

Tenas Project: Terrestrial, Social, and Health Sub-Working Group

Meeting Minutes

June 20, 2022, from 9:00am to 12:00pm

Meeting Participants:

Environmental Assessment Office

Heather Noble
Jillian Zavediuk
Matt Rodgers

Town of Smithers

Gladys Atrill

Village of Telkwa

Debbie Joujan

Energy, Mines and Low Carbon Innovation (EMLI)

Morgan Dyas

Witset First Nation

Dallas Nikal

Forests (FOR)

Chris Schell,
Jacques Marc
Cheryl MacKenzie,
Ron Donnelly

Office of the Wet'suwet'en (OW)

Mike Ridsdale

Agricultural and Food (AFF)

John Stevenson

Telkwa Coal Limited (TCL) and Consultants

Ashleigh Ballevona
Dan Farmer
Cathy MacKay (EDI)
Luke Powell (ERM)
Jenna Down (ERM)
Annette Muttray (ERM)
Andrew Matheson (ERM)

Environment and Climate Change Canada (ECCC)

Michael Ryanski
Kathryn Marshall

Northern Health (NH)

Paula Tait

Meeting Objectives:

- For Telkwa Coal Limited (TCL) to present an overview of the following chapters of the Application:
 - Terrain and Soils
 - Vegetation
 - Wildlife, including Caribou and Avian Species
 - Visual Resources
 - Community Well-Being
 - Demographics
 - Infrastructure and Services
 - Land and Resource Use
 - Human Health
- For Working Group members to ask questions regarding these chapters and the Application review process.

Meeting Notes:

1. Welcome and agenda overview (EAO)

2. Overview of effects and mitigation measures for terrestrial VC's including: Terrain and Soils; Vegetation; and Wildlife including Caribou and Avian Species.

TCL provide a slide presentation of the terrestrial valued components (VC's) and open the up for question and discussion.

Three subcomponents, migratory bird species, listed bird species and Raptors.

The indicators same as for wildlife are change in habitat, change in mortality and change in movement patterns and is right from the application and a summary of the residual effects characterization for each of the valued components.

For terrain and soils have summarize this in terms of the residual effects. Being changes to terrain from vegetation and rock removal and potential for loss of soils and changes to quality due to changes in physical and chemical properties. And then the proposed mitigation measures and address each of these residual effects. The subcomponent to which they apply to and then a summary of each of the characterization criteria. Which concluded in Nonsignificant effect with a high level of confidence.

Or the vegetation valued component we have residual effects of alteration and loss of vegetation, ecosystems and wetlands and trace metals deposition and have mitigation measures to address these effects. Have also identified the subcomponents to which these apply and have summarize the residual effects characterization which resulted in determination of non significance with a moderate level of confidence.

On wildlife, we have alteration and or loss of habitat, so this would be the direct and indirect and sensory disturbance aspects of altering habitat and have the following mitigation measures that in some way address this residual effect. The characterizations of the residual effects for each of the subcomponents the resulted in non-significant and a moderate too high level of confidence depending on the subcomponent.

Change in mortality was also applied to each of the subcomponents and the resulted in it nonsignificant. Assessments ranging from a moderate to a high level of confidence depending on subcomponent. And change in movement patterns. Identified as a residual effect for each of the subcomponent. With a non-significant characterization and a moderate to high confidence depending on subcomponent similarly for the avian species valued components and this is a very high level summary I'm providing here and for alteration and loss of habitat.

Will say this assessment and involved using habitat models for breeding migratory breeding birds and then what we did was place that 500-meter buffer as well around the mine site. The mine project area itself does not contribute to any new disturbance because. Everything in that zone was a impacted previously through the direct or the 500 meter buffer. It does not contribute anything into the core habitat, which is this. Purple line right here, which is the province of BC's core habitat delineation and because of the indirect effect of this 500-meter

buffer, there is a .005% increase in the indirect disturbance in the matrix habitat largest habitat area here, and what .01% increase? I think it was into the Environment Canada 2014 habitat area, so we assessed each of those three regional habitat areas.

Question and Answer and Discussion:

- **FOR:** disturbance of caribou habitat from land development and roads. In past meeting with TCL, FOR has raised noise disturbance from mines as a key concern - blasting, etc. This will be more than 500 meters of impacts. Typically, there's a sound impact study on ungulates - haven't seen this yet and am looking for some content here. Can you comment on this and summarize results?
- **TCL:** Sound modelling is included in the Application - can send more info on this. In general, avian specifically looked at where sound isopleths fell within 50 decibels (dBA) at night, 30 dBA during day - if this fell with local study area (LSA), then modelling accounted for that in terms of downgrading the habitat closest to the disturbance as a buffer. Solid answer for Avian species in terms of modelling.
- **FOR:** was blasting included in the analysis?
- **TCL:** yes, it was - had some data on blasting.
- **AFF:** livestock on range or farms are impacted by blasting as well. Any consideration given to how this might affect behaviour? Large pit blasts could be a concern - has any range value been assessed with regard to blasting? Noise from rail loadout facility - how will this affect surrounding farm operations? Can you point me to the analysis in the Application?
- **TCL:** same impacts to wildlife would apply to livestock - can provide a more detailed answer on this if needed.
 - **ACTION:** TCL to follow up with AFF on this.
- **FOR:** The figure showing dBAs doesn't account for blasting - even though it's short term, it can have an impact on wildlife. Need to include in analysis. From a wildlife standpoint FOR are concerned about local chronic effects but caribou are a species of particular concern - the wide ranging impacts on habitat is something I want to ensure has been properly considered here. Did noise modelling include landform and land feature effects? We've been involved in a number of mines where they've brought blasting experts in to understand effects. Suddenly cloud cover becomes important for reflecting sounds, etc. Appreciate there's a lot going on. General mine operations and short term blasting may impacts sensitive ungulate more than other species and may lead to range abandonment with impacts outside of the 500 m buffer (up to a couple of kms away) this might be something we want to talk about further.
- **TCL:** Yes, it did for those figures but for blasting they did a simple distance look. The actual graphs and contours accounts for land, trees, etc. But for blasting they just did a distance.
 - **ACTION:** FOR to put something together in the issues tracking table around noise impacts from blasting on ungulates (caribou in particular).
- **ECCC:** will there be a caribou sub-working group meeting in the future? ECCC will be providing comments on Friday and perhaps we can chat after that?
 - **EAO:** depends on comments and what is needed. We can arrange a caribou sub-working group meeting if needed.

- **AFF:** concerned about dust from rail load out facility - can we discuss? Any proposed monitoring at sites? Surface accumulation close to rail load out facility? Remember mention of one water table sampling location listed on agricultural property - would it be possible to have more than one?
 - **TCL:** We did similar modelling for dust as was done for noise. Dust is included in the Atmospheric VC - check out air quality management plan for mitigation. Section 4.1 is Atmospheric VC. Not sure about monitoring of dust - something that comes out during the EA. Know we have to monitor but not sure where and how much. Expect two locations - one near rail load out and one near mine site. We will have more than one water sampling location on agricultural properties - more will be added during the EA.
- **Smithers:** follow up to AFF's questions. How will actions coming out of this meeting be shared with the working group. Any sort of imagery summer vs. winter in terms of coal dust and what that might look like.
 - **TCL:** We don't have imagery per se that shows what dustfall will look like. We have isopleths that show measurement of dustfall impacts.
 - **EAO:** We will be posting working group meeting notes on EPIC that include any actions/follow up.

3. **Overview of effects and mitigation measures for socio-economic VCs, including: Visual Resources; Community Well-Being; Demographics; Infrastructure and Services; Land and Resource Use; and Human Health.**

TCL provided a presentation on Social and Human Health VCs.

Looking at valued component, subcomponents and indicators. We have all the valued components, so we've got visual and the subcomponent being visual quality. And what the indicators are community well being, there were no subcomponents. For Demographics looked at change in population, other demographic factors in infrastructure services.

Looked at housing and accommodation, community infrastructure and services, as well as transportation. Valued components continued. We assessed commercial land use as well as public recreation use and then with human health, there's no subcomponent identified for human health. The side provides an idea of what the indicators were that that we looked at in the EA

Visual resources, viewpoints and viewshed analysis. Figures from the EA that shows the visual resource viewpoints that were selected, had about 18 or 19 of them various locations. They were all obviously selected based on the viewshed analysis, meaning where the project was visible from.

Visual resources, so the residual effects after implementation of proposed mitigation measures, a reduction in visual quality during the active phase. So visual resources assessed the project phases separately, so active phases were considered to be construction operation, decommissioning and reclamation and then the post closure phase was assessed separately and then two areas of the project were also assessed separately. Looked at the mine site.

during active and post closure and then also looked at the rail infrastructure as it is quite a ways away from the mine site, they were assessed separately.

Mitigation measures there is one subcomponent for visual quality and then the residual effects characterization, concluded a not significant residual effect with the exception of the reduction in visual quality during the active phases at the mine site, and we had a high level of confidence in the characterization.

Socioeconomics study area for the socioeconomic component valued components was the same for economic development, labor market demographics, community well being.

The socioeconomic value component study area, the regional study area is the regional district with the inclusion of Witset and the regional study area and then the various communities closest to the project are what we called our local study area. They included what's that Smithers, Telkwa and Houston.

Community well being the residual effects were identified for change in food security as well as a change in cost of living. Various mitigation measures here that also refer to some of the management plans for more details and the effects characterization is all here and concluded that not significant effects with a low level of confidence. Additional residual effects related to community well being included, a changing community cohesion, as well as a change in mental health. Mitigation measures listed and the characterization in terms of their magnitude and geographic scope, et cetera, and they were determined to be not significant residual effects again with a lower level of confidence.

For demographics, there was one residual effect, which is a change in population and related demographic factors. So similarly, proposed mitigation measures as well as reference to the socioeconomic management plan, which has more detail residual effects characterization determined not significant effect and a high level of confidence. For infrastructure and services. The residual effects included an increase in cost or a decrease in the availability of housing and accommodations proposed mitigation measures, the residual effects included, increased demand for community infrastructure services, particularly the residual effect focused on an increase in demand for childcare.

Looked specifically at the increased demand for childcare and then changes in the use of road and related increases in traffic. Mitigation measures the subcomponents corresponding to these residual effects and then their characterization, all of them were determined to be not significant residual effects. A low to moderate level of confidence.

Land and resource use. There was actually just one local study area which is typical to most of the VC's and then, so which is the sort of like a buffer around the project area and then there were two regional study areas, the wide range studying area study area covers up wider range was used for just some of the subcomponents, particularly hunting guide outfitting. Took into account wider ranging species that those land and resource.

Land and resource use residual effects change in access and that change in sensory disturbance. Proposed mitigation measures as well as our reference to management plans. Public access management plan particularly for the change in access residual effects characterization's its a low likelihood in a not significant effect for both of these with a moderate level of confidence.

And there's also residual effects for a change in quantity or quality of resources and. The change in access change in sensory disturbance in the change in quality and quantity of resources related to the commercial land and resource use.

Subcomponent were determined to be not significant effects with a moderate level of confidence at moderate to high level of confidence, and then in terms of change in access for public recreation use, it was determined to be not significant with a moderate level of confidence and also related to public recreation use. The residual effects of a change in sensory disturbance and a change in quantity or quality of resources. Not significant residual effects with a moderate to high level of confidence.

Human health, local and regional study areas as shown in the environmental assessment report, are shown here. Air quality and noise. The study areas are actually based on the noise study areas and the air quality study areas. Residual effects related to human health changes in human health due to project related change in air quality from contaminant. Changes in human health due to project related changes in noncarcinogenic metal contaminants of potential concern (CPC).

Contaminants of potential concern concentrations in environmental media. Mitigation measures here that that address these residual effects, both these effects were determined to be not significant with a moderate to high level of confidence.

There were also residual effects for human health related to changes in human health due to project related. Carcinogenic metals, CPC other than air, so this is specific to the ingestion pathway, so we've got mitigation measures. Not significant residual effect in a moderate level of confidence. And then there's also change in human health due to an increase in ambient noise levels and some mitigation measures related to noise and blasting so determined to be not significant level of not significant residual effect with a high level of confidence.

Question and Answer and Discussion:

- **AFF:** Community well being and changes in food security. Medium magnitude and not significant with low level of confidence. Food security is of great importance - can you explain this characterization?
 - **TCL:** The residual effect, the magnitude for changing food security was moderate. The rationale for that moderate rating was that resource availability will change within the project footprint area, but that's relatively small in relation to the LSA and the RSA, both of which will remain viable and subsistence food quality is not expected to change with the implementation of the public access management plan. Then they'll also be a subsistence food management plan.
And you know, with the implementation of mitigation measures for soils, air, fish, wildlife and water quality, the subsistence food quality is not expected to change. So that's, that's how the rationale for the moderate magnitude for change in food security.
- **Smithers:** Can you explain residual effect? Is that during construction/operation or forever?
 - **TCL:** You look at effects from the project and apply mitigation measures - if there's still an effect, these are residual effects that are characterized and depending on characterization, you determine significance.

- **FOR:** On visual resources, I submitted many comments back in the application information requirements (AIR) stage and these weren't reflected in the Application. My assessment of the Application is that there are issues with analysis work that could affect outcomes. I don't disagree with active phase but how we get there with current criteria - I see some challenges. The consultant has used Hansell matrix, standard practice. Some of what's used in the matrix is used out of context and that will affect results - numbers used aren't appropriate. The photography used in the assessment is also quite poor - so pixelated it's hard to tell where the mine actually exists. Horizontal viewing area - in 1000 samples, 62% of vertical viewing angle is 7 degrees or less. When you have a rating system when a lot of landscape is less than 7 degrees, everything ends up in 1 category. This has happened 3 times in this Hansell matrix. Another issue is that all viewpoints are greater than 8 kms away. Some residences much closer by and need to be reflected. The public will want to see the impact of this development in a manner that they can understand. Poor photography makes this difficult. General comments - I'd like some feedback from consultants on this. At what point do we have discussion around criteria used for visual quality assessment and outcomes.
 - **EAO:** Comments on AIR were brought forward and FOR has re-submitted these comments as Rd 1 Application review comments to TCL. These were carried forward as they were more relevant to App review and not screening or AIR review. Process-wise, the EAO ensure issues are resolved through multiple rounds of working group comments. The EAO doesn't have technical expertise in these areas and we look to the working group to provide comments and TCL to respond. If we feel we need additional information from TCL, we can request this. At this stage, we're still working through issues resolution but if we determine that issues haven't been adequately resolved, we have the ability to ensure this happens. We need to note that issues have or have not been resolved at the end of Application Review. This includes characterization of effects that goes to decision makers. We try to resolve as many issues as possible.
 - **TCL:** haven't had a chance to review FOR's comments yet or provide a fulsome response.
 - **ACTION:** TCL to respond to FOR comments.
- **OW:** When we look at human health and socio-economic side of things, we need to remember the people we're doing this for and why. Need to think about the people living there, those that are on fixed incomes, those that are disabled, the elderly - these are the people we need to focus on and how this project might affect them. Influx of professionals coming in with major projects, need housing - people with fixed incomes are the hardest hit. Can't pay for increased rent or living allowances - food - necessities they require.

Closing and next steps:

- EAO will post recording to the SharePoint site and summary meeting notes will be posted publicly to EPIC. Another sub-working group on water and aquatics this Thursday.

Meeting ended at: 10:25am