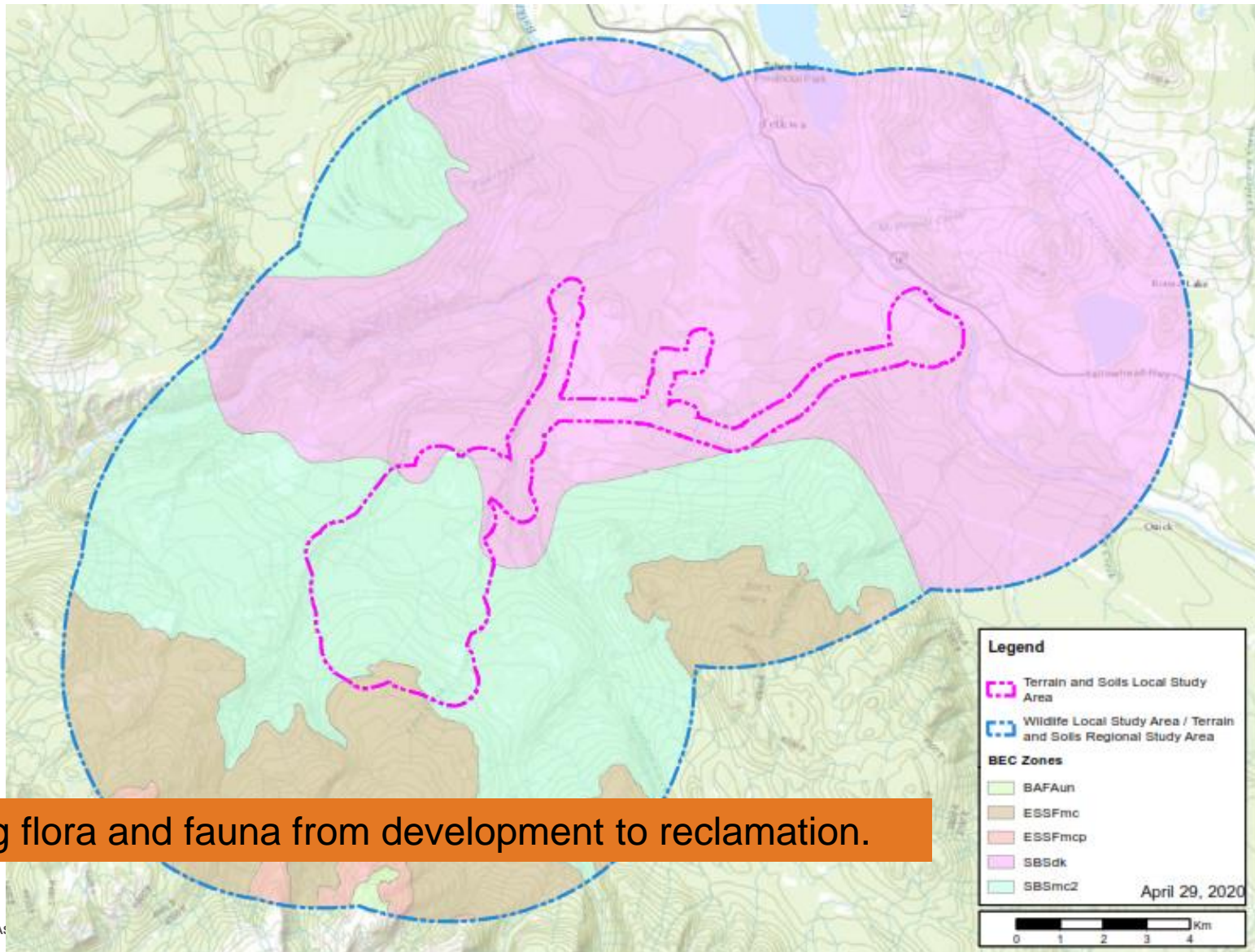
Measurable variables





# Terrain and Soils - Study Areas

Land



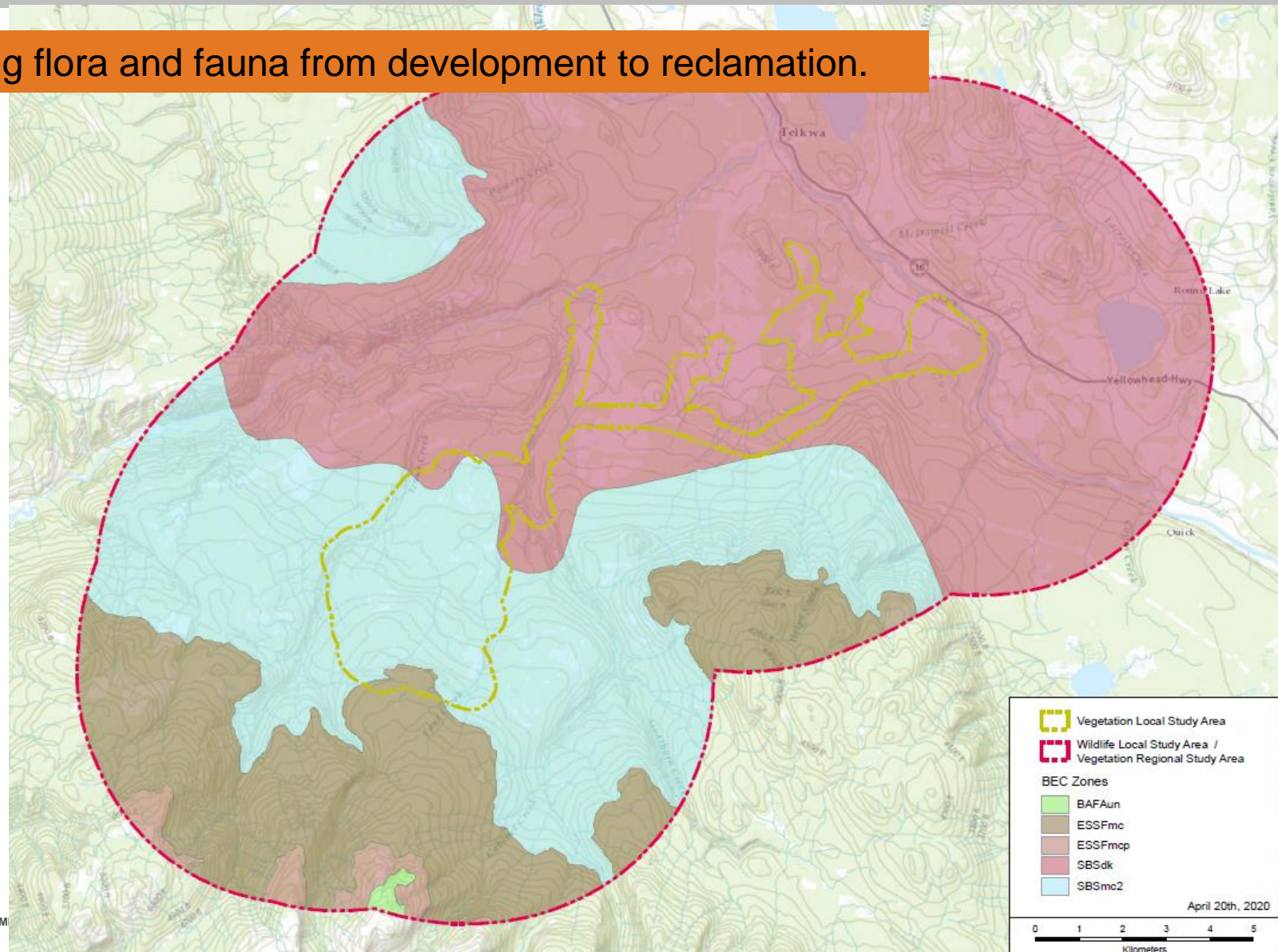
Protecting flora and fauna from development to reclamation.



# Vegetation - Study Areas

Land

Protecting flora and fauna from development to reclamation.

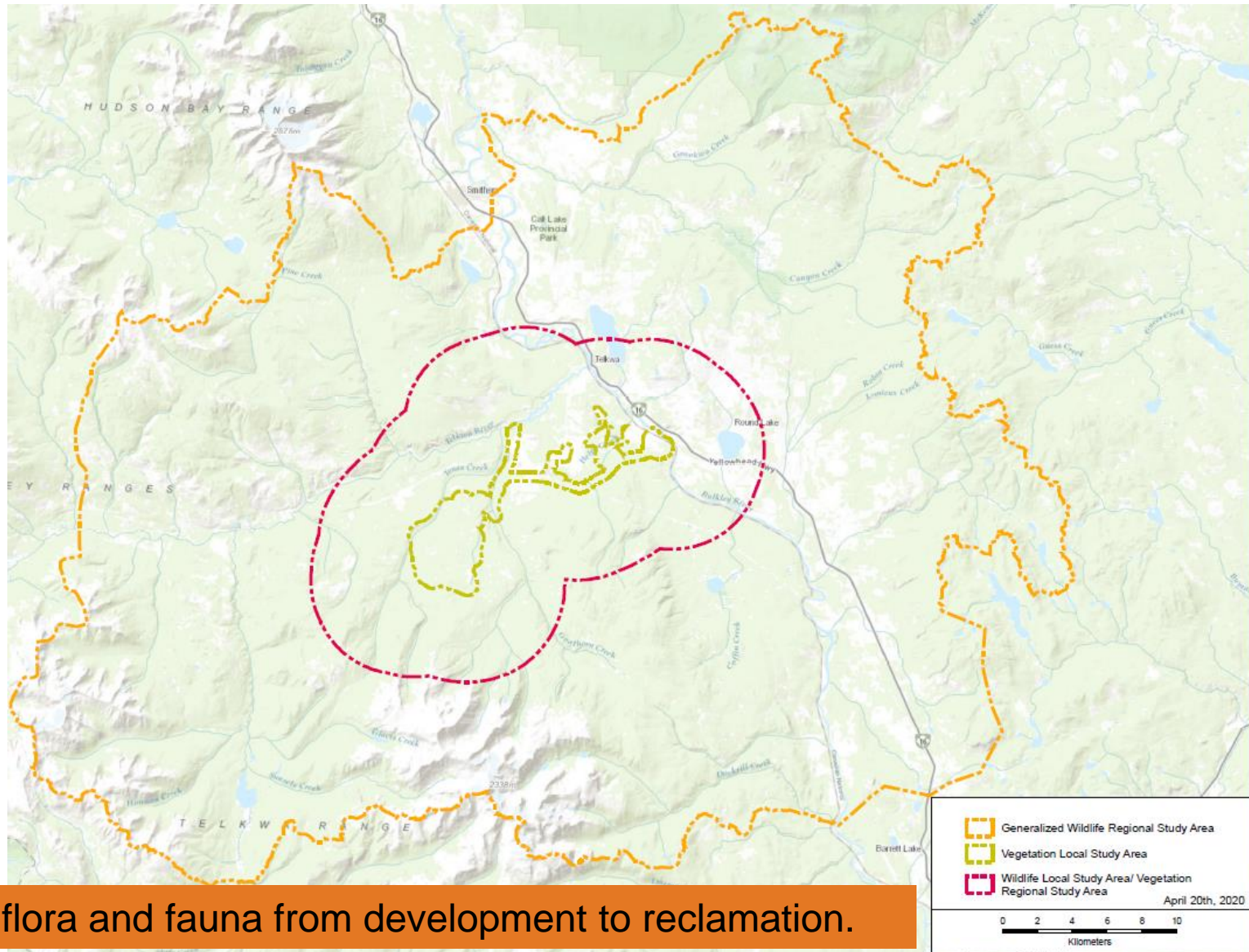






# General Wildlife, Bird - Study Areas

Land



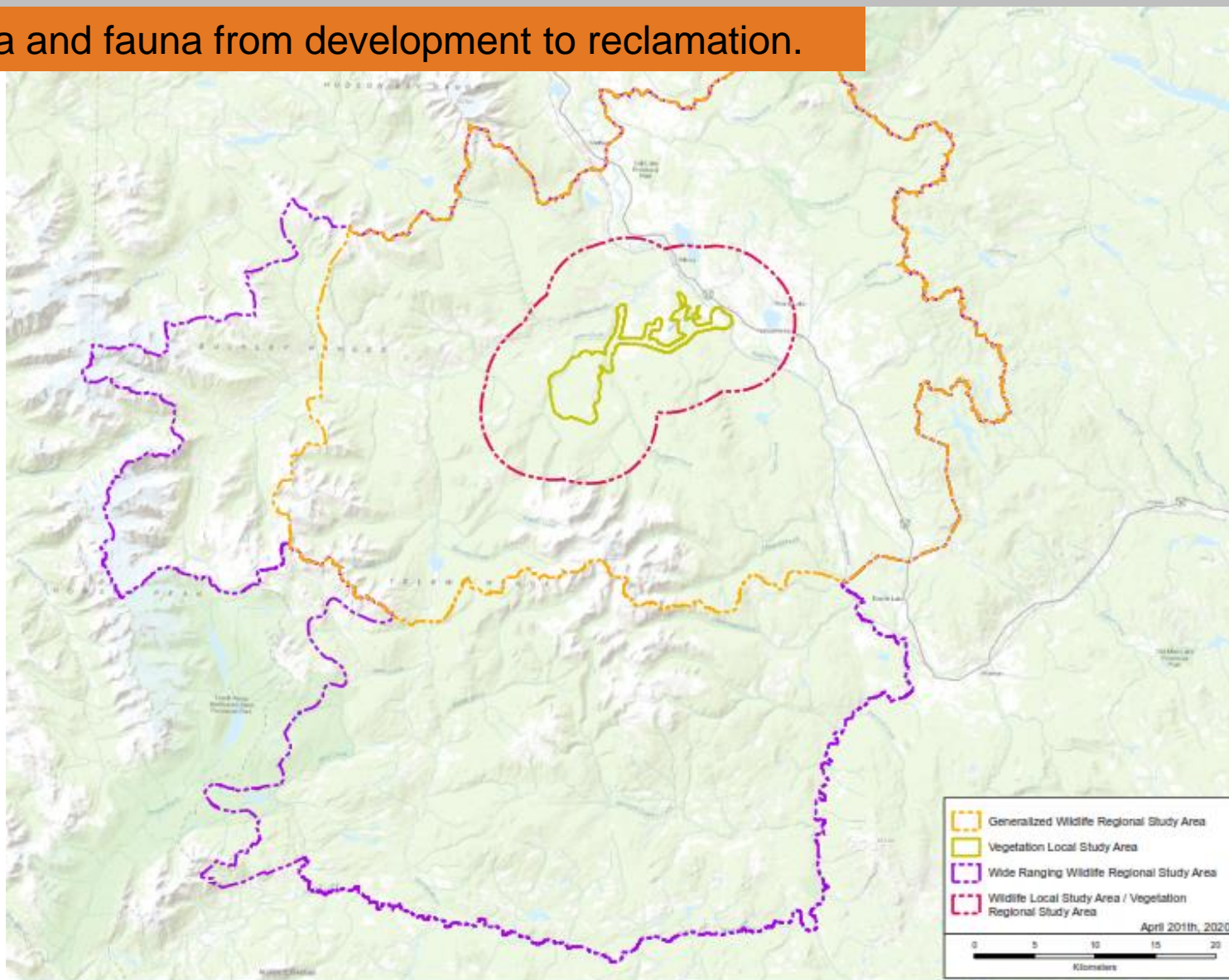
Protecting flora and fauna from development to reclamation.



# Wide Ranging Wildlife - Study Areas

Land

Protecting flora and fauna from development to reclamation.



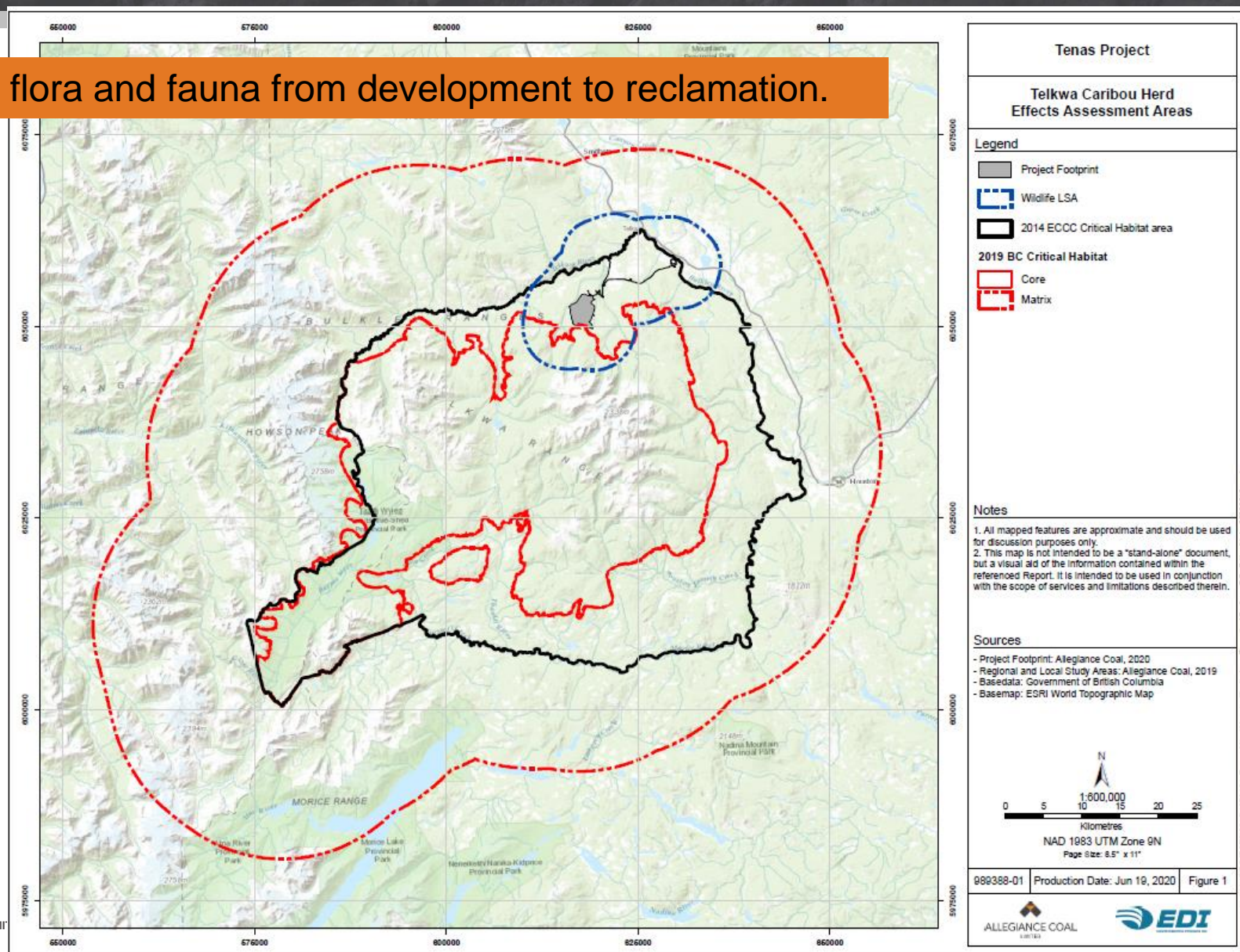




# Caribou – Study Areas

Land

Protecting flora and fauna from development to reclamation.

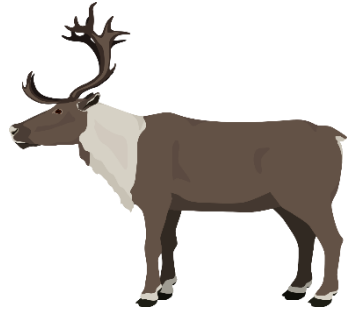




# Summary - Land

## Wildlife (VC)

- Furbearers (marten, wolverine)
- Caribou
- Grizzly Bear
- Moose
- Bats
- Western toad (subcomponents)



## Terrain and Soils (IC)

- Soil Quality and Terrain Stability (subcomponents)

## Avian Species (VC)

- Migratory breeding birds
- Listed bird species
- Raptors (subcomponents)



## Vegetation (VC)

- Old growth forest
- Wetlands
- Listed ecological communities
- Culturally important species
- Rare plants and lichens (subcomponents)



## Land





# People-related VCs and ICs

Valued component = VC

Intermediate component = IC

## Economic



- Labour Market (VC)

## Social

- Community Well-being (VC)
- Infrastructure & Services (VC)
- Land & Resource Use (VC)
- Visual Resources (IC)
- Demographics (IC)

## Health



- Human Health (VC)

## Heritage



- Heritage Resources (VC)



- Economic Development (VC)





# Economic Development and Labour Market VCs

Economic

	Subcomponents	Indicators
Economic Development (VC)	Local business and industry	<p>Change in:</p> <ul style="list-style-type: none"><li>▪ Distribution in employment across industries (economic diversity)</li><li>▪ Capacity/supply constraints in services and goods supply and contracting (quantitative and qualitative)</li><li>▪ Compatibility/consistency of Project with existing economic development plans or strategies of government (qualitative)</li><li>▪ Forestry: change in marketable timber volume</li><li>▪ Tourism: change in services and revenue</li><li>▪ Economy during decommissioning/reclamation, post-closure and potential downturns</li></ul>
Labour Market (VC)	N/A	<p>Change in:</p> <ul style="list-style-type: none"><li>▪ Number of workers by occupation, industry affiliation, and region of residence</li><li>▪ Participation and unemployment rate</li><li>▪ Difference between unemployment rate and prevailing regional rate of unemployment</li><li>▪ Barriers to Indigenous participation in Project-related economic benefits</li><li>▪ Income levels and labour income</li></ul>

Measurable variables





# Infrastructure & Services / Community Well-being (VCs)

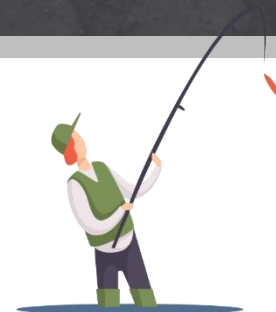
	Subcomponents	Indicators
Infrastructure and services (VC)	Housing and accommodation	Change in <ul style="list-style-type: none"> <li>▪ Demand for housing and accommodation</li> <li>▪ Active residential listings</li> <li>▪ Housing costs, Property taxes, Vacancy rates</li> </ul>
	Community infrastructure and services	Change in <ul style="list-style-type: none"> <li>▪ Supply and demand for all community services (<i>education, child care, health care, and recreation</i>) and community infrastructure</li> <li>▪ Supply and demand for emergency services (<i>policing, fire, and search and rescue</i>)</li> </ul>
	Transportation	Change in level of service (change in road, rail, air traffic patterns and infrastructure)
Community Well-Being (VC)	N/A	Change in social and economic determinants of health (as defined by Health Canada) including: <ul style="list-style-type: none"> <li>▪ Food security</li> <li>▪ Cost of living</li> <li>▪ Community cohesion</li> <li>▪ Mental Health</li> </ul>

Measurable variables



# Land and Resource Use (VC)

Social



	Subcomponents	Indicators
Land and Resource Use (VC)	Commercial Land Use	<p>Compatibility with existing land use plans. Change in</p> <ul style="list-style-type: none"> <li>Access to land use areas</li> <li>Sensory disturbance to existing land and resource uses</li> <li>Quantity and quality of resources supporting existing land and resource uses</li> </ul>
	Public Recreation Use	<ul style="list-style-type: none"> <li>Access to land use areas</li> <li>Sensory disturbance</li> <li>Quantity and quality of resources supporting recreational activities</li> <li>Interference with recreational infrastructure</li> </ul>
	Current use of land and resources for traditional purposes	<ul style="list-style-type: none"> <li>Access to lands and resources</li> <li>Sensory disturbance</li> <li>Quantity and quality of resources</li> <li>Maintenance of preferred methods and timing of land and resource use</li> </ul>

Measurable variables





# Demographics (IC) / Visual Resources (IC)



Social

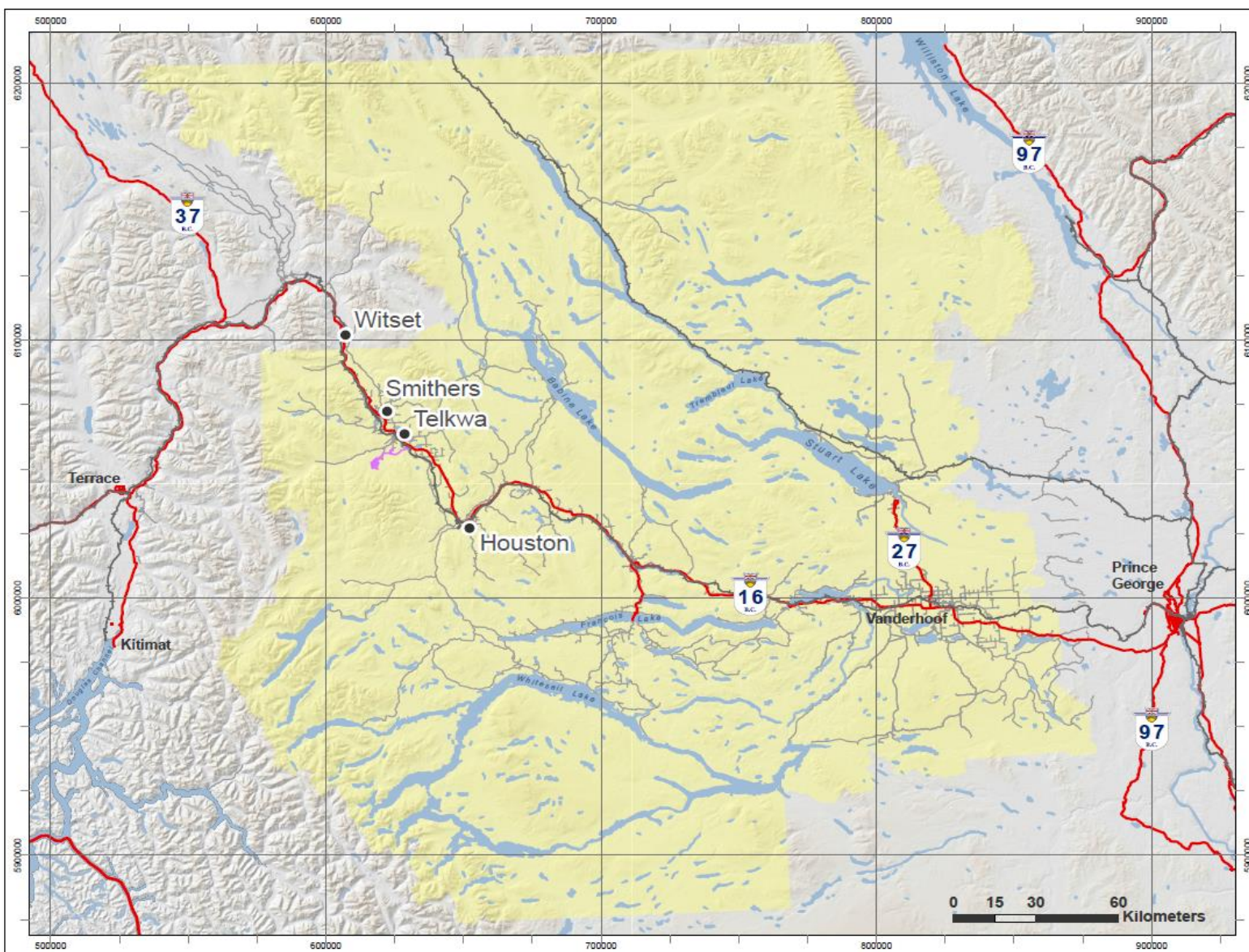
	Subcomponents	Indicators
Visual Resources (IC)	Visual Quality	Change in: <ul style="list-style-type: none"><li>Visual disturbance from selected receptor sites</li></ul>
	Ambient Light	Change in: <ul style="list-style-type: none"><li>Light trespass</li><li>Glare</li><li>Sky glow</li></ul>
Demographics (IC)	N/A	Change in <ul style="list-style-type: none"><li>Population</li><li>Demographic factors</li></ul>

Measurable variables



# Socio-Economic - Study Areas

Social



**TELKWA COAL**

LIMITED

*Tenas Project*

**Socio-Economic  
Study Areas**

-  Project Area
-  Socio-Economic RSA  
(Regional District of Bulkley-  
Nechako)
-  Socio-Economic LSA
-  Highway
-  Roads
-  Rail

## Interviews with:

- Telkwa, Smithers, Houston, RDBN, Northern Health
- Chambers of Commerce, colleges and schools
- RCMP, Community Services Association Friendship Centre

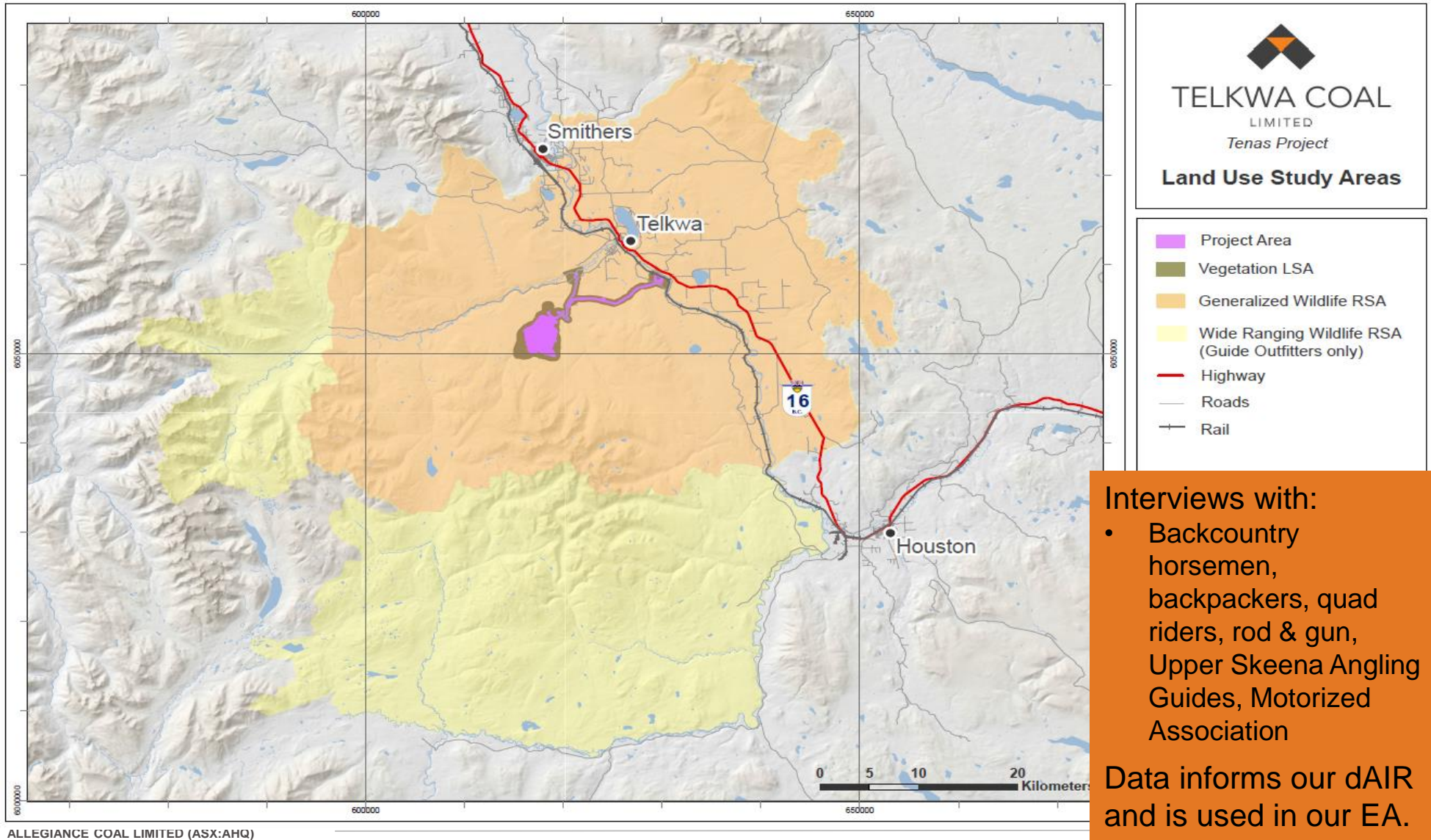
Data informs our dAIR  
and is used in our EA.





# Land Use – Study Areas

Social



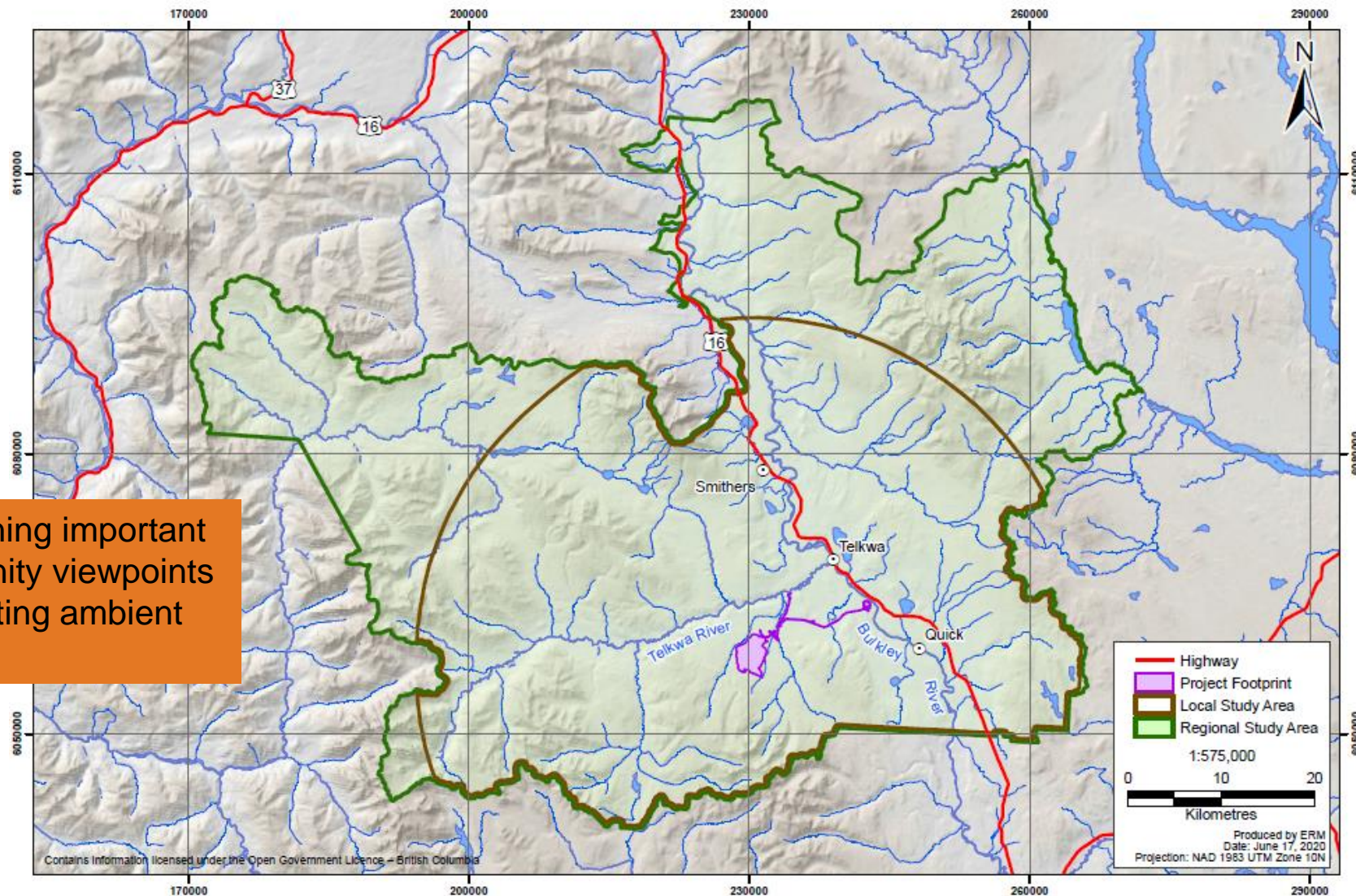




# Visual – Study Area

Social

Maintaining important community viewpoints and limiting ambient light

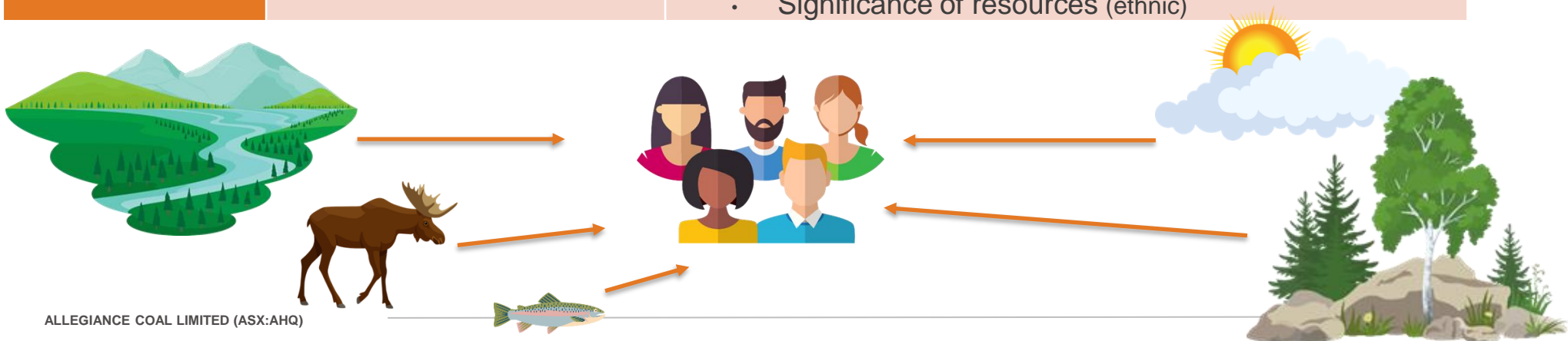






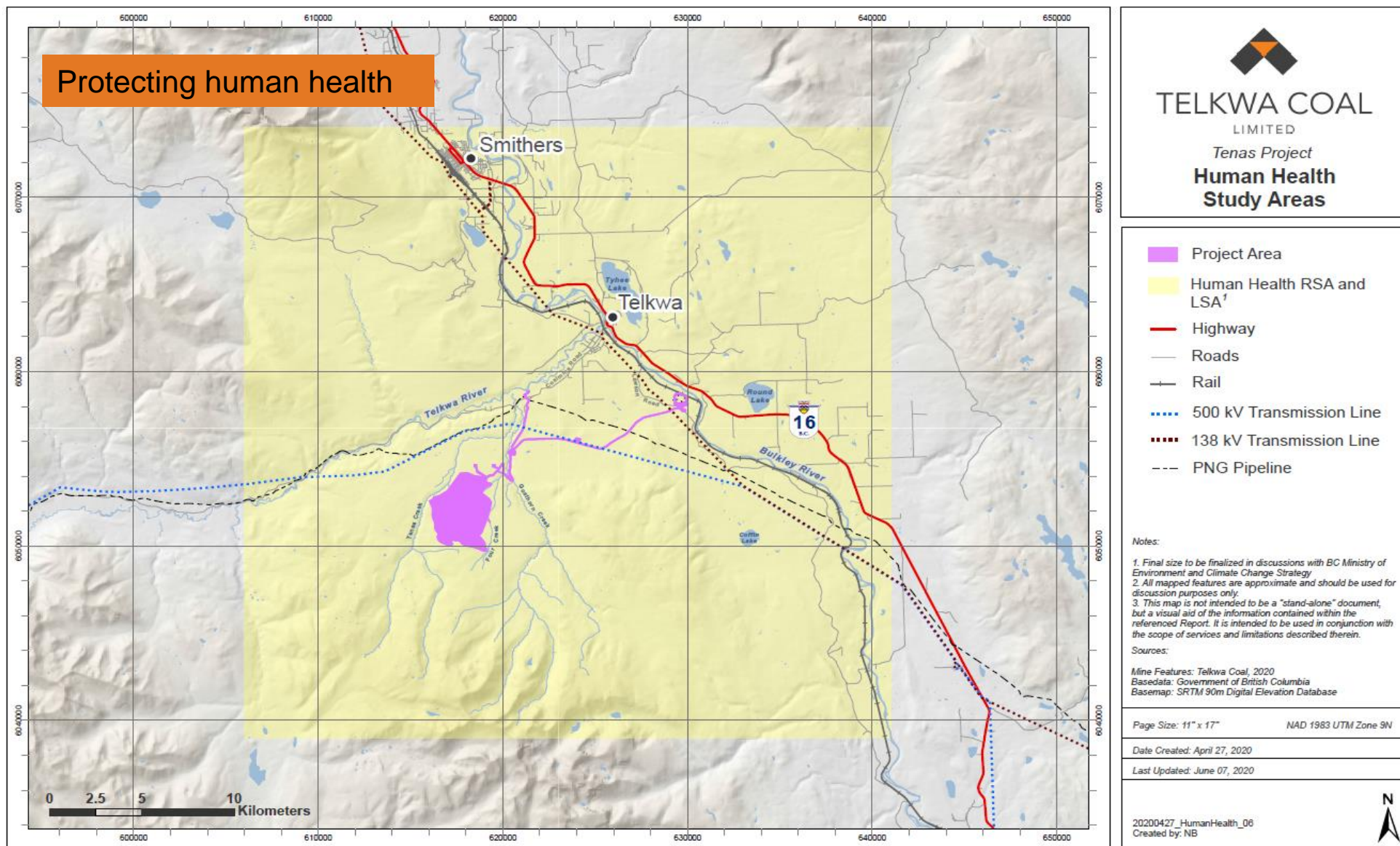
# Human Health (VC) / Heritage Resources (VC)

	Subcomponents	Indicators	Measurable variables
Human Health (VC)	N/A	Change in human health from biophysical determinants of health	
Heritage Resources (VC)	Archaeological Resources	Change in: <ul style="list-style-type: none"><li>• Presence</li><li>• Number</li><li>• Type</li><li>• Significance of resources (scientific, historic, economic)</li></ul>	
	Historic and Cultural Sites	Change in: <ul style="list-style-type: none"><li>• Presence</li><li>• Number</li><li>• Type</li><li>• Significance of resources (ethnic)</li></ul>	





# Human Health – Study Areas

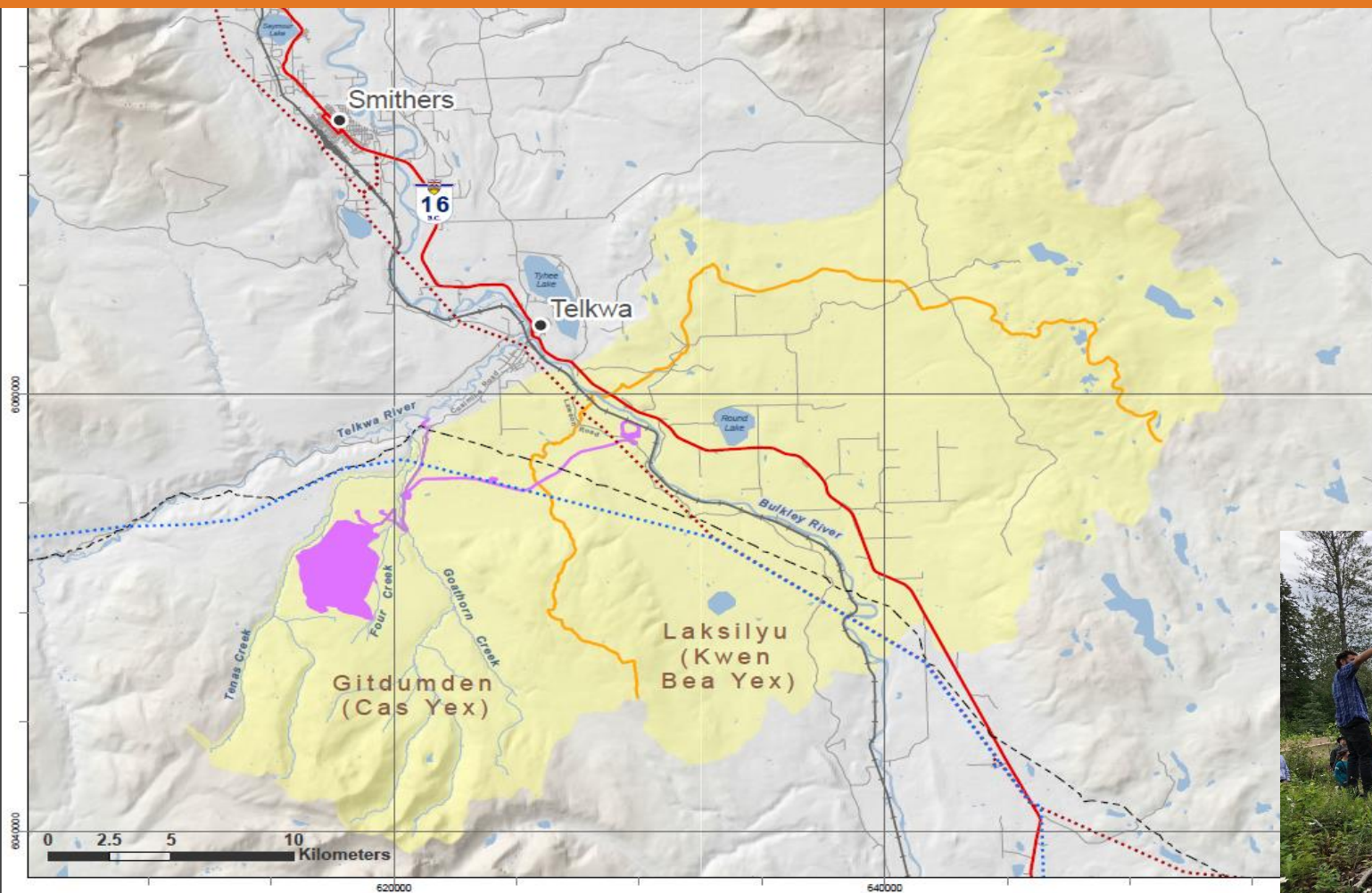














# Heritage Resources – Study Areas

We have investigated several locations for our rail loop. The spot we have chosen will avoid areas identified as having archaeology potential.



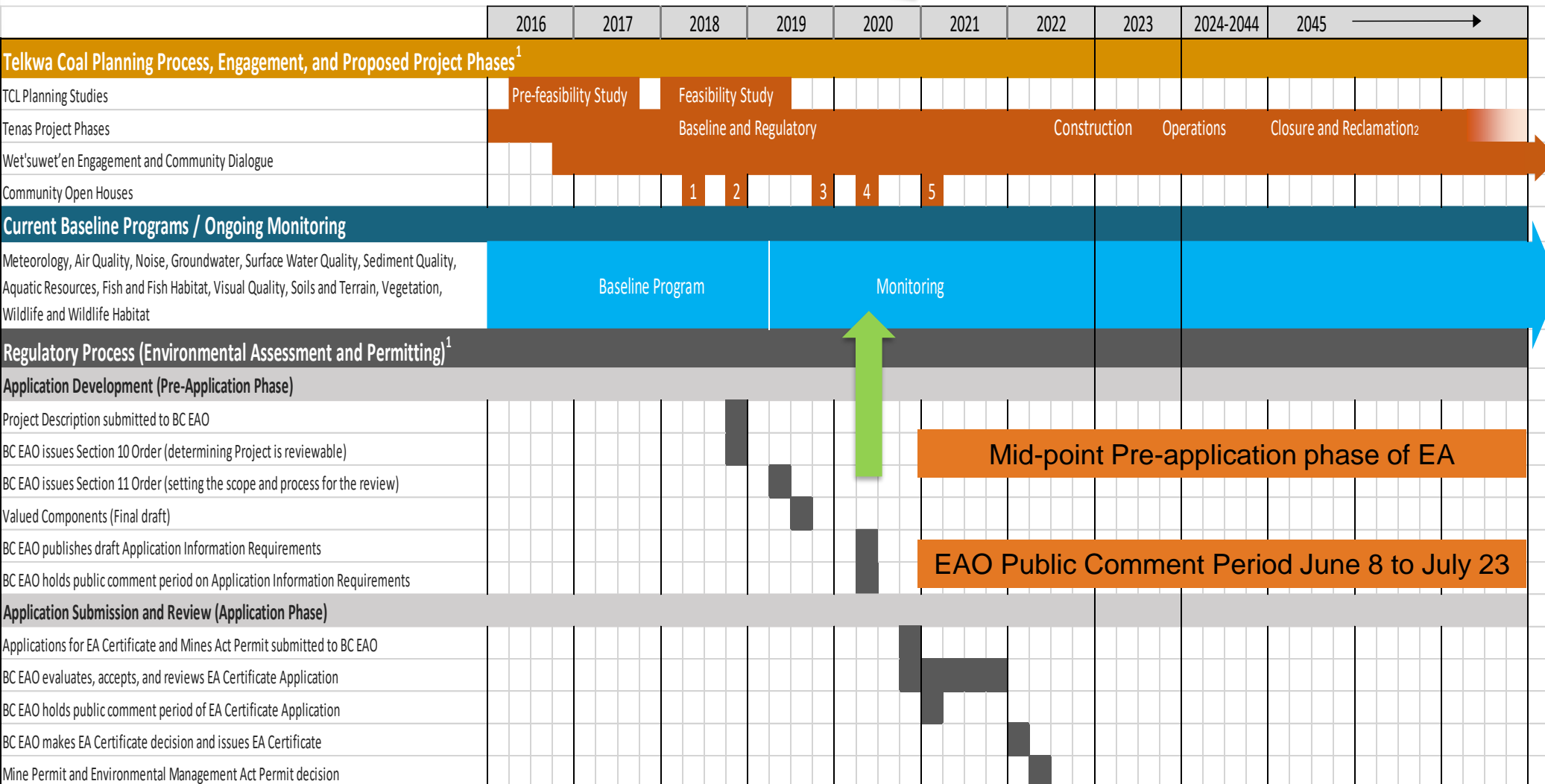
  
**TELKWA COAL**  
LIMITED  
*Tenas Project*  
**Cultural Study Areas**

-  Cultural LSA (Project Area)
-  Cultural RSA
-  Highway
-  Roads
-  Rail
-  500 kV Transmission Line
-  138 kV Transmission Line
-  PNG Pipeline



# Tenas Project - Schedule

We are here







For more information:

VC / IC / subcomponent  
postcards, brochures and  
infographics

Available at Telkwa Coal Office

1415 Suite D Hankin Ave

Telkwa BC, V0J 2X0

Or at [www.TelkwaCoal.com](http://www.TelkwaCoal.com)

These are the components we have been studying and will assess for our EA application.

ENVIRONMENT	COMPONENT	SUBCOMPONENTS	
	Fish and Fish Habitat		
	Aquatic Resources		
	Wildlife	Marten, Wolverine, Caribou, Grizzly Bear, Moose, Bats, Western Toad	
	Avian Species	Migratory Breeding Birds Listed Bird Species Raptors	
	Atmospheric Environment	Air Quality Greenhouse Gas (GHG) Emissions Noise	
	Vegetation	Old Growth Forest and Wetlands Listed Ecological Communities Culturally Important Species Rare Plants and Lichens	
	Terrain and Soils	Soil Quality Terrain Stability	
	Surface Water	Surface Water Quantity and Quality	
	Groundwater	Groundwater Quantity and Quality	
SOCIAL	Labour Market		
	Economic Development	Local Business and Industry	
	Infrastructure and Services	Housing and Accommodation Community Infrastructure and Services Transportation	
	Land and Resource Use	Commercial Land Use Public Recreation Use Current Use of Land and Resources for Traditional Purposes	
	Community Well-being		
	Demographics		
	Visual Resources	Visual Quality, Ambient Light	
	Heritage Resources	Archaeological Resources Historic and Cultural Sites	
	Human Health		



# Questions

Thank you.

*Tenas Project*  
*Draft Application Information Requirements*  
document available on EAO website

