

Beaver River Land Use Planning

Government of Yukon Priority Planning Issues and Interests

Introduction

In May 2017, the Yukon Environmental and Socio-economic Assessment Board (YESAB) issued an evaluation report recommending that the ATAC Resources Ltd. all-season access road project proceed subject to appropriate terms and conditions. The proposed 65-kilometre all-season road project would allow access to the proposed Rackla Gold Project, and includes upgrading existing trails, construction of a new road, three access control gates and numerous river crossings and culverts, including the potential use of fords.

To address the First Nation of Na-Cho Nyäk Dun's concerns with the project, the Government of Yukon and the First Nation of Na-Cho Nyäk Dun (FNNND) ("the parties") signed an agreement (dated February 21, 2018). The agreement outlines a collaborative process to complete a land use plan for the Beaver River watershed and to develop a road access management plan with ATAC Resources Ltd. The road access management plan is a term of the consolidated decision document signed by the parties March 2, 2018

Under the agreement, the Beaver River land use planning committee was established in June 2018 with two representatives from the FNNND and two representatives from the Government of Yukon. The planning committee will endeavor to complete the land use plan for the Beaver River watershed by March 31, 2020, and provide the land use plan and the road access management plan to the parties. The parties will then seek their respective governments' approval to jointly adopt the land use plan and the access management plan.

The purpose of this document is to outline the Government of Yukon's priority planning issues and to lay out respective interests that should be considered within the plan.

Priority planning issues:

The Government of Yukon recognizes that some of the issues and interests may conflict with each other and will require further analysis by the committee.

- The area has high potential for economically viable mineral resource extraction, which is an important economic driver for Yukon prosperity. The area is largely remote with intact terrestrial and aquatic ecosystems that are vulnerable to the cumulative effects that occur in areas open to development. The plan should recommend land use and access patterns that avoid negative

cumulative effects on wildlife populations, traditional use of the land, and businesses that rely on maintaining wilderness values.

- Moose and moose habitat conservation are important to traditional, economic, and ecosystem values within the Beaver River area. The plan should ensure that moose habitat is being conserved.
- The creation of the ATAC road will increase access into a largely inaccessible area, which could lead to spur roads and trails if limiting measures are not in place. The plan should include measures to ensure that access through resource roads is limited. This can be facilitated through the creation of the access management plan required under the FNNND and Yukon government agreement and the consolidated decision document.
- Effects of increased access and development on wildlife need to be assessed and managed by collecting adequate baseline data before new road construction, monitoring during and after construction, and adaptively responding to observed negative effects. These actions should be detailed in the wildlife monitoring and adaptive management plan required under the FNNND and YG agreement.

Issues and interests

Cultural resources and heritage sites

Background

Past land use by FNNND citizens, as well as more recent arrivals, have created heritage sites that preserve important evidence of people's connection and presence in this area. These sites can be considered historic or pre-contact in age and are protected by territorial and First Nation legislation. Heritage sites are vulnerable to disturbance and represent a non-renewable cultural resource. A small number of these sites have been documented but many more may be discovered.

Interests and Issues

- Development activities may cause negative impacts to heritage sites and tourism values, either directly (e.g., construction activity) or indirectly (e.g., increased access), as a result, recommendations should be made to limit developmental impacts on the following heritage sites and tourism values.
 - Historic sites and travel routes are culturally important to FNNND and can also support the region's tourism sector. These attractions are the basis for

- interpretation of the area's cultural and ecological history. These are important for all Yukoners, and First Nations.
- Special consideration may need to be made for river corridors and ridge lines where heritage resources tend to be higher.
 - Ensure view-scapes for tourism are maintained primarily around significant river corridors.
 - Communication between mining developers and the outfitting/tourism industry can foster a relationship that allows both industries to be successful in areas of overlap.

Economic development and road access:

Background

There is significant mineral potential in the Beaver River Land Use Planning area, with highly prospective geology that could bring long-term mineral exploration and economic development opportunities to Yukon. This development would provide employment opportunities for people in nearby communities and throughout the territory. Currently, the main economic opportunities in the area are mineral exploration, outfitting, trapping and limited wilderness guiding.

Currently the only vehicle access is through an existing winter-only access route along the Wind River Trail and its secondary trails. This is a public trail and its use is unregulated.

ATAC Resources Ltd. has been approved for an all-season access road to their Tiger deposit, which is located in a highly prospective mineral belt in the Beaver River watershed. In addition to the ATAC Resources property, there are 14 other operators working in the area. There are five deposits with reserves and a number of other projects that are yielding promising results. Exploration expenditures in the Beaver River Watershed alone were \$18,106,660 in 2018.

Interests and issues

- Both renewable and non-renewable resources should be considered in the plan
 - The plan should consider maximizing the land base available for exploration and potential mine development in areas of current activity and/or high potential (Figure 1).
- The economic viability of mineral projects hinges on suitable access, which need not be extensive. Too many access roads may fragment the landscape.

- To limit this fragmentation, new users in an area should use existing roads, rather than building new ones.
- In areas of conflict between moose and other important wildlife habitat and development, cumulative effects thresholds should be considered to accommodate both values. Options for thresholds include:
 - Cumulative disturbance thresholds linked to a pre-determined level of development (still to be quantified); and,
 - Cumulative effects environmental indicators and thresholds through determining changes in intact habitats.
- The Yukon Reclamation and Closure Policy requires that advanced exploration activities and mines provide reclamation and closure plans and post security before the project is allowed to proceed:
 - Conditions can be included in these plans to insure that closure plans consider and promote moose and other wildlife habitat.
 - The Government of Yukon will abide by the reclamation and closure policy.
 - Advanced exploration programs also have reclamation requirements and may be required to post additional security depending on the activities in the program.
- A road access management plan is a deliverable of the agreement and a requirement of the YESSAB consolidated decision document. It has to be developed before the plan is finished to insure compatibility as per section three of the agreement.

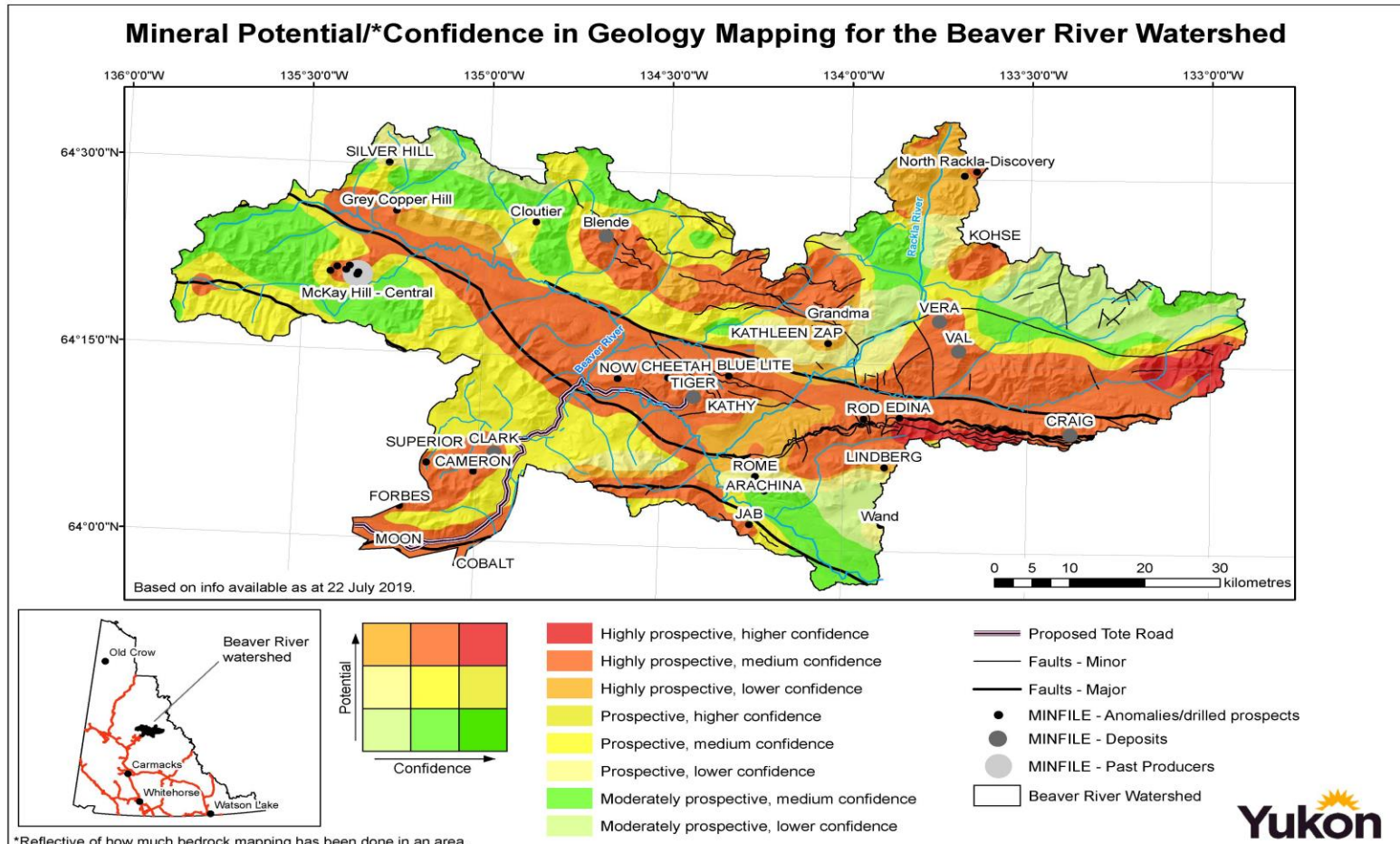


Figure 1: Mineral potential/confidence in geology mapping for the Beaver River watershed.

Fish, wildlife and habitat

Background

The Beaver River land use planning area is a large wilderness area that supports an abundance of biodiversity. There are important fish and wildlife values in the area, especially moose (see Figure 2), sheep (Figure 3), bears, char, salmon and wetlands. Having intact terrestrial and aquatic habitats is important to support wildlife populations. The species that rely on intact ecosystems are often also vital to traditional ways of life. The outfitting and wilderness guiding businesses depend on healthy wildlife populations in natural environments. There are several research projects currently underway to increase our knowledge of this area.

Interests and issues

- Road development will increase the amount of human and industrial activity. The cumulative effects of multiple projects likely attracted by the proposed access road are difficult to predict and will be more extensive in scope than those from the ATAC Road project only. Increased human activity can adversely affect some wildlife populations through hunting and other disturbances. Avoid key wildlife habitats.
- Manage access to mitigate impacts to fish and wildlife populations.
- Limit disturbances, such as noise from helicopters, at key times for sensitive species.
- Collect adequate baseline data before new road development, monitor responses of key wildlife populations and habitats after development and adaptively modify land uses to respond to negative cumulative effects.
- Increased human activity may result in increased human-wildlife conflicts.
 - New developments should minimize the potential for creating human-wildlife conflicts, especially with grizzly bears by measures such as avoidance of key habitats, strict management of attractants, and training of crews.
- An attractant management plan may be required by the development regulator to help mitigate any potential human-wildlife conflicts. If the project advances to a mine, there will be a requirement to submit and adhere to a wildlife protection plan. Current research indicates that some wildlife species that occur in the planning area are showing signs of decline.
 - Consider this decline when considering cumulative effects and triggers for plan reviews.

- Climate change may significantly alter the landscape leading to changes in habitat quality. The impacts of climate change are not well known, but may affect fish and wildlife populations in the area.
 - Include of focal species and their habitat (i.e., grizzly bears, caribou).
 - Design an area using ecological boundaries and of an appropriate size.
 - Retain functional connectivity to other nearby protected and conserved areas.
 - Consider protected areas distributed across the landscape.

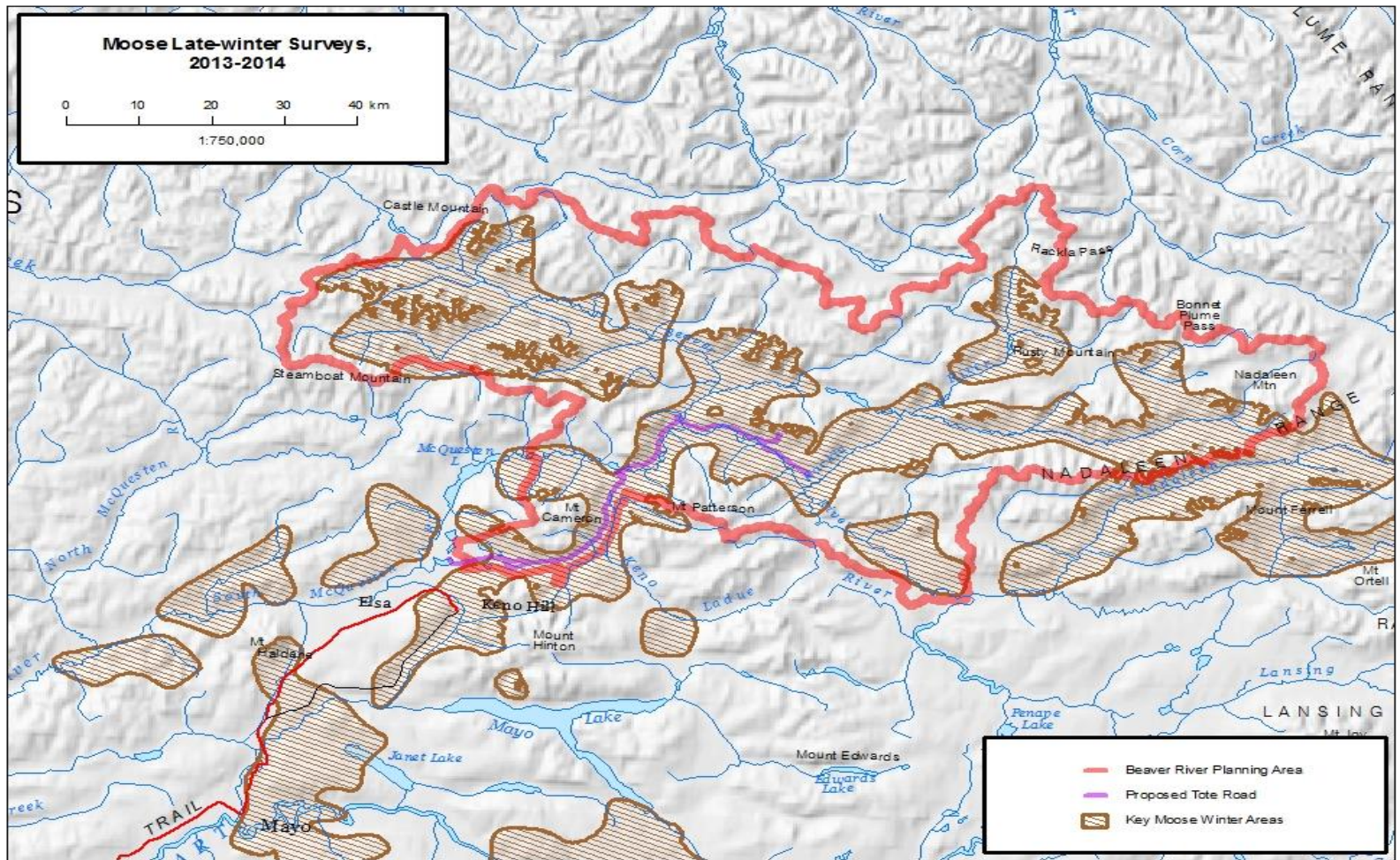


Figure 2: Moose key areas in the Beaver River planning area (late winter survey 2013-2014)

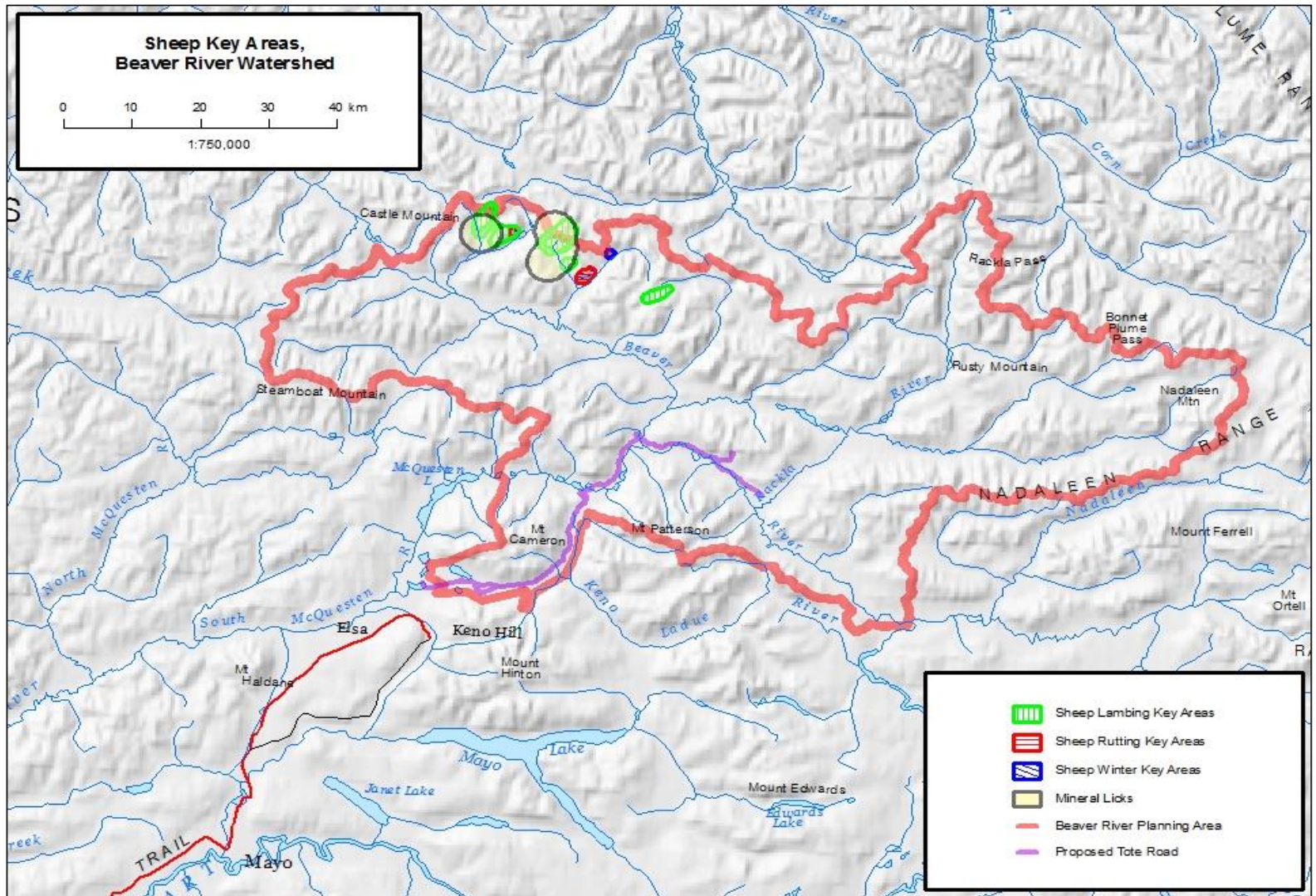


Figure 3: sheep key areas in the Beaver River planning area

Protected and conserved areas

Background

There are currently no designated protected or conserved areas within the Beaver River land use planning area. Ecoregion representation is mandated by the *Parks and Land Certainty Act* (PLCA). Section 1(b) of the PLCA states that “the purpose of this Act is to establish parks”, in part “to provide for the protection and management of representative areas”. The PLCA Preamble articulates the goal “to protect one representative core area within each of the twenty ecoregions that are located primarily within the Yukon.”

Canada has just amended all ecoregions throughout the country based upon new data. Yukon is part of this national process and has approved a new ecoregion profile for the territory, which was completed in 2014. This amendment resulted in boundary changes of ecoregions and new ecoregions being identified within the territory. Of particular importance is the fact that the new ecoregion profile has a major amendment to ecoregion boundaries within the Beaver River planning area, including the creation of a new ecoregion. The southern and northern boundaries of ecoregions 170 (Mackenzie Mountains) and 176 (Yukon Plateau-North) respectively have been amended and the new ecoregion, 302 (McQuesten Highlands) has been created between 170 and 176.

Issues and interests

- Ecological representation is an essential approach to ensure that protected areas networks succeed in protecting biodiversity.
 - It should be ensured that the correct ecoregion shapefile is being used for planning purposes ('Ecoregions 2014 – 1M').
- It is important to consider the creation of protected areas within the Beaver River planning area.
 - The planning area encompasses 15 per cent of ecoregion 302. Just over 50 per cent of this ecoregion is within the Northern Tutchone Regional Planning Area (NTRPA) with the remainder being within the Dawson Regional Planning Area.
 - The vast majority of the Beaver River planning area is within the new ecoregion 302 (McQuesten Highlands), with the remainder being in ecoregion 170 (Mackenzie Mountains).

- A portion of Ecoregion 302 (3.24 per cent) is protected within the southern extent of Tombstone Territorial Park, however this is not enough area to achieve ecological representation of the ecoregion. No single area would adequately capture all of the biodiversity representative of the whole planning region nor the other elements of importance. The ecoregion is over 400 kilometres from west to east with Tombstone and the Beaver River areas being in the western and eastern extents of the ecoregion respectively.
- The northern portion of the planning area is within ecoregion 170. This ecoregion is adequately represented within the special management areas of the Peel watershed regional land use plan.

Water resources

Background

The Beaver River originates in the Wernecke Mountains and flows into the larger Stewart River watershed. The area is defined by many small lakes and wetlands.

Issues and interests

- The data on water flow and water quality in the area is very sparse and site-specific. Currently, there is one active hydrometric station on the river, which measures streamflow discharge and surface water level, as well as a snowpack monitoring station at Rackla Lake.
 - Expand monitoring, in order to increase the amount of water quantity and water quality baseline data collected.
- Potential industrial demand for water may alter the water quantity.
 - A hydrological model was developed for the Stewart River at Mayo. As the Beaver River flows into the Stewart River, the Beaver River was included in this model. Consideration should be given to extracting this information from the larger model.
- Climate change may significantly alter hydrological processes and lead to changes in snow accumulation, water levels and flow.
 - Consider analysis of data to assess climate change indicators in the watershed, such as permafrost, snow-pack, river ice, freeze-up and thaw cycles.
- New development may affect the integrity and connectivity of the watersheds, river corridors, wetlands and may affect overall water quality.
 - Maintain the ecological integrity and connectivity of watersheds, river corridors and wetlands.