

## Appendix “A” – YG Submission

**DAWSON PLANNING REGION**

**TECHNICAL REPORT**

**ON**

**ISSUES AND INTERESTS**

**GOVERNMENT OF YUKON  
AUGUST 2011**

*Compiled by the Corporate Policy and Planning Branch of the Department of Energy, Mines and Resources*

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**DAWSON PLANNING REGION**  
**DRAFT TECHNICAL REPORT ON ISSUES AND INTERESTS**  
**GOVERNMENT OF YUKON**

## **INTRODUCTION**

Under the information gathering phase of its planning process, the Dawson Regional Planning Commission (DRPC) has asked the Yukon government to identify interests and issues in the Dawson region. The following is a compilation of issues and interests and for the DRPC to consider in developing a land use plan for the Dawson Region.

The identified issues and interests are provided by Yukon government departments with diverse mandates and perspectives, and who are responsible for land and resource management. The issues and interests listed are technical in nature, not necessarily exhaustive or reflective of Yukon government priority and policy. Regional planning will be beneficial in minimizing conflict between competing land uses and supporting sustainable development of the region's renewable and non-renewable resources in a way that considers and protects the integrity of the region's ecosystems, including cumulative effects.

The government looks forward to learning what other issues and interests will be identified by the DRPC and the public during this phase of the planning process.

## **DEPARMENTAL REPORTS ON INTEREST AND ISSUES**

### **AGRICULTURE**

#### **Interests**

The Dawson Planning Region contains some of the (potentially) most productive agriculture land in the Yukon. High quality agriculture soils are associated with the flood plains and lower terraces of major rivers all across the Yukon. In this region there are extensive suitable agriculture areas along the Yukon (both upstream and downstream of Dawson) and the lower Stewart River as well as along the Indian and, to a lesser extent, the Klondike River. Almost all areas of suitable agriculture land that are easily accessible are in Sunnydale/ West Dawson and are subject to the West Dawson Sunnydale Local Area Plan.

First Nation Settlement Lands along the lower Stewart and Yukon River contain many areas of land suitable for agriculture.

The superiority of the Dawson region for agriculture is based on the continental climate. Cool short summers are the greatest limitation on Yukon agriculture production and the growing season in the Dawson Planning Region is considerably warmer. Also rainfall is more predictable in spring. Cereals are capable of maturing in most growing seasons in the Dawson Planning Region. Reconnaissance scale soil mapping (1977, 1: 125,000) by the University of Saskatchewan (Rostad et al) estimates about 25,000ha of Class 3 and 4 lands in the Dawson/Mayo region. In contrast, Whitehorse Region was estimated to have no Class 3 and 4 lands.

The Yukon Agriculture Branch expects continued interest in acquisition of agriculture land in the Dawson Region at a low but steadily increasing level over the next ten years. The great majority of Yukon agriculture is currently situated within 80 km of Whitehorse and, with the current emphasis on

livestock production, the central Yukon is the natural place to look to for a Yukon grown livestock ration (consisting of grains).

### Issues

1. The best agriculture land is accessible mainly by boat on major rivers.
2. The thaw of discontinuous permafrost (common in the Dawson Region) creates uncertainties related to developmental timelines. Removal of vegetation precipitates melting of ground ice and, depending on depth of frost and soil texture, it is difficult to predict when cleared land will be dry enough to farm.
3. Placer mining is extensive in the Dawson Region. Because placer mining claims grant both surface and subsurface rights, the availability of land for other land uses is difficult in the Dawson region. At the same time placer mining presents a unique opportunity for agriculture development. At the closure and restoration end of the placer cycle, provided that fine texture materials and organics are preserved for redistribution over the gravels, revegetation may provide a transition to agriculture uses.
4. Tr'ondëk Hwëch'in has recently expressed some interest in using reclaimed placer land for agriculture, but were not in agreement with the lands being sold to the placer miner.
5. Dawson Region is the northern extent of the Central Yukon climate zone and the logical progression (with Whitehorse as the primary market) is to see agriculture lands developed in the South Central Yukon first.

### Tools & Information Products

- <http://www.emr.gov.yk.ca/agriculture/index.html>

## CLIMATE CHANGE

### Interests

- Average annual temperatures are increasing in the region. It is expected that temperature increases will be greater in Arctic and sub-Arctic regions than in southerly parts of Canada.
- As reported in the "Dawson Climate Change Adaptation Plan" (2005), a relatively uniform increase in annual average temperature of 2.5 degrees Celsius to 3.5 degrees Celsius is projected by the middle of this century. Annual average precipitation amounts are expected to increase by 10 to 40 %. More precipitation is expected during the winter months than in the summer.
- A changing climate can affect many of the interests and activities in the Dawson planning region. It is therefore important that consideration be given to both challenges and potential opportunities associated with climate change during the planning process.
- There is a need to enhance understanding and awareness of climate change in the Dawson planning region and to encourage development and implementation of adaptation strategies to mitigate the negative aspects of climate change and in order to take advantage of the opportunities associated with a changing climate.
- Increased monitoring and expanded research on the effects of climate change in the planning region, including but not limited to changes in ground temperature, streamflow and water quality, are needed.

## Issues

Known potential effects of climate change within the Dawson planning region include:

- habitat and vegetation changes;
- wildlife migration pattern changes;
- snow depth changes;
- weather pattern changes;
- water volume and quality changes;
- damage to infrastructure and increases in construction costs;
- engineering challenges;
- shifts in operational costs for activities; and
- changes in accessibility on the land and rivers.

## Tools and Information Products

- The “[Yukon Government Climate Change Action Plan](http://www.env.gov.yk.ca/monitoringenvironment/ccactionplan.php)” dated February 2009, is available at <http://www.env.gov.yk.ca/monitoringenvironment/ccactionplan.php>.
- The “[Yukon State of the Environment Report 2008](http://www.env.gov.yk.ca/monitoringenvironment/documents/state_of_env_report2008.pdf)”, dated March 2011, is available at [http://www.env.gov.yk.ca/monitoringenvironment/documents/state\\_of\\_env\\_report2008.pdf](http://www.env.gov.yk.ca/monitoringenvironment/documents/state_of_env_report2008.pdf).
- The “[Dawson Climate Change Adaptation Plan](http://www.taiga.net/nce/adaptation/Dawson_Plan_Final.pdf)” dated December 2009, is available at [http://www.taiga.net/nce/adaptation/Dawson\\_Plan\\_Final.pdf](http://www.taiga.net/nce/adaptation/Dawson_Plan_Final.pdf).

## CULTURE/HERITAGE

### HERITAGE RESOURCES & HISTORIC SITES

#### Interests

- The Dawson Planning Region is one of the earliest regions to be settled in Yukon and is where the Klondike Gold Rush occurred in 1898, when thousands of people inundated the region looking for gold. This activity left an imprint on the landscape, and the region is recognized as having the highest concentration of historic resources within the territory.
- As of June 17, 2011, there are 1245 records of historic resources in the Dawson Planning Region. Over 700 of these are located outside of the Dawson municipal boundary. The majority of the sites outside of Dawson date from the early 1900s to the late 1950s and most are related to mining.
- Like archaeological sites, historic resources are protected under Yukon’s *Historic Resources Act* (R.S.Y. 2002, c. 109).
- The Dawson area has been listed on the tentative list for World Heritage Site designation demonstrating its historic and cultural significance. If designated a World Heritage Site, there would be no impact to the rights of the Tr’ondëk Hwëch’in or to mining activities in the Klondike Goldfields, however, the area in and around the municipality may be managed according to suggested guidelines in the Dawson Heritage Management Plan in order to preserve historic resources and heritage character.
- There are several significant historic sites in the area including:
  - Dawson City; the Forty Mile, Fort Cudahy, Fort Constantine Historic Site; and Tro’Chek National Historic Site;

- The Yukon Ditch system, related infrastructure, large artifacts used to construct and maintain the ditch; the North Fork Ditch, South Fork Ditch, related infrastructure and large artifacts used to construct and maintain the ditches;
- The Whitehorse-Dawson Overland Trail and the remains of associated roadhouse sites; the Ridge Road Heritage Hiking Trail; and remains of the Glacier Creek Trail and associated roadhouses/cabins and informal communities in the Sixty Mile area;
- Remains of industrial sites such as the Adams Dam on Bonanza Creek and the French Gulch Dam on Eldorado Creek; and the Klondike Mines Railway that connected Dawson City to Sulphur Springs near the head of Sulphur Creek; and
- Areas along the Yukon River and the early settlement of Ogilvie located on Ogilvie Island are likely to contain historic resources related to transportation, trapping or farming. (Note the Yukon River has not been inventoried and the likelihood of well-preserved historic resources is high.)

## Issues

- The Ridge Road Heritage Hiking Trail is developed for cyclist and pedestrian use and is a fragile trail system. It is necessary to restrict access to motorized vehicles due to trail maintenance reasons and public safety for trail users. The area has mineral claims and consideration will be required to ensure the existing land use is not negatively impacted.
- The Yukon Ditch System is a system of pipe, flume and ditch that carried water from Tombstone Mts. to Bonanza Creek with maintenance camps approximately every 20km. The sections west of the Klondike River have been staked with quartz claims. It will be necessary to limit access roads across the ditch and to minimize mining impacts on the historic resources. Potential for hiking trails and interpretation of this monumental project is high as it is likely one of a kind in Canada.
- The Yukon Historic Sites Inventory has limited information on areas south of Blackhills Creek, the Sixtymile drainage, Yukon River, and the Coffee Creek drainage. There is no current information on sites located along Hunker, Dominion, Bonanza, Eldorado, Quartz, Sulphur, and the Indian River. The last inventory project occurred in the early 1990s.
- The need to assess potential impacts on historic resources has grown as the exploration and development of placer and quartz mines increases.

## Tools and Information Products

- Yukon Historic Sites Inventory, Yukon Heritage Reserves Inventory and Yukon Aircrash Inventory.
- Research reports on the Whitehorse-Dawson Overland Trail, the Klondike Mines Railway, the Yukon Ditch, and the North Fork Ditch system.
- Dawson Heritage Management Plan.
- <http://www.tc.gov.yk.ca/programs/index.html>

## ARCHAEOLOGY

### Interests

- Archaeological sites and resources are protected and managed in Yukon according to the *Historic Resources Act (R.S.Y. 2002, c. 109)* and the *Archaeological Sites Regulation (O.I.C.*

2003/73). The *Quartz and Placer Mining Land Use Regulations* also address protection/avoidance of heritage sites (including burials) and require that miners who encounter heritage sites report their discovery to the Yukon government.

- As of June 2011, there are 257 recorded archaeological sites in the planning region. These are predominantly prehistoric archaeological sites, which span the period from the end of the last Ice Age (12,000 years ago) to historic times in the Yukon, such as the Gold Rush at the turn of the century and the building of the Alaska Highway in 1942-43. Included in this number are several significant sites relating to the Klondike Gold Rush period, including Forty Mile/Chëdä Dëk and the National Historic Site Tro'chëk/Klondike City, which preserve the material record of this dynamic period of culture contact and change in Yukon history.
- Although inventories are incomplete for large portions of the planning area, archaeological site concentrations identified in and around Tombstone Park appear to represent areas of importance for seasonal harvesting of migrating caribou over several millennia. Upper drainages of the Tatonduk, Miner, Whitestone, Eagle, Fifteenmile and Chandinidu Rivers are expected to have similar high concentrations of prehistoric site values.
- The ancient terraces along the Yukon River in the Dawson Planning Region have been identified as potentially preserving some of the earliest evidence of human populations in the unglaciated Beringian landscapes of the late Ice Age. The site of Moosehide has yielded evidence of occupations dating back to about 8,000 radiocarbon years (ca. 9,000 calendar years). The Yukon River was also the location of historically important salmon fish camps for Han people which reflect subsistence adaptations developed within the past 2,000 years.
- Due to intensive mining in the Klondike goldfields over more than a century, the prehistoric archaeological record of this area is largely unknown. The narrow valleys and steep rolling hills typical of this area may not have been ideal for hunters throughout much of the Holocene. One site in the Klondike Gold Fields, however, yielded an antler billet dated to about 11,500 radiocarbon years in age (ca. 13,000 calendar years), suggesting additional evidence of late ice age human presence may yet be found preserved in the frozen mucks, much like the fossil palaeontological evidence.

## Issues

- Yukon government has limited archaeological site inventory information for large portions of the Dawson planning region.
- The need to assess potential impacts on archaeological resources has grown with increasing mining and exploration activity in the region. Heritage resources are identified as one of the major areas of concern in the majority of project reviews under YESAA.

## Tools & Information Products

- Yukon Archaeological Site Inventory (<http://www.tc.gov.yk.ca/archaeology.html>)
- Best Management Practices for Heritage Resources have been developed for both Placer Mining and Mineral Exploration industries addressing archaeological, palaeontological and historic resources; the Handbook for the Identification of Heritage Sites and Features is also available to assist field personnel to recognize and protect heritage resources. (Available in print and on line at <http://www.tc.gov.yk.ca/1589.html>.)

## PALAEONTOLOGY

### Interests

- As of June 2011, there are 139 recorded palaeontological sites in the planning region. These are predominantly Ice Age fossil sites in the Klondike Goldfields and include the areas of the lower Stewart River, Thistle Creek, Black Hills Creek, Henderson Creek, Fifteenmile Creek,

and Sixtymile River watersheds. There are over 15,000 fossils from the region accessioned into the fossil collections of Yukon government and the Canadian Museum of Nature.

- Fossils are protected and managed in Yukon according to the *Historic Resources Act (1996)*. Management activities include periodic site visits and monitoring by Yukon government paleontology staff at active placer mines to collect fossil resources uncovered by mining activity. The *Placer Mining Land Use Regulations* require that miners who recover fossils report their discovery to the Yukon government.
- Permafrost found throughout the region enables exceptional preservation of ancient Ice Age biological remains, such as proteins and DNA in prehistoric bone, mummified animal soft tissue, plants, soils, bacteria, and is the focus of active scientific research programs.
- The region attracts internationally renowned scientific researchers annually to study Ice Age fossil localities.
- Virtually every drainage area that has been mined historically, or is currently being mined for placer gold, has yielded Ice Age fossil bones.
- Additional pre-Ice Age fossil sites are expected to be discovered in bedrock outcrops north of the Tintina Trench in the Ogilvie Mountains (Tatonduk River, Monster River, Ogilvie River), in the northern part of the planning region.

### Issues

- Lack of palaeontological regulations under the *Historic Resources Act* to enforce industry compliance.
- Yukon government has limited palaeontological resource inventory information for much of the region outside of the historical footprint of the Klondike Gold Fields.
- There is a need to assess potential impacts on fossil resources by industry in light of increasing gold mining and other industry activity in the region.
- There is a substantial unregulated commercial trade in fossils from the Klondike region.

### Tools & Information Products

- Yukon Palaeontology Program fossil database (<http://www.tc.gov.yk.ca/palaeontology.html>).
- Canadian Museum of Nature fossil database.
- Numerous scientific journal manuscripts and books.

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## ECONOMIC DEVELOPMENT

### Interests

- The Dawson region has long been established as an area with a rich mining history. It is this history that has contributed to Dawson City being world-renowned as a destination for tourists who want to experience the feeling of an historic mining community. The successful co-existence of tourism and mining activities within the Dawson region continues to provide numerous employment opportunities in the region and economic benefits to the local business community.
- Regional land use planning needs to be linked to and cognizant of regional economic development planning for the Tr'ondëk Hwëch'in Traditional Territory in order to maximize conformity between the plans.
- Interest in future mineral development is high as the Dawson region is experiencing historically high levels of mineral staking and exploration spending. There is strong interest in the White Gold area in the Dawson region, an area which has a great deal of potential in terms of resource value but requires significant delineation to better understand the resources in the area. The Casino property is located primarily outside of the planning

region, at the southeast boundary of the region. If developed, Casino could provide substantial benefits to the territory as it is much larger than projects currently operating in the territory. Current estimates have the cost of development as high as \$1 billion, and the project could see production activity for over 30 years. Continued exploration activities and development of mineral production throughout the region has the potential to have a variety of benefits, including:

- Direct employment
- Indirect employment
- Taxation benefits
- Royalties
- A number of mining properties in the region have the potential to go to production in the short-to-medium term and could provide long-term economic impacts to the Dawson region and Yukon. Development of mining properties will require supporting infrastructure, in particular access and energy. Ongoing mineral exploration and future mineral development in the region is dependent on short-term exploration access and long-term access and infrastructure corridors to potential development projects.
- The planning region has a well-established, active tourism sector that provides economic benefits to the region and Territory.
- The regional land use plan and process needs to find a workable balance between environmental protection and economic development. Development opportunity in the Dawson region has the potential to be an important contributor to Yukon's overall economic health and growth in the foreseeable future, especially as it pertains to the development of mineral resources. The regional land use plan should consider future needs of the business community and industry and how to address those needs while limiting potential conflict among resource users.
- Support for First Nation opportunities for benefits of resource development. It is important to identify economic opportunities for First Nations that could arise from development in the region including:
  - Direct employment opportunities;
  - Indirect employment opportunities (i.e. service sector jobs);
  - Establishment of businesses to service resource development;
  - Royalties on Category A Settlement Land;
  - Mining reclamation opportunities; and
  - Development of energy resources on First Nation Settlement Land.

## Issues

- Economic development in the Dawson region could be constrained by inadequate supply of affordable clean energy and also the need to improve the existing transportation infrastructure or develop new transportation infrastructure.
- Economic diversity can contribute to the long-term health of the region. As the mining sector can be cyclical it is important to examine all potential resource uses in the area, as some may be found to be more resilient to "boom and bust" scenarios. Alternative economic resource uses include activities related to tourism, forest products, agriculture, and oil and gas development.
- As tourism related activities provide significant economic contributions to the Dawson region, including employment for many residents, the regional land use plan should ensure that the tourism and mining sectors can continue to co-exist and provide economic benefits to the Dawson region.
- It is difficult to establish an accurate economic baseline for the Dawson region as the appropriate data at a regional or community level currently does not exist. Without the ability

to develop baseline data, it will be difficult to quantify the economic impacts associated with the development of the Dawson Regional Land Use Plan. This is an issue that is not isolated to a review of the Dawson region, and in the absence of new and improved data sets, will remain a challenge for all future land use planning.

#### **Tools & Information Products**

- Yukon Bureau of Statistics (<http://www.eco.gov.yk.ca/stats/index.html>)
- Socio-economic Web Portal (<http://sewp.gov.yk.ca/region?regionId=YK.DW>)
- Statistics Canada (<http://www.statcan.gc.ca/start-debut-eng.html>)

### **ENVIRONMENTAL ASSESSMENT**

#### **Interests**

- The potential for cumulative effects in the White Gold region, particularly for mineral projects and related linear access, would be best addressed on a regional rather than project specific basis.
- Consideration is being given to access corridors to the White Gold region from Yukon's highway network to minimize cumulative effects. A list of baseline studies to support cumulative effects analysis is being prepared.
- Yukon government is working towards a series of recommendations for the YESAA process to ensure access is appropriately managed. When completed, information will also be provided to DRPC pursuant to 11.2.1.2 of the Umbrella Final Agreement, and should dovetail well with the Commission's regional planning work and schedule.

#### **Issues**

- The unprecedented level of mineral claim staking and resulting exploration programs in the White Gold region has raised concerns about cumulative effects on wildlife, particularly in relation to linear corridors.

#### **Tools & Information Products**

- Map of cumulative effects study areas and baseline information priorities under development.

### **ENVIRONMENTAL CONTAMINATION AND EFFECTS**

#### **Interests**

- There are contaminated sites in the region which need to be cleaned up.

#### **Issues**

- Contaminated sites may impact fish and wildlife habitat and populations as well as human health.

#### **Tools and Information Products**

- Contaminated sites registry.  
([http://www.env.gov.yk.ca/monitoringenvironment/contaminated\\_sites\\_regs.php#registry](http://www.env.gov.yk.ca/monitoringenvironment/contaminated_sites_regs.php#registry))

## **ENVIRONMENT SOLID WASTE AND AIR QUALITY**

### **Interests**

- There are multiple small landfill and incineration sites in the Dawson region.
- Effects of such sites need to be minimized.
- Healthy standard air quality should be maintained.

### **Issues**

- Landfills may impact fish and wildlife habitat and populations as well as human health.
- There is an influx of people, meaning more camps, higher use and possibly more landfills, more potential for contamination and a greater need for management, monitoring, and mitigation.
- Wood smoke, garbage burners and industrial-scale burners are a threat to air quality in the region.

## **FISH & WILDLIFE**

### **FISH**

#### **Interests**

- Fish species have high subsistence, commercial and sport fishery value in the planning region.
- There are 22 species of fish in the Dawson region, including three species of salmon.
- The Yukon, Stewart, and Whitestone rivers have the highest recorded diversity of fish species in the Dawson region.
- Fish are a primary indicator and a key component of the health of aquatic ecosystems.

#### **Issues**

- Maintenance of functioning aquatic ecosystems that support healthy fish populations is important to First Nations, the public and the government agencies.
- Salmon are migratory species that require broader regional and transboundary perspectives in habitat management.
- Industrial development has the potential to impact fish populations through direct loss of habitat, alteration of water quality or quantity.
- Additional road access increases the potential for harvest of fish from previously inaccessible locations. It also results in more river crossings and culverts, and the need for mitigation of negative impacts on fish habitat.
- Very little information exists on the distribution of freshwater fish and their important habitats in the planning region.

#### **Tools and Information Products**

- Department of Fisheries and Oceans (DFO) maintains a fisheries database called FISS.
- DFO and YG both have stream files that have information about fish resources.
- The Yukon Salmon Subcommittee has been established under the terms of the Umbrella Final Agreement (UFA). The public advisory body provides recommendations to the Minister of Fisheries and Oceans and First Nations on matters related to salmon and their habitat.
- <http://yssc.ca/>
- The Yukon Placer Authorization (YPA) provides guidance about the terms and conditions that regulate placer mining in the watersheds of the planning region.

- The Yukon Placer Secretariat has modeled the extent of salmon habitat and use for the Yukon River drainage, but it does not provide information for freshwater species distribution.
- <http://www.yukonplacersecretariat.ca/>

## **WILDLIFE**

### **Interests**

- Woodland and barren-ground caribou, moose and Dall's sheep inhabit the planning region and are important for subsistence, licensed hunting, and non-consumptive use (wildlife viewing).
- There are four caribou herds - Porcupine, Fortymile, Hart River and Clear Creek.
- Hart River and Clear Creek caribou are populations of Northern Mountain caribou and are listed as a Species of Special Concern under the federal *Species at Risk Act* (SARA). There is a draft management plan for this species. (<http://www.yfwmb.ca/northernmountaincaribou>) Also see [http://www.sararegistry.gc.ca/document/default\\_e.cfm?documentID=2244](http://www.sararegistry.gc.ca/document/default_e.cfm?documentID=2244).
- The Porcupine herd is comprised of barren-ground caribou. It is the Yukon's largest caribou herd and is cooperatively managed between the Yukon, Northwest Territories and Alaska via the Porcupine Caribou Management Agreement.
- The Fortymile herd is also comprised of barren-ground caribou and is an international herd that periodically winters partly in the Yukon, and summers in Alaska. A management plan for this herd was developed in 2006.
- Moose is the major species for subsistence and harvest in the planning region
- The largest numbers of sheep are found in the northern portion of the planning region in the Ogilvie Mountains. There are small, discrete groups of sheep occurring along the Yukon River in the southern portion of the planning region.
- Aside from Tombstone Territorial Park, there are currently no Habitat Protection Areas or Special Management Areas for wildlife in the planning region.
- The importance of the Klondike Valley area as a refuge for lynx has been identified in the Klondike Valley plan.
- The Dawson region is primarily a Beringia land form and is very lush and productive.
- Wildlife resources are managed with a combination of legislation, regulations, policies, environmental assessment guidelines and management plans.
- Identification and management of wildlife corridors that preserve connectivity. Such corridors allow the linkage of seasonal habitats and facilitate wildlife movement.

### **Issues**

- Maintenance of functioning ecosystems that support wildlife populations is vital to First Nations, the public and the responsible agencies.
- Industrial development has the potential to impact wildlife populations through direct loss of habitat, the creation of barriers to movement, direct mortality, disturbance to individual animals and disturbance causing avoidance of certain areas.
- Increased road access increases the potential for harvest of animals and roadkill.
- Human activity and associated increased hunting as a result of an influx of people can negatively impact wildlife populations.
- The potential for cumulative effects on wildlife is an important consideration in the planning region.
- In some areas, harvest rates for some species may be near or at maximum.

### **Tools and Information Products**

- The Department of Environment provides information on the distribution or range of the major wildlife species in the region.
- The Wildlife Key Areas (WKA) database provides information about important areas for certain species at critical times of the year. This includes information about known historical nesting areas. Maps and data can be accessed from [www.env.gov.yk.ca/wildlifebiodiversity/wildlife\\_key\\_areas.php](http://www.env.gov.yk.ca/wildlifebiodiversity/wildlife_key_areas.php).
- Specific detailed studies of wildlife populations are limited but modeling can complement the existing reports.

## **OUTFITTING AND TRAPPING**

### **Interests**

- Portions of three outfitting concessions overlap the planning region.
- There are 42 trapping concessions wholly or partially within the planning region.
- The outfitting and trapping concessions have associated camps, and in some cases titled property.
- Outfitting and trapping are important sustainable industries, and the region contains some very productive trapping areas.

### **Issues**

- Maintenance of functioning ecosystems that support wild populations is vital to trappers and outfitters.
- Outfitting generally relies on a wilderness experience where other human activity is minimal.
- Industrial development has the potential to impact wildlife populations through increased access for hunting, increase in human-bear conflicts, direct loss of habitat, and disturbance to the animals.
- Increased road access may increase the potential for harvest of animals.
- Human activity and associated interactions as a result of an influx of people can negatively impact outfitting and trapping.

### **Tools and Information Products**

- Data showing the boundaries of the outfitting and trapline concessions is available.
- <http://www.environmentyukon.ca/maps/view/nav/2/15/>
- <http://www.environmentyukon.ca/maps/view/nav/2/30/>
- Cabins, camps and associated holdings are mapped.
- Wildlife harvest numbers are available on a Game Management Subzone basis.
- Furbearer harvest numbers are available for groupings of 10 or more active traplines.

## **RARE FLORA, FAUNA and ECOSYSTEMS**

### **Interests**

- The planning region supports a number of rare and endangered plants, possibly rare small animals and some unique ecosystems.
- A portion of the planning region is classified as Beringian, an area that was not glaciated in the last Ice Ages.
- Although there are many small wetlands, there are no large wetland complexes in the Dawson planning region.

## Issues

- Maintenance of functioning ecosystems that support rare flora and fauna is vital to agencies, First Nations and the public.
- Industrial development has the potential to impact rare flora and fauna through increased access, small changes to water regimes in creeks, and direct loss of habitat.
- Human activity and associated interactions can negatively impact unique ecosystems.
- Limited knowledge of rare species in the region.
- Potential for invasive species in the reclamation of mineral properties.

## Tools and Information Products

- Biotics, a database of information about occurrences of rare species. See the Conservation Data Centre at [www.env.gov.yk.ca/wildlifebiodiversity/cdc.php](http://www.env.gov.yk.ca/wildlifebiodiversity/cdc.php).
- Rare ecosystems or features will be mapped using the Ecological Land Classification being developed [www.env.gov.yk.ca/wildlifebiodiversity/elc.php](http://www.env.gov.yk.ca/wildlifebiodiversity/elc.php).

## FORESTRY

### Interests

#### Forest Operations & Activity:

- Annual Limit for green wood harvesting is 5,000 m<sup>3</sup>/year (conifer) and 2,000 m<sup>3</sup>/year (deciduous) in the Dawson region, this limit is established in the *Forest Resources Regulation*. Following the finalization of the Dawson Forest Resources Management Plan (DFRMP) a new harvest level will be set.
- Currently, the largest forestry operator in the Dawson region is Arctic Inland Building Products, with a permanent outlet in Dawson and a current annual harvest of approximately 3,000 m<sup>3</sup>. Arctic Inland has updated its milling operation and has expanded its retail sales by developing a yard within Whitehorse.
- There are several other personal fuel wood suppliers in Dawson, with an estimated combined annual harvest of approximately 1,500 m<sup>3</sup>.
- From 1999 to 2008, an average of five roundwood permits and 10 commercial fuel wood permits were issued each year.

#### Forest Based Activity:

- In addition to timber and fuel wood harvesting, harvesting and processing of non-timber forest products, such as birch syrup, also contribute to the forest-based economy.
- Mushrooms are another commercial non-timber forest product that is occasionally harvested and sold, in the year following an exceptional wildfire event. Personal fuel wood collection and the harvest of other non-timber forest products, such as wild berries, are also common non-commercial uses of the forest land base.

#### Bio-Energy:

- Recently, a bio-energy project commenced in Dawson to utilize wood waste from Arctic Inland forestry operations. The first phase of the project is installing a wood chip boiler and heating Dawson's water supply and sewage treatment plant. The second phase includes adding boiler capacity to produce heat for a district heating plant to heat neighboring buildings. This project has the capacity to reduce diesel fuel consumption in Dawson by 600,000 litres per year. Projects of this type are expanding within the territory as energy independence and high heating costs drive people to utilize wood bio-mass for heating. There will likely be increased demand for wood energy over the short and long term.

### Legislation and Plans:

- The *Forest Resources Act* establishes a hierarchy of planning prior to harvesting. The larger strategic planning process or Forest Resource Management Plans and their linkages to regional planning are included within Chapters 11 and 17 of the Final Agreements. The FRMP identifies the long term forest land base where forestry operations can be considered and also the forest which can contribute to sustainable harvest.
- The Dawson Forest Resources Management Planning process was initiated in 2006 through a joint planning committee with equal representation from Tr'ondëk Hwëch'in and Yukon governments. The plan covers both settlement and non-settlement land. It is anticipated that the planning team will recommend the plan for review and approval processes in late 2011.
- There are currently ten approved Timber Harvest Plans (THP) within the Dawson region. No harvesting of timber under a harvesting licence may occur until there is an approved THP for the area.

### Issues

- Ensuring that there is an economically viable land base for sustainable forest resource harvesting. Viability generally requires access with limited road building requirements, three to five kilometers off existing all-season roads, and within 1.5 hours drive from the community of Dawson City.
- Maintaining the areas of traditional / historical harvesting and facilitating areas and priorities for future development of forest resources as identified through the *Forest Resources Act* planning processes.
- Access to forest resources.

### Tools & Information Products

- The Draft Dawson Forest Resources Management Plan is available on the Forest Management Branch Website at:  
[http://www.emr.gov.yk.ca/forestry/pdf/Y-EMF\\_bk\\_FMP3\\_draft.pdf](http://www.emr.gov.yk.ca/forestry/pdf/Y-EMF_bk_FMP3_draft.pdf).
- Existing Timber Harvest Plans are listed in the *Forest Resources Regulations*, existing and new THPs are provided on the Forest Management Website at:  
<http://www.emr.gov.yk.ca/forestry/204.html>.

## LANDS

### Interests

- Within the City of Dawson, the Land Management Branch (LMB) works in cooperation with Community Services and the City of Dawson for the development of planned lots within the municipal boundaries. While spot applications (commercial & institutional) are accepted within the city and subject to review with the municipality, no spot applications for rural residential are accepted within the municipality.
- LMB works with Land Planning Branch, EMR on any spot applications that occur within a local planning area such as West Dawson/Sunnydale. Spot applications are accepted in local planned areas but are subject to the zoning recommendations/regulations.
- In areas outside of local area plans, spot applications (rural residential, commercial/industrial, Institutional/Non-Profit) are accepted within 1km of all season roads except for big game outfitting and trapping uses which are accepted in hinterland areas.

- Many of land rights administered by LMB are located either in or near municipalities or along transportation corridors.
- LMB works with municipalities and Land Planning Branch-EMR to ensure any issuance of tenure is compliant with approved plans and in conformance with any applicable zoning.
- Land rights issued by LMB are subject to a review process that includes consultation with First Nations and may also include a YESAA review.

### **Issues**

- At present, there is no land tenure in place to address hinterland use of land for commercial wilderness type activities.
- Need to develop new sources of granular materials as existing sites are exhausted, particularly in the Dawson City area as well as along the Klondike Highway, Top of the World Highway and Dempster Highway.
- The demand for land (planned lots and spot applications) continues to grow which calls for increased demand for all levels of planning, and land tenure policy for commercial wilderness activity in the hinterland areas.

### **Tools & Information Products**

- The Land Information Management System (LIMS) provides a land registry database within Yukon land management branches which is supported by a GIS mapping system.
- Data from the GIS system is available through a land viewer system available on the EMR public website.
- [http://www.emr.gov.yk.ca/mlv\\_jump.html](http://www.emr.gov.yk.ca/mlv_jump.html)

## **LOCAL AREA PLANNING**

### **Interests**

- A local area planning process for West Dawson-Sunnydale is in the final stage of development before being submitted to YG and TH for approval.
- Additional local area plans or land development plans for Klondike Valley may be necessary to manage growth and guide development.
  - Memorandum of Understanding Respecting the Development of a Local Area Plan for West Dawson & Sunnydale, section 1.3 specifies that "The Parties may agree to enter into a separate local area planning process for Bear Creek, Rock Creek and Henderson Corner area".
  - Klondike Valley District Plan suggested the need for more detailed plans being developed for the broader Klondike Valley.

### **Issues**

- The broader Dawson area is experiencing increased demand for land and services in connection with increased mineral exploration activities.
- In cases where facilities cannot be located within the municipality or local planning areas, consideration is needed of infrastructure requirements in the region that serve both Dawson and outlying rural communities such as solid waste disposal sites, sewage lagoons, sources of potable water, airport, power lines, energy corridors, etc.
- Future growth areas and sequencing for rural residential, commercial and industrial land uses or mixtures of these land uses, that cannot be accommodated within municipal and local area plan boundaries, may need to be identified in the Dawson region, along with the need for additional sub-regional or local area planning in such areas.

### Tools & Information Products

- Draft West Dawson-Sunnydale Local Area Plan
- [http://www.emr.gov.yk.ca/lands/west\\_dawson\\_sunnydale.html](http://www.emr.gov.yk.ca/lands/west_dawson_sunnydale.html)
- Klondike Valley District Land Use Plan (1988)
- Klondike Valley District Land Use Plan – Implementation Strategy (1989)

## MINING & MINERALS

### Interests

- As of June 20, 2011, there are 51,959 active quartz claims totaling approximately 10,861 km<sup>2</sup> in the Dawson region. These claims are predominantly in the Klondike Gold Fields, the White Gold and the Dawson Range regions. There are also numerous claims east of the Dempster Highway.
- As of June 2011, there are 365 MINFILE occurrences (out of 2643 MINFILE occurrences Yukon wide). These occurrences include five mineral deposits (including Golden Saddle and Arc), six open pit past producers (including Clinton Creek and Brewery Creek) and seven underground past producers (of which three were for coal).
- The region is experiencing an increased level of mineral staking and exploration activity because of recent discoveries.

### Issues

- Maximizing the exploration and possible mineral development land base is necessary for economically sustainable exploration and possible future mineral development, recognizing that the operating mine footprint is relatively small.
- Identification of a sustainable land base for resource development needs to consider economies of scale, access, and compatibility of adjacent activity.
- Access fragmentation and access restriction to areas of mineral potential affects the ability to identify and achieve an economic and sustainable land base for resource development.
- Economic viability for mineral development will partially depend on access roads to the resources.
- Mineral potential north of the Tintina Trench is not well known.
- Access planning needed, especially in the White Gold area, with linkages to the Dawson Trail and other connecting routes. (See discussion of Dawson Trail in Transportation section.)

### Tools & Information Products / References

- Yukon Geological Survey MINFILE occurrences database (most current version is the online database [www.geology.gov.yk.ca/databases\\_gis.html](http://www.geology.gov.yk.ca/databases_gis.html)). Given the pace of exploration and new discoveries in the past few years and the requirements for confidentiality, the MINFILE database is not up-to-date and contains fewer occurrences than current exploration work activity would indicate.
- Bradshaw, G.D. and vanRanden, J.A., 2003. Yukon Regional Mineral Potential by Deposit Models 2003. Yukon Geological Survey, Open File 2003-11(D), 1 CD.
- Gordey, S.P. and Makepeace, A.J. (compilers), 2003. Yukon Digital Geology (version 2), Geological Survey of Canada, Open File 1749 (also known as Yukon Geological Survey Open File 2003-10(D), 1 CD.
- Yukon government quartz claims status maps.
- <http://www.emr.gov.yk.ca/mining/>

## **PLACER MINING / EXPLORATION**

### **Interests**

- As of June, 2011, there are 18,096 active and pending placer claims in the Yukon. 13,753 of these claims are in the Dawson planning region.
- Placer claims in the Dawson planning region total ~ 1100 km<sup>2</sup> and include the drainages of the Klondike River, Indian River, west Yukon (Fortymile and Sixtymile Rivers and the Moosehorn Range River), and lower Stewart River.
- More than 1900 km of placer streams (major gold bearing streams with significant mechanized placer mining operations) are found within the planning region.
- Placer mining contributes ~\$50 M per year to the Yukon economy and placer mines are largely (~90%) owned by Yukon residents.
- High gold prices are driving increased interest in placer mining and production on placer claims in the region.

### **Issues**

- Placer mining requires access to (and the ability to modify) rivers and streams. Such land use considerations need to be tied to the Yukon Placer Mining Regime stream classifications. Future exploration and development of placer resources depends on continued access to valley-bottom and riparian-zone land in the planning region.
- The placer industry requires roads for transporting heavy equipment and an industrial and residential land base for mining operations adjacent to the resource.
- Little information exists with regard to placer potential in the Nahoni Range and Ogilvie Mountains in the northern part of the planning region.
- Future expansion out of traditional gold fields will likely be focused where the most prospective deposits are located in the region.

### **Tools and Information Products**

- Yukon Placer Activity Map. YGS Open File 2001-34.
- Dawson Area Placer Activity Map, Portions of NTS Sheets 116B&C and 115N&O, Yukon. YGS Open File 2001-36.
- Stewart River Placer Project, Resource Appraisal Map for Placer Gold in the Stewart River (115N/O) and Part of the Dawson (116B/C) Map Areas, Yukon (1:250 000 scale). YGS Open File 2002-6.
- Placer geology of the Stewart River (115N&O) and part of the Dawson (116B&C) map areas, west-central Yukon, Canada. YGS Bulletin 14.
- [http://www.yukonplacersecretariat.ca/placer\\_atlas.html](http://www.yukonplacersecretariat.ca/placer_atlas.html)
- Yukon Placer Database ([http://www.geology.gov.yk.ca/databases\\_gis.html](http://www.geology.gov.yk.ca/databases_gis.html))

## **OIL & GAS**

### **Overview**

The northern section of the Dawson planning region encompasses 2,538 km<sup>2</sup> of the Kandik and 1,315 km<sup>2</sup> of the Eagle Plain sedimentary basins. Both basins are identified as having potential for oil and natural gas resources.

### **Interests**

#### **Eagle Plain Basin**

- The extreme southwest portion of the Eagle Plain Basin occurs in the Dawson planning region.

- Oil and natural gas discoveries have been made in southern Eagle Plain basin, immediately northeast of the Dawson planning region boundary (see Osadetz *et al.*, 2005).
- Thirty-four oil and gas wells have been drilled in the Eagle Plain basin. Seven wells recovered oil/condensate and twenty-four recovered natural gas from drill stem tests (Osadetz *et al.*, 2005).
- Mean petroleum resource estimates for the entire Eagle Plain Basin are 436 MMbbls oil and 6,054 Bcf gas (Osadetz *et al.*, 2005). More subsurface and surface geological knowledge is required to adequately delineate and quantify oil and natural gas resources.
- There are no oil and gas dispositions in the planning region portion of Eagle Plain Basin. Northeast of the planning region there are existing dispositions.

### **Kandik Basin**

- The southeast portion of the Kandik Basin occurs in the Dawson planning region.
- The Kandik Basin contains sedimentary strata which are prospective for both oil and gas resources. Mean petroleum resource estimates for the Yukon portion of the Kandik Basin are 99.3 MMbbls oil and 649 Bcf gas (adapted from Hannigan *et al.* (2000) by adjusting for area % of play occurring in Yukon). These values are based on conceptual plays in an area where no defined pools or discoveries have been made.
- In general, there is a lack of geological knowledge about the region. In the Alaska portion of the basin, oil staining has been observed in outcrop samples. In 2000, a resource assessment was conducted for the basin based on very limited subsurface geological data. In order to adequately assess the petroleum resource potential of the basin, substantial subsurface data (including well data and seismic data), and a better understanding of the rock units from surface outcrops would need to be obtained.
- Petroleum exploration in the Kandik Basin in the Yukon occurred in the early 1970s. Between 1970 and 1972, three exploration wells were drilled in the basin. These wells did not encounter hydrocarbons. A reflection seismic survey of approximately 180 line-kilometres was conducted in the region in 1971.
- Based on limited geological knowledge in the surrounding region, the rocks in the Kandik Basin are expected to contain all elements of a petroleum system including reservoir and source rocks, seals and traps.
- There are no oil and gas dispositions in the Yukon Kandik Basin.

### **Issues**

- Access fragmentation and access restriction to areas of petroleum potential affects the ability to identify and achieve an economic and sustainable land base for resource development.
- The identification of an economically sustainable land base for resource development needs to consider economies of scale, access and compatibility of adjacent activity.
- Exploration and future development in the region is dependent on short-term exploration access (e.g. drilling programs, seismic acquisition) and long-term access and infrastructure corridors to potential development projects.
- Development of oil and gas resources in and north of the planning region is dependent on access to potential industrial customers in the South such as the mining belt in the southern portion of the planning region. Consideration of an access and energy corridor traversing the region is required.
- An inventory of surficial materials (e.g. sand and gravel) would be beneficial as these resources are key building materials for roads and pipeline corridors.

## Tools & Information Products / References

<http://www.emr.gov.yk.ca/oilandgas/>

Hannigan, P.K., Osadetz, K.G., Dixon, J, and Bird, T. 2000. Petroleum resource assessment of the Kandik Basin, Yukon Territory, Canada. Oil and Gas Resources Branch, Department of Economic Development, Yukon Government, 20 p. plus appendices.

Oil and Gas Resources, Department of Energy, Mines and Resources, Government of Yukon, Yukon Oil and Gas: A Northern Investment Opportunity, 2010.

## PARKS & PROTECTED AREAS

### Interests

#### Tombstone Territorial Park

- Tombstone Territorial Park (TTP) is the only protected area located within the Dawson planning region. Comprising a total of 2,050 km<sup>2</sup>, TTP was formally designated as a park in 2004 and further established as a Natural Environment Park in August 2009, when the Park Management Plan was approved by the Parties: Yukon and Tr'ondëk Hwëch'in governments.
- Abundant populations of five big game species inhabit TTP, which is highly unusual in so small an area. The area is also critical to Hart River caribou, a local woodland herd.

#### Recreation Values

The Klondike Region is one of the Yukon's most active recreation and tourism destinations. The region is well known for its wilderness landscapes, wildlife resources and recreational river routes – with most activities centered on the Yukon River, Tombstone Territorial Park, and the Dempster Highway. It is an important recreation area for the wilderness tourism industry as well as for Yukon residents and self-guided tourists. TTP has exceptional hiking, sightseeing, hunting and fishing opportunities. Other popular activities within the region include hiking and backpacking, canoeing, fishing, boating, biking, berry picking, horseback riding and photography. Winter recreational activities focus on Dawson City for dog mushing, and Tombstone Territorial Park for skiing and snowmobiling.

### Issues

#### Tombstone Territorial Park (TTP)

- Development activities that are occurring outside the park boundaries – and associated potential cumulative effects – could affect the state of the ecological and cultural features of the park – i.e. wildlife corridors, critical habitat for wildlife whose range extends beyond the boundaries of the Park.
- The well-being of TTP's wildlife populations relies on healthy ecosystems inside and outside the park boundary. Management of habitat continuity beyond the park boundary is an important contribution to the well-being of TTP's wildlife populations.
- Since hikers and other recreational users often travel into TTP from routes that begin outside the park boundary, a high quality wilderness setting adjacent to the park is important for the overall wilderness experience.

#### Protected Areas and Conservation Priorities

- There has never been a comprehensive assessment of conservation priorities in the planning region in the past. Therefore there is a need to assess and identify conservation priorities

and potential protected areas as the Dawson regional plan progresses. Criteria for protected areas would include ecological, cultural and recreational factors, and resource values.

- Waterways, wetlands, and riparian zones in the planning region provide important ecological functions, and can provide resilience to climate change.
- There is a need to establish long-term climate change monitoring in the planning region, with sites in each ecoregion or Ecological Land Classification unit that serve as permanent ecological benchmarks.

### **Tools & Information Products**

- Outdoor Recreation Data Review – a report commissioned by Yukon Parks and contracted to Environmental Dynamics Inc.
- Recreation Features Inventory maps (to be digitized in 2011).
- Tombstone Territorial Park Management Plan (2009).
- <http://www.env.gov.yk.ca/parksconservation/tombstonepark.php>

## **RENEWABLE ENERGY**

For the purpose of this report, 'renewable energy' is defined as energy which comes from natural resources such as sunlight, wind, rain, tides and geothermal heat; all of which are renewable or naturally replenished. Current renewable energy interests in Yukon include hydro electric, solar, wind, geothermal and biomass energy. (Note: In addition to the information below, the Yukon Energy Corporation will submit input on issues and interests directly to the DRPC.)

### **Interests**

**Hydro Electric** - The Dawson region has recently and significantly lessened its dependency on diesel power generation in favour of hydro power from the Mayo dam located outside of the planning region. The North Klondike River was a source of power in the past for the Dawson region and could again be a source in the future. (See Section 7.8.1 of the Tr'ondëk Hwëch'in Final Agreement for reference to the North Fork Hydro Project.)

**Solar** - The Dawson region receives on average approximately 2.66 kWh/m<sup>2</sup> of solar radiation in any given day making solar energy a viable technology for producing both heat and electricity; however, the current economics of the energy sector make the use of large scale solar energy projects in the region unlikely in the short term. This region may see an increase of smaller scale solar projects associated with existing residential/commercial development.

**Wind** - The wind speed has been measured at several sites (approximately six) in the Dawson region and all sites have shown a poor wind regime, with wind speeds under five metres per second. This does not mean that there are no suitable sites in the region. The best wind regimes are on high mountain tops, but not at the specific locations where the wind was measured in the Dawson region. The findings in the Dawson region are consistent with other areas in the Yukon.

**Geothermal** - No records or research on geothermal resources in the Dawson City region.

**Biomass** - See Forestry section for a description of the resource and a current bio-energy project.

### Issues

- Access is needed for potential future renewable energy producers in the region to be able to connect to the Yukon's electrical energy grid.
- Renewable energy development needs to be undertaken in an environmentally, social and economically sustainable manner.

### Tools & Information Products

- The "Energy Strategy for Yukon" dated January 2009, is available at [http://www.energy.gov.yk.ca/energy\\_strategy.html](http://www.energy.gov.yk.ca/energy_strategy.html).
- A renewable energy resource map is available at [http://www.energy.gov.yk.ca/renewable\\_energy\\_map\\_viewer\\_jump.html](http://www.energy.gov.yk.ca/renewable_energy_map_viewer_jump.html).

## TOURISM

### Interests

- The Dawson region is a premier destination for visitors to the Territory. Regional tourism is an important contributor to the Yukon economy.
- The Yukon River, Dempster Highway, Tombstone Territorial Park and wilderness areas accessed from rivers and the Dempster Highway north of Dawson City are particularly important.
- Historic sites and travel routes play a key role in supporting the region's tourism sector as attractions and as the basis for interpretation of the region's ancient and recent history.
- Canoeing, hiking, motorized boat tours and summer and winter events are the most popular visitor activities:
  - Annually, 14-18 tourism operators, the majority of which are Yukon-based, guide over 300 multi-day canoeing clients on the Yukon River; and 1,500 tourists rent canoes for self-guided trips on the Yukon River.
  - About 15,000 tourists take motorized boat trips on the Yukon River each year, mostly between Dawson and the Yukon-Alaska border and return.
  - From 1995 to 2007, annual visitation to the Dempster Highway Interpretive Centre grew from about 3,000 to over 12,000. Approximately 20 tour companies include the Dempster Highway and Tombstone Park as part of a Yukon tour, and six companies, the majority of which are Yukon-based, guide multi-day trips into the Park.
  - Three outfitters guide hunts in the planning region.

### Issues

- Tourism is a resource-based industry. The continued success of existing tourism businesses and potential growth in the Dawson planning region depends on maintaining important resources that tourism is based on.
- Industrial activity and related access can have negative impacts on wilderness, wildlife and historic resources that support tourism. Areas of particular concern include:
  - Aesthetics, water quality and safety considerations along the Yukon River corridor;
  - Development activities near Tombstone Park boundaries that affect tourism values;
  - Guided hunting activity and wilderness and wildlife values that support guided hunting;

- Scenic viewsapes and access to recreation activities along the Dempster Highway and river corridors; and
- Impacts of new ground access on Yukon Quest International Dog Sled Race route. (See discussion of Dawson Trail in Transportation section.)
- Increased resident and visitor use of popular routes and destinations may impact environmental and cultural values and resources.

### **Tools and Information Products**

(See Dawson Regional Land Use Plan Tourism Information Report for more information and detail.)

- Yukon Wilderness Tourism Status Report.
- *Yukon Wilderness Tourism Licensing Act* trip and rental report information.
- Klondike Regional Land Use Plan: Outdoor Recreation Data Review.
- Draft Wilderness Tourism Resources and Activity map for the planning region.
- 2004 Yukon Visitor Exit Survey border crossing data and other visitor data.

## **TRANSPORTATION**

### **Interests**

The Klondike, Dempster and Top of the World highways are important transportation facilities in the planning region. There are many maintained secondary highways and unmaintained roads in the region as well providing access to residential, commercial, recreational, cultural and industrial properties and/or land uses. The Dawson Airport provides a vital transportation service to the region. Several other airstrips serve a variety of economic and public safety purposes. Chapman Lake and McQuesten Field airstrips are managed by YG Highways and Public Works (HPW). HPW also retains tenure on a number of road building and maintenance material sources in varying stages of development.

### **Issues**

- The need to preserve the ability to provide reasonable ground access within the region in response to confirmed access needs.
- Continued operation and ongoing development of existing construction and maintenance material sources, including sources of water.
- Need to develop new material sources as existing sites are exhausted and new sites are identified.
- Potential for development of new roads or other infrastructure in response to economic or other development that requires transportation service. Wherever possible, linear infrastructure development, such as roads, power lines and pipelines, should be grouped within a corridor.
- Potential replacement of ferry service at Dawson City with a permanent bridge.
- Major upgrading of Klondike Highway requiring realignment.
- Location of Dawson Airport and its proximity to the Klondike Highway.
- Potential year round operation of roads now operated seasonally.
- The Dawson Trail and other connecting accesses are not all-season routes, but may have potential for all-season access to the White Gold region. There are multiple and varied uses of such trails including tourism, dog-mushing, mining, hunting and recreation. There is a need for access planning and consideration of cumulative effects. (See Environmental Assessment section.)

## WATER RESOURCES

### Interests

- The Water Resources Branch is committed to the preservation, conservation and sustainable use of water resources in the region.
- As of June 2011, Water Resources Branch is responsible for: three active and 12 inactive hydrometric stations, three active and one inactive snow survey courses, one active groundwater monitoring site, and one active water quality monitoring network station (operated in partnership with Environment Canada) within the Dawson Planning Region.
- There are several active water licences in the region which the Water Resources Branch enforces under the *Waters Act*.

### Issues

- This is a data sparse region. Therefore, increased water quality and quantity baseline data is required to adequately understand and support the impacts to water of future developments.
- The use of historical hydrometric data (there is little current data) for design purposes could result in inadequate design.
- Climate change could significantly alter flow regimes and water quality (with respect to elements liberated from permafrost such as organic carbon).
- Due to the acidity of soils, disturbance of the soils has the potential to impact water chemistry.
- The long winter and limited flow regimen severely limits human water use and the dilution of contaminants.
- Future industrial demand for water is expected to increase which may impact water quality and quantity.

### Tools & Information Products

- Yukonwater.ca available at: <http://yukonwater.ca/>.
- Yukon Snow Survey Bulletin and Water Supply Forecast available at [http://www.env.gov.yk.ca/monitoringenvironment/snow\\_survey.php](http://www.env.gov.yk.ca/monitoringenvironment/snow_survey.php).
- River Flood Forecasting (data maintained internally by Water Resources Branch).
- Yukon Hydrometric Network - historical data from 1975 to 2004 available at <http://www.env.gov.yk.ca/pdf/hydrometricmanual2005.pdf> (data since 2004 is maintained internally by the Water Resources Branch).
- Yukon Meteorological Network (data maintained internally by Water Resources Branch).
- Yukon Wide Long-Term Groundwater Monitoring Program (data maintained internally by Water Resources Branch).
- Yukon Water Well Registry - data available through the Groundwater Information Network at [http://ngwd-bdnes.cits.nrcan.gc.ca/service/api\\_ngwds:gin/en/wmc/aquifermap.html](http://ngwd-bdnes.cits.nrcan.gc.ca/service/api_ngwds:gin/en/wmc/aquifermap.html).
- Pacific Yukon Water Quality Monitoring Program data available on Environment Canada's website at <http://ec.gc.ca/eadouce-freshwater/Default.asp?lang=En&n=95862893-0>.

## CONCLUSION

Yukon government departments have identified a very wide range of technical interests and issues for the Dawson Regional Planning Commission (DRPC) to consider in developing a regional land use plan. As noted at the start of this document, the interests and issues listed are technical in nature, and not necessarily exhaustive or reflective of Yukon Government priority and policy.

The many contributors to this document throughout Yukon government have a wealth of knowledge and experience that will be provided to Dawson Regional Planning Commission (DRPC) in the preparation of the Dawson Regional Plan, particularly during the next Resource Assessment stage of the planning process. Should there be any questions or need for further information about this report or concerning other documents and expertise within Yukon government; pursuant to Section 11.1 and Appendix A of the Terms of Reference for DRPC, please contact the Yukon's Technical Working Group member for further details, meetings, briefings or transmittal of information between DRPC and Yukon government.

Yukon looks forward to the next stages of the planning process, and to continued productive and positive work efforts with the Dawson Regional Planning Commission.

## **APPENDIX 1: EXISTING AND ONGOING PLANNING AND POLICY PROCESSES AND REGULATIONS IN THE DAWSON REGION**

The Yukon government sectoral planning report (as of July 2011) identified the following planning processes for the Dawson Planning Region:

- Tombstone Territorial Park Management Plan, 2009.
- A draft Tombstone Corridor plan prepared by an internal Yukon Government working group will be undergoing internal reviews.
- Regular North Yukon Oil & Gas disposition processes are proceeding.
- Mineral assessments will be conducted in support of regional land use planning.
- *Dempster Highway Development Area Regulations* pursuant to the *Area Development Act*.
- Yukon Common Oil and Gas Regime Overview.
- Dawson Heritage Management Plan.
- Dawson Tourism Plan.
- Dawson Forest Resources Management Plan (draft).
- Local area planning for West Dawson and Sunnydale.
- Regional Economic Planning pursuant to Chapter 22 of the Tr'ondëk Hwëch'in Final Agreement.

## Appendix “B” – TH Submission



## **Dawson Regional Land Use Plan**

### **Preliminary Report on Issues and Interests**

#### **Tr'ondëk Hwëch'in**

The following submission is a combined effort of various departments within the Tr'ondëk Hwëch'in Government that have responsibility for land use and management on Tr'ondëk Hwëch'in (TH) Settlement Lands and within the TH Traditional Territory. It represents an initial process of identifying some of the issues and interests of importance to the Tr'ondëk Hwëch'in. It must be noted that this does not represent an exhaustive list on the issues and interests of importance for the TH in this planning region. Further feedback on the identification of interests and issues will occur over the coming months as TH initiates (and the Commission will also be conducting) planning sessions with TH Citizens and Elders. Further TH Government involvement will also occur through its Technical Working Group representatives and by individual TH Departments that will be involved in the Land Use Planning process.

#### **Interests and Issues**

Since time immemorial, The Han people of Tr'ondëk Hwëch'in have practiced a culture that has been passed down through one generation after another through oral history. Through this custom, they have been passing along their “interests” in the area for generations. While it can be said that the TH people and their government have diverse interests in the planning region, for the sake of the organization of this submission to the Planning Commission, these interests will be grouped in the following broad categories:

- Heritage Resources and Cultural Protection
- Fish and Wildlife Harvesting and Habitat
- Sustainable Development

Many of the interests within these categories are explicitly concerned with the land base itself, while others are concerned with the people's connection to the land and the desire to maintain a relationship with the land.

It must be noted that the TH Final Agreement contains many of the principles and goals associated with TH's interests in the region. This submission will not reiterate all of the numerous principles, goals, management responsibilities, and rights of TH citizens in the region, but a few examples will be noted along the way.

## **Heritage Resources and Cultural Protection**

### **Interests:**

- For thousands of years, the Dawson Land Use Planning area has been utilized by First Nation people. The Tr'ondëk Hwëch'in have traditionally occupied, traveled, or harvested in virtually every corner of the planning region. The Tr'ondëk Hwëch'in have traditionally lived off the land, practiced their own traditional laws, developed economic links with newcomers, and nurtured enriching family lives. Today this presence is reflected in many physical and non-physical indicators such as trails, name places and archeological sites. Traditional use of medicinal plants, edible plants, fish, furbearers, and big game continue to have strong cultural importance and help to maintain a strong connection between TH people and the land.
- For the Tr'ondëk Hwëch'in, heritage is rooted in the landscape. Taking care of the land is critical as all the land's resources are a valuable part of this heritage. Tr'ondëk Hwëch'in heritage is kept alive and protected when TH people hunt, fish, and harvest. This stewardship protects the land and its resources. The Tr'ondëk Hwëch'in have a broad definition and perception of what heritage is and what it includes. Heritage is not something from the past, but a way of life reflected in the beliefs, values, knowledge, and practices passed from generation to generation. Heritage permeates all aspects of First Nation lives, communities, and governance. It includes much more than the material remains that are left behind; these heritage resources are understood as physical reminders of what is truly important.
- Protecting TH Culture and Heritage means:
  - Recognizing, conserving, and promoting TH heritage and cultural resources and values, including traditional land use practices associated with fish and wildlife and other traditional harvesting;
  - Ensuring Tr'ondëk Hwëch'in citizens connection to land is protected;
  - Ensuring the continuation of First Nation culture and traditional economy; and,
  - Maintaining the integrity of, and access to, important community use areas.
- Current community use areas include important locations for current subsistence harvest activities, cultural pursuits, and travel purposes. Current community use areas support such activities as hunting, fishing, trapping, wood cutting, berry picking, and general travel. First Nations and other residents of the region spend a considerable amount of time on the land participating in these various seasonal activities.

Heritage Resources can include, but are not limited to;

- Harvestable Resources (e.g., wildlife, fish, and plants, and their habitats)
- Migration routes, waterways, salt licks, calving areas, and trap lines
- Medicines
- Raw materials (e.g., bark, wood, stone, bone, fibers, and dyes)
- Place names
- Camps, trails, and caches
- Burial sites
- Sacred sites
- Traditional knowledge and recorded oral histories
- Archaeological and historic sites
- Archives
- Artifacts
- Songs

Again, TH believes it is very important for the DRPC to recognize, conserve, and promote heritage and cultural resources and values, including traditional land use practices.

#### **Issues:**

The following is a list of identified issues associated with Heritage Resources which TH considers of critical importance in moving forward with a Dawson Regional Land Use Plan (DRLUP):

#### **Recognizing the Tr'ondëk Hwëch'in Perspective**

- Ensuring oral history and traditional knowledge are acceptable and valid means of identifying and protecting heritage, cultural, and community use areas;
- Ensuring management principles and recommendations consider the complications of ownership and management issues related to heritage resources due to the differing definitions used between governments;
- Advancing the TH definition of heritage resource management, such as citizen stewardship and usage of culturally important places and heritage resources
- Ensuring both Tr'ondëk Hwëch'in as well as Yukon Government definitions surrounding heritage are represented;
- Ensuring values inherent in cultural landscapes are adequately considered in land use decisions- for example large natural features, rivers, name places and other areas which are an integral part of First Nations heritage and culture;

#### **Implementing Adequate Heritage Management Procedures**

- Standards of pre-ground impact assessment work need to be considered for heritage, cultural, and community use areas for all types of development activity which may impact these.

- Determining thresholds of development in areas of cultural or heritage importance;
- Determining adequate buffer zones around community use and culturally important areas;
- Avoiding land use impacts in the vicinity of identified heritage and historic resources through identified buffers zones;
- Some areas which contain high concentrations of identified heritage and historic resources, or highly important or special resources, may require special protection measures.
- Determining a quantifiable way of assessing cumulative effects of mining activities (both placer and hard rock) on significant cultural, heritage, and current community use areas;

### **Avoiding Potential Conflicts/Issues**

- Reducing other activities in significant heritage and current community use areas during important seasonal use periods
- While many heritage resources have been identified and their locations are known, new resources and sites are discovered regularly;
- Many heritage resources are difficult to recognize, and are easily disturbed.
- The location and level of use of all community use areas are not well documented.
- Use areas may change over time, given availability of resources and travel conditions.
- Conflicts between heritage, subsistence harvesting and industrial land uses are likely to occur wherever they overlap.

## **Fish and Wildlife Harvesting and Habitat**

### **Interests:**

The Dawson Land Use Planning region is rich with fish, wildlife, birds and plants. Some of these species are managed through local efforts while others have had their management expanded to involve international management groups, for example with Yukon River salmon and the Porcupine Caribou. Critical to management efforts are the protection of habitat and maintenance of water quality within the ecosystems in which fish and wildlife thrive.

### **Fish and Wildlife Harvesting**

- The fish, wildlife, birds and plants which can be found within Tr'ondëk Hwëch'in Traditional Territory are an integral component of whom the Han people are, people that are better known today as the Tr'ondëk Hwëch'in . The Tr'ondëk Hwëch'in continue to harvest heavily from the land, and TH Citizens can be seen wondering about on the land throughout all seasons of the year, as each season produces a distinctive harvest period. Harvesting and preserving fish, wildlife and plants is a tradition which has never been lost throughout the hundred or so years of integration

and alienation within the TH Traditional Territory. Harvesting fish, wildlife, birds and plants is not only for the food value – for First Nations individuals and communities, it extends deeper than that as harvesting times are considerably holistic. Harvesting is also a time for re-connecting with the land and its environment, bonding with family, and teaching through oral knowledge and history.

- Again, it must be noted that the honour of the YFN Final Agreements cannot be ignored by the DRPC, as the principles contained within will continue to serve as a guide for planning in the region. For example, Chapter 16 of the TH Final Agreement outlines the TH people's inherent right to continue the tradition of harvesting and conservation management. Section 16.1.1.9 of the Agreement outlines the objective of "*honoring the harvesting and Fish and Wildlife management customs of Yukon Indian People and to provide for the Yukon Indian People's ongoing needs for Fish and Wildlife*". The TH people have no plans to discontinue these traditional pursuits on Settlement land or within THTT anytime in the near or distant future. The DRPC needs to take this into account. Rapid or poorly planned development in the region can cause cumulative adverse effects that will reduce fish, wildlife, birds and plant habitat which will in turn limit harvest, and the resulting loss of culture would not only be unacceptable but would require compensation (to assist with cultural enhancement through alternative avenues). Such a consequence needs to be avoided.

### **Fish and Wildlife Habitat**

- **Moose** migrate throughout most of the DLUP region; moose can be observed in common places year after year. Furthermore, through traditional knowledge, many moose-licks can be identified as an area critical for habitat. Regular moose families can be located in the same areas through out the year, mainly around wooded areas, wetlands, river valleys and lakes.
- For many generations, moose could be seen in herds of up to thirty in a group. In the 70's, the Tr'ondëk Hwëch'in Elders brought forward a resolution to the Chief and Council to protect the cow moose, as the elders were concerned about the decline of moose populations in Southern Yukon. Furthermore, fragmentation and alienation of wildlife habitat has significantly affected wildlife populations in Southern Yukon. Today, the Tr'ondëk Hwëch'in manage moose populations with reference to traditional customs and laws.
- **Caribou** are just as important as moose, although considered to be much more sensitive due to the animal's food resources. The caribou is a large part of the food chain, not only for humans, but for wildlife carnivores as well. For many generations, caribou were seen in very high numbers, unlike today where many caribou populations are declining throughout the North and in particular, within the THTT.

Four Caribou groups migrate in different areas within the DLUP region, the Clear Creek, Hart River, Forty Mile and the Porcupine Caribou (PC):

- 1) The Clear Creek Caribou generally migrate in the Clear Creek area, migrating North up-ward to the North Klondike areas and again, South into the Indian River areas.
  - 2) The Hart River ranges in the Hart River Mountain areas, from Klondike River area on up the Dempster mountain ranges and river valleys towards the Blackstone River area.
  - 3) The Forty Mile Boundary has been developed by the Forty Mile Caribou Habitat Working Group, the most important area for migration ranges from the Yukon River to the Sixty Mile River and in-land towards Tombstone Park.
  - 4) The Porcupine Caribou migrate during the winter throughout the mountain ranges into the Tombstone Valley, for most winter seasons, generally wintering as far down as Wolf Creek.
- Today, the Tr'ondëk Hwëch'in continue to implement conservation management through traditional laws and customs. For many years, TH has significantly reduced harvesting of Forty Mile Caribou due to declining populations. Furthermore, TH Citizens had reduced harvesting of Porcupine Caribou throughout a period when it was thought that the PC had been experiencing a decline. TH has an interest in protecting caribou habitat throughout harvest use areas. Additionally, three of the herds are known as mountain caribou, which are listed as a Species of Concern under the Species At Risk Act (SARA). Moreover, the re-growth of caribou food has been estimated to return within a forty year period, therefore; land development is a great concern in terms of protecting caribou food resources.
  - Through traditional knowledge, there are three known **Sheep** habitat areas:
    - 1) One in the Angel Comb/Sheep Mountain area up the Dempster;
    - 2) another in the Shell Creek area in the lower Yukon River section; and,
    - 3) One in the Southern Yukon River, specifically around the White River area.
  - **Sheep** are not as accessible as moose and caribou; these relatively inaccessible species were known to TH people as delicacies and only a few people were honored with feasting on delicacies, such as elders and some adults. Today, for many elders this is still the case. As for accessibility, it is much easier to harvest sheep than in the past and the animals are just as important as moose and caribou as a traditional food. Since sheep habitat in a very small migration area where they can feel safe from people and predation, it is important to ensure that sheep habitat is protected not only from land development but also from repeated air travel.
  - **Salmon**, specifically Chinook and Chum, are an integral part of TH People's traditional food. Through traditional knowledge, it is known that the annual Chinook and Chum salmon harvest was so plentiful that there was never a food shortage

during the summer season. Today, the only stories that we can pass on about the Chinook and Chum run are about how so many cumulative influences have contributed to the decline of this great fish and that TH can no longer harvest as much as our families need, and are instead limited to just an individual's need. Every year for the past seventeen years, Yukon First Nations have observed the effects of human development and climate change on the salmon. TH is interested in reducing the human effects of industrial and other development activities on the natal, rearing, and smolts feeding routes of these fish, so that they may have a chance of returning to large populations. Further, the Chinook Salmon are listed in SARA as a Species of Concern.

- TH People have always depended on Chinook and Chum salmon. Today, more and more TH Citizens have expressed a growing interest in fishing for Chinook, and although not an easy task, it is well worth it to experience the holistic nature of a harvest tradition that was almost lost. The Elders get very excited and wait in anticipation and appreciation for fresh salmon; this same traditional gesture has been passed down through traditional teachings for many generations. As Chinook salmon is very important to our people, TH has been teaching the Youth about salmon for seventeen years so that they learn to have respect for this great fish. Since the Chinook is listed as a species of concern, the DRLUP will need to ensure that Chinook and Chum salmon habitat and migration routes are protected.
- There are, of course, other species of importance within the planning area. The overall food chain is significantly important to monitor throughout the coming years, as with Climate Change there is a potential for significant adverse effects on traditional foods including fresh water fish and salmon. Again, human activities considered during the construction of the DRLUP should be viewed in a long term context of fifty years or more.
- The **Yukon River** represents a key corridor for the salmon, and for the TH people this is a special corridor. Transportation along the river has been a part of the Han life since time immemorial, and fish, wildlife, and plants that thrive in this corridor must be maintained and enhanced. The Yukon River is well used by a variety of people and industries, and management decisions must consider the cumulative effects of human activity along this special corridor.

\* \* \*

In summary, harvesting is important to the TH People, and accordingly it is important to ensure that there is significant habitat so that moose, caribou, fish, birds and plants (including berries) and other species can thrive and have adequate protection from significant human activity and its effects.

#### **Issues:**

#### **Compatible Land Use**

TH citizens have historically used, and presently use, many areas within what is known as TH Traditional Territory. TH Settlement Lands are situated in all direction within the DLUP area, extending out to the boundaries of the traditional territory. The majority of these lands were specifically selected for the purpose of practicing traditional pursuits including trapping, hunting, and fishing, while allowing for other purposes such as agriculture, commercial, mineral and forest resource harvesting as appropriate for Sustainable Development. While TH is amenable to certain areas having differing thresholds for renewable and non-renewable resource development activity, other areas are of great interest to TH for harvesting and will likely require a higher level of habitat protection.

### **Harvesting Areas**

**It must be stressed that the entire TH TT is considered a harvest area and is used as a harvest area.**

However, the following areas require extra consideration as they tend to be utilized more often than other areas:

- Dempster Highway Corner to the North Ogilvie River extending out-wards to the West and East side of the highway and river routes including the Ogilvie, Hart, North Fork, McQuesten, outwards to Hungry Lake
- Klondike Highway, South of Henderson Corner to Gravel Lake, extending outwards on either side of the Border to the Stewart River and Klondike River
- Top of the World Highway, North of the West Dawson/Sunnydale area to the Canadian/US Border, extending down many areas, including the Sixty Mile, Forty Mile, California Creek and Bruin Creek.
- The Yukon River Valley corridor

### **Trapping Areas**

Just as important in the past, several Citizens continue to trap today as a means of tradition passed on to provide for food and clothing, as well as income. TH has a number of commercial trappers, for some, trapping activities have been exercised for three generations. Out of 43 trapping concessions within THTT, TH and TH Citizens are registered owners of approximately thirty-seven percent of traplines in THTT. Although, not all of the registered TH trapping concessions are active, it is anticipated through youth education trapping workshops commencing in the near future, will provide further initiative and gained improvements to trapping interest and activities.

- A large part of these trapping concessions are adjacent to or extend through the Klondike region, ranging near Dawson outward adjacent to the Klondike River on-wards past Gravel Lake.
- The majority of these trapping concessions range from Km 1 to Km 266 of the Dempster Highway.
- Furbearing wildlife trapped in these areas include: Link, wolf, wolverine, fox, beaver, otter, coyote, weasel, martin, mink and squirrel.

Many of the TH Traplines have existed for up to five decades, it is imperative trapping areas be respected and considered through the DRLUP development. Many of the traplines have proven suitable for the activities associated with their use and any potential relocation of traplines would involve a significant effort and financial investment.

## **Sustainable Development**

Central to the TH Final Agreement and essential to TH for inclusion in a Land Use Plan for the Dawson area is the concept of Sustainable Development. Development in the region must be sustainable for the benefit of present and future generations. Sustainable development is often a misunderstood, misused or obscure term to some, but for the TH people and government the interest is very clear: the term means “*beneficial socio-economic change that does not undermine the ecological and social systems upon which communities and societies depend.*” Sustainable development involves goals of equity and a long-term outlook, as both intra- and inter-generational goals are central to a deep understanding of the term’s meaning. TH is interested in Sustainable Development, and this interest is central to the planning process.

A goal of the LUP process is to strike an appropriate balance of sustainable economic development activities *so long as* there remains the ecological and social system from which our communities and our society can depend. Ecology and economics both contain the root word *eco*, from the Greek word “oikos”, which translates to “house” or “habitat”. “Economy” should be about how we manage our house, and “ecology” is how we know or understand our house. Ecology and economy should not be considered disciplines that can be traded off against each other; instead they are inextricably linked and critical to both human survival and prosperity.

### **Interests and Issues:**

Some of the Interests and Issues associated with Sustainable Development for TH include:

### **Mineral Exploration and Mine Development**

Interests:

- There is currently a very high level of mining exploration activity taking place in the Dawson region.
- Many TH citizens and companies are involved in the mining and mineral exploration field.
- TH supports a responsible and sustainable mining and mineral exploration industry. TH is supportive of both the placer and quartz mining industries and is interested in helping to facilitate new, responsible and productive quartz and placer mines.

## Issues:

- The existence of mineral claims in an area does not presuppose that mining is the best and only land use for the particular area.
- Mineral claims continue to be staked in the DRLUP area despite a request to the Yukon Government to initiate a moratorium on quartz claim staking. Failure to initiate a staking moratorium from the present day to the completion of the planning process may seriously jeopardize the creation of a DRLUP. TH is concerned about the Yukon Government's commitment to the LUP process in the Dawson region if a staking moratorium is not instituted soon.
- There are certain general areas within the planning region where TH will likely support higher levels of mineral activity and other areas where less activity may be warranted. A threshold approach should be considered so as to best characterize levels of acceptable activity within certain zones.
- All Exploration activities are not considered by TH to be "low impact" and TH has requested from Yukon that there be new regulatory understandings implemented that accurately reflect the TH Final Agreement.
- Access Management is a critical issue. TH supports a comprehensive access management plan that will reduce habitat fragmentation and other negative cumulative effects.

Road access is rarely temporary. According to TH, sometimes new road or trail access is appropriate, and sometimes it is not (for example, if it leads to habitat fragmentation or if it expands access to sensitive heritage areas or to harvest areas which cannot sustain an elevated harvest).

It must again be noted that the Land Use Plan needs to be a long-term plan. Access methods for development are expected to continue to change in the coming decades – fuel costs will be higher and new technologies, such as the helium dirigible, are expected to mature and be available to development proponents. The DRPC should provide for a comprehensive access management plan that is adaptive to new and changing realities.

- TH agrees with the threshold approach for certain activities – multiple quartz mines, for example, may need to be phased in – some projects may need to wait according to access management thresholds and/or other considerations, including social considerations – this will also allow future generations to reap the benefits.
- Complimentary land uses have the potential to reduce conflict and maximize benefit through the orderly phasing in of certain activities. For example, forestry, mining, and agriculture could occur in succession in certain areas.

## **Climate Change**

### Interests:

- TH is interested in mitigating and adapting to the reality of the planet's changing climate. Decisions about land use planning must consider climate change both in an adaptation context as well as from the perspective of mitigation.
- Residents in Canada's North for obvious reasons such as temperature and travel distances are high per-capita emitters of climate-changing gases. Many developments also contribute to climate change through their activities, including the use of heavy equipment that consume large quantities of petroleum hydrocarbon, or from the stripping of the vegetative layer and its release of methane gas, a powerful greenhouse gas.
- It is at the landscape planning context of Land Use Planning that decisions can be made relating to how the Dawson Region will respond to climate change, by virtue of adapting but also in terms of better planning and managing the Dawson region's activities that contribute to climate change.

### Issues:

- A carbon model estimate or detailed inventory is required to assess the region's carbon contribution/sequestration.
- Proper forest planning will allow continued sustainable harvest while preserving an adequate level of sequestering ability from the forest. The Canadian Boreal Initiative endorsed by many companies and scientists has called for the protection of 50% of the boreal forest in Canada and TH is interested in adopting this level of forest protection. (Please note that boreal forest protection does not necessarily mean protection of any particular area from development activities, but instead considers the entirety of the region when making adaptive planning decisions)

## **Forestry**

- A draft Forest Resource Management Plan is close to adoption for the Dawson region.
- Timber harvest is a desired and sustainable industry for the region as long as it is done at a sustainable level that neither depletes the viability of the resource nor impacts other non-timber forest resources and the simultaneous harvest of flora and fauna.

## **Agriculture**

- TH supports the expansion of agriculture in the Dawson for employment and self-sufficiency in appropriately zoned sub-regions.
- Organic agriculture methods that reduce dependency on imported chemical fertilizers should be encouraged in the Dawson region.
- The Dawson region has the best growing conditions in the Yukon. Agriculture should be considered not only for the local market but for the larger Yukon and Alaska markets as well.

#### **Cumulative Effects and Project-Specific Assessment under YESAA**

- With the increasing development in the planning area, the potential for cumulative effects on the land and its resources, wildlife and fish escalate. To date, there are efforts to collect baseline information in the White Gold area but little is being done elsewhere in the planning region.
- TH is committed to the YESAA process but it is limited in its ability to properly deal with cumulative effects. It is a project-centric assessment regime, and trying to deal with cumulative effects is not only challenging, but also places a large burden on project proponents to understand and characterize cumulative effects from other similar projects. Land Use Planning is well-known to be a complementary land management tool that is better suited to understand and manage cumulative effects.
- Provisions under Sections 102-109 of YESAA for the strategic assessment of Plans have not been used to date and may wish to be considered for the DRLUP.

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For additional information on this submission please contact Bill Kendrick, TH Land and Resources Manager, at (867) 993-7105 or [bill.kendrick@gov.trondek.com](mailto:bill.kendrick@gov.trondek.com)

## Appendix “C” - Public Submissions



## **Dawson Regional Planning Commission**

Moving Forward • Nän kää ndä tr'ädä

September 8, 2011

### Re: Issues and Interests – Dawson Regional Land Use Plan

Thank you for your submission.

The Commission will carefully consider all submissions, as well as issues raised during the community meetings, as they prepare an Interest and Issues Report for the Dawson Planning Region. It is anticipated that this report will be published in October. Following this report, the Commission will move forward with preparation of a Resource Assessment Report.

The Commission has indicated they will continue to receive input and comments throughout the process. I encourage you to bring any additional issues to their attention as they arise during the process.

Regards,

Scott Casselman  
Chair  
Dawson Regional Planning Commission



August 26, 2011

Scott Casselman  
Chair, Dawson Regional Planning Commission  
PO Box 8010  
Dawson City, Yukon Y0B 1G0

**Re: Yukon Chamber of Mines and KPMA Submission of Issues and Interests**

Dear Mr. Casselman,

Attached, please find the joint issues and interests submission of the Yukon Chamber of Mines and the Klondike Placer Miners' Association for the Dawson Regional Land Use Plan.

The Yukon Chamber of Mines and the Klondike Placer Miners' Association represent over 500 industry members and offer a combined and experienced voice for the mining, exploration, service and supply and placer industries that collectively spans almost 120 years.

The Dawson region is of significant interest to all of our members.

To this end, we look forward to working with the Dawson Regional Planning Commission to ensure a fair and balanced land use planning process that allows for the continued growth and sustainability of the Yukon economy - one in which our members - and all Yukon residents - can contribute to and prosper.

Thank you for the opportunity to provide preliminary input on the issues and interests in the region.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Kokiw".

Michael Kokiw  
Executive Director  
Yukon Chamber of Mines  
[ed@yukonminers.ca](mailto:ed@yukonminers.ca)  
867.667.2090

A handwritten signature in black ink, appearing to read "Scott Kent".

Scott Kent  
Executive Director  
Klondike Placer Miners' Association  
[kent@northwestel.net](mailto:kent@northwestel.net)  
867.667.2267

RECEIVED AUG 26 2011



August 25, 2011

Re: Yukon Chamber of Mines and Klondike Placer Miners' Association  
Submission: Interests and Issues - Dawson Regional Land Use Plan

## Overview

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The Yukon Chamber of Mines (YCM) and the Klondike Placer Miners' Association (KPMA) thank the Dawson Regional Planning Commission for the opportunity to express the preliminary interests and issues of the Yukon Chamber of Mines, the KPMA and their members regarding to the Dawson Regional Land Use Planning process.

The YCM represents a dynamic membership and since its creation almost 70 years ago, has worked to serve its valued members and advance the interests of all those involved in the Yukon mining industry.

Membership has burgeoned over the years from a dozen founding members in 1943 to more than 400 today. This strong and diverse group includes exploration, mining and service and supply companies, contractors and individuals that have a direct or indirect interest in the mining industry.

In 2010, Yukon mining and exploration directly contributed over \$200 million to the territory's economy, while providing jobs, training opportunities and positive social impacts - particularly in Yukon rural communities.

Significant discoveries, newly opened mines and a commitment to responsibility place the Yukon at the forefront of the mining industry.

As the trusted voice of mining, the YCM thrives on the government, community, First Nation and individual partnerships it forges to help facilitate an environment of responsible development - one in which its members can continue to contribute to.

The KPMA was established in 1974 by 56 placer miners whom gathered in Dawson City to promote and protect the interests of their industry.

Since that time, the KPMA has flourished and includes almost 100 family-owned and operated placer mines across several regions of the territory. It is a member-driven, non-profit advocacy group that continues to advance the Yukon's placer mining industry on all fronts.

The Dawson Regional Land Use Plan will have significant implications for the development of the mineral industry in the region. The YCM, KPMA and their members support an approach to mineral development in the Dawson region that balances economic benefits, environmental protection and the interests of all Yukon residents and society at large. We acknowledge the important role of land use planning in achieving a balanced approach and we intend to actively support the process

## Generating Benefits

Currently there is considerable activity and interest in the Dawson region related to quartz exploration. Additionally, the region has significant historical and continued interest and activity in the placer mining industry. The quartz and placer mining sectors provide direct and indirect (i.e. spinoff) economic benefits to Yukon residents and the territory as a whole. Arguably, no other industry in the Yukon has the potential to generate as much wealth for Yukoners.

In addition to the jobs and wealth directly created by the industry, significant economic benefits are realized by the numerous local and/or Yukon based businesses and individuals that support these industries including, but not limited to:

- Expediting Companies
- Fuel Suppliers
- Grocery Suppliers
- Environmental Consulting Companies
- Airline and Air Charter Companies
- Car/Truck Rental Companies
- Hotels and Restaurants
- Hardware and Lumber Suppliers
- Construction Companies
- Engineering and Surveying Companies
- Heavy Equipment and Parts Suppliers

Much of the investment required to undertake mineral exploration programs comes from outside the Yukon, but a substantial amount of the resulting value is accruing to Yukoners and Yukon businesses.

## A Regulated Industry

Mineral exploration and mining is a highly regulated industry in the Yukon. The sector is subject to legislation designed to ensure the proposed activity will not result in long-term harmful impacts to the environment. The regulatory system affords a high level of protection to the environment while allowing the industry to develop. Acts and regulations that govern mineral development include, but are not limited to:

- *Yukon Environmental and Socio-economic Assessment Act*
- *Quartz Mining Act* and Quartz Mining Land Use Regulation
- *Placer Mining Act* and Placer Mining Land Use Regulation
- *Yukon Placer Secretariat*
- *Waters Act* and Waters Regulation
- *Fisheries Act* and Metal Mining Effluent Regulations
- *Territorial Lands Act* and Land Use Regulation
- *Yukon Environment Act*
- *Species at Risk Act*

One of the requirements of the land use planning process is that it be *linked to all other land and water planning and management processes established by Government and Yukon First Nations minimizing where practicable any overlap or redundancy between the land use process and those other processes.*

The YCM and the KPMA supports this objective and believes they can play an important role in ensuring the existing assessment and regulatory mechanisms for resource management applied to the industry are incorporated into all land use planning processes.

### **Mineral Development Interests**

Mineral development requires access to considerable tracts of land and water, as the mineral wealth of an area cannot be delineated until extensive exploration is conducted.

It is interesting to note that the extent of mineral wealth potential in the Dawson region has only recently been identified as a result of developments in exploration technology. Still, there may be more resource potential that has not yet been uncovered.

The intensity of land/resource use required depends on the stage of exploration or development and *not all land that is explored will be turned into a mine.* Although there is substantial exploration currently underway in the Dawson region, this will not likely translate directly into the establishment of numerous mines in the area. A significant exploration effort is required for each resulting mine developed.

Once a significant resource is identified the feasibility to develop an operation and extract the mineral and transport it to processing facilities may rely heavily on having or being able to develop road and/or power-line access to the site. Therefore it will be important that large land areas with mineral potential are not isolated from existing road and power-line infrastructure as a result of the planning process. Placer mining is a well-established industry in the Dawson region. It is critical that the existing rights and interests of placer miners, including further development of the industry, be taken into consideration in the land use planning process.

### **Closing**

The Yukon Chamber of Mines and the Klondike Placer Miners' Association appreciates the opportunity to provide preliminary input to the Dawson Regional Planning Commission on the issues and interests of the mineral industry in the Dawson region.

We look forward to working with the Commission and stakeholders on developing the Dawson Region Land Use Plan.

Scott Casselman  
Dawson Regional Planning Commission  
PO Box 8010  
Dawson City  
Yukon Y0B 1G0

Dear Mr. Casselman:

RE: Dawson Regional Planning Commission

I am a placer miner in the Dawson Region and want to provide you with my issues and concerns with the upcoming Dawson Regional Planning Commission. The most important issue for placer miners is access to new ground. Only a tiny percentage of the Dawson area's streams are affected by placer mining, but it is critical that a large amount of land available for placer mining and exploration remains open to us as an industry. We must be able to explore over large areas to find the small rare areas suitable for placer mining. We also require the ability to access these properties by road or water throughout the year.

Placer mining has been on-going in the Dawson area since the 1860's and has been a mainstay of our economy and culture. There are over 100 family based placer mines in the Yukon Territory and we are often referred to as the 'Family Farms of the North.' Every year there is over \$50 million worth of placer gold harvested from Yukon placer mines and we have a much bigger impact on the Yukon Economy.

The industry provides hundreds of direct jobs and supports a number of service and supply sectors such as fuel wholesalers, heavy equipment suppliers and grocery suppliers. Much of that economic benefit flows directly to businesses operating in Dawson City. Placer miners live in and/or frequently stay in the Yukon and Dawson City. We use many of the services including stores, hotels and restaurants. This helps support the local communities and other sectors such as tourism facilities

Placer mining is already heavily regulated including water license, placer land use, environmental act, public health and various other permits. Yukon placer mines use only water and gravity to recover gold. Harmful chemicals – such as mercury or cyanide – are not used in placer gold recovery. A comprehensive mining and reclamation plan must be approved before any license or permit is issued and reclamation is mandatory. All placer mines are inspected regularly for compliance.

Excavated areas must be smoothed and left in a condition amenable to natural re-vegetation. Silt is settled in ponds prior to release to the environment. Silt collected in ponds re-vegetates rapidly - usually with willow growth that provides valuable food for moose. Some ponds remain as wetlands and provide great habitat for migrating water fowl.

One of the most important issues for the industry is access to new ground that is economic for placer mining. Only a tiny percentage of the Dawson area's streams are affected by placer mining, but it is critical that a large amount of land available for placer mining and exploration remains open to us as an industry. We have to be able to explore over large areas to find the rare valuable areas suitable for placer mining.

In order for the projects to be sustainable we also require the ability to access these properties by road or water throughout the year. Transportation corridors are vitally important to allow access to these areas for exploration and mining. We want to be able continue to contribute to the economy and culture of the Dawson area and continue to provide employment for the next generation of Yukoners.

At the end of this submission you will find a brief survey that explains my personal connection to placer mining.

Form letters were recieved from 20 individual respondants.

A list of respondants is attached.

For a summary of the Placer Miners Questionnaire,  
please visit

<http://dawson.planyukon.ca>

Steven T. Osborne  
64 Eagle Creek Trail  
Whitefish, Montana 59937  
USA

Dietmar Gritzka  
Box 354  
Dawson City, Yukon  
Y0B 1G0

Arthur and Noreen Sailer  
Box 39  
Dawson City, Yukon  
Y0B 1G0

Gay Berg  
Box 1170  
Marsh Lake, Yukon  
Y0B 1Y1

Lee Olynyk  
Box 531  
Dawson City, Yukon  
Y0B 1G0

Chris Doumitt  
17073 Reverance Ave  
Sandy, Oregon 97055  
USA

Charlie Brown  
Box 1170  
Marsh Lake, Yukon  
Y0B 1Y1

Kelly Thompson  
9 Bates Cres  
Whitehorse, Yukon  
Y1A 4T8

David Millar  
Box 738  
Dawson City, Yukon  
Y0B 1G0  
Sylvain Fleurant  
Box 404  
Dawson City, Yukon  
Y0B 1G0

Janet Helton  
Box 20151  
Whitehorse, Yukon  
Y1A 7A2

Karl Knutson  
Box 685  
Dawson City, Yukon  
Y0B 1G0

Bernard Johnson  
Box 408  
Dawson City, Yukon  
Y0B 1G0

Marcel Dulac  
Box 5438  
Haines Junction, Yukon  
Y0B 1L0

Grant Allan  
Box 31486  
Whitehorse, Yukon  
Y1A 6K8

Martin Knutson  
Box 685  
Dawson City, Yukon  
Y0B 1G0

Jim Christie  
Box 669  
Dawson City, Yukon  
Y0B 1G0

D.R. Davis  
Box 304 -211 Elliot St.  
Whitehorse, Yukon  
Y1A 2A1

Sylvia Morris  
Box 628  
Dawson City, Yukon  
Y0B 1G0

John Alton  
Box 628  
Dawson City, Yukon  
Y0B 1G0

Scott Herron  
Northern Ecosystem Specialist  
Environment Canada – Canadian Wildlife Service  
91780 Alaska Highway  
Whitehorse, YT Y1A 5B7

Dawson Regional Planning Commission  
Box 8010  
Dawson City, YT Y0B 1G0

August 24, 2011

**Re: Canadian Wildlife Service issues and interests for the Dawson Land Use Planning Region**

Dear members and staff of the Dawson Regional Planning Commission;

Environment Canada's Canadian Wildlife Service's (CWS) welcomes the opportunity to contribute to the development of a recommended land use plan for the Dawson region. CWS considers a well developed regional land use plan to be a highly appropriate and effective approach to balancing environmental, economic, social, and community values. It is CWS Yukon's opinion that regional land use planning is the appropriate scale and vehicle for the management of cumulative environmental affects as it allows communities to make decisions regarding environmental and socio-economic tradeoffs. A well developed and informed regional land use plan can be an important foundation to adapting ecological and economic management in response to large scale processes such as climate change.

The legislated CWS mandates relevant to our issues and interests in Dawson Regional Land Use Planning are:

- The protection and conservation of migratory birds and their nests (*Migratory Birds Convention Act*, 1994);
- Administration of the federal *Species at Risk Act* (2002) in regards to non-aquatic species, and species not occurring within a national park;
- International commitments made under the 1992 United Nations *Convention on Biological Diversity*, of which Canada was the first signatory. Canada ratified the

Convention in 1992. Canada (1995) and Yukon (1996) are both signatories to the *Canadian Biodiversity Strategy*.

### **Migratory Birds**

Under the 1916 Canada/US *Migratory Birds Convention* (MBC), and the 1994 *Migratory Birds Convention Act* (MBCA) Canada is committed to long term conservation of migratory birds. Migratory birds under the Convention are defined in CWS Occasional Paper Number 1 (see appendix 1). Essentially migratory birds under federal jurisdiction regularly occurring in the Dawson planning region are all bird species with the exception of: raptors (hawks, eagles, owls); corvids (jays, ravens, crows, blackbirds, magpies); grouse and ptarmigan. Species not under federal jurisdiction are the responsibility of the Yukon government.

CWS Yukon has recently completed a Draft *Technical Plan for the North-western Interior Forest Bird Conservation Region (BCR 4) within Canada*. The Dawson planning region is located centrally within BCR 4. The BCR 4 plan is one of a Canada-wide series of plans produced concurrently, with standardized methods. Using a standardized approach, the plan assessed threats to birds within BCR 4 and identified 8 priority species that faced threats of a high magnitude. The BCR 4 plan identified one bird habitat type with a high threat magnitude (wetland), and 6 bird habitat types with a medium threat magnitude (coniferous, shrub/early successional, herbaceous, lichens/moss, bare areas, water bodies).

A unique, and high value element associated with the Dawson planning region is the Tinitina Trench flyway which bisects the region north-west/south-east. The Tintina Trench flyway is a continentally significant migration route for waterfowl, cranes, raptors and a variety of other bird species.

### **Species at Risk**

The Dawson region is thought to support populations of species considered to be of conservation concern. Of the non-aquatic species, these include 5 species of plants, 12 species of birds, 4 species of mammals, and 2 species of insects. Of these species, 5 are currently listed on Schedule 1 of the *Species at Risk Act* (SARA); while the other species are at various stages in the assessment process.

CWS staff conducted a series of Yukon River based surveys for at risk plant species that included the Dawson region.

## Biodiversity

The Convention on Biological Diversity is a legally binding international treaty, which obliges signatory countries to use biological resources in a sustainable manner. Goal 1 of the Canadian Biodiversity Strategy: Ecological Planning and Management, includes a number of strategic directions potentially relevant to the land use planning process.

These include:

- 1.1 “Use ecological planning and management approaches with more emphasis on landscape/waterscape-level planning to integrate economic and social objectives with biodiversity conservation principles”;
- 1.2 “Conserve ecosystems and critical habitats to support populations of wild flora and fauna and other wild organisms”;
- 1.5 “Re-connect fragmented ecosystems where practical and necessary, providing corridors and protecting habitats for isolated species or populations”;
- 1.9 “Develop indicators to monitor trends and support the management of wild populations, species, habitats, and ecosystems”;
- 1.11 “Foster the participation of non-government ex situ conservation experts and institutions in in situ conservation efforts, and improve the participation of government agencies in non-government ex situ conservation efforts”;
- 1.12 “Implement mechanisms to conserve and use in a sustainable manner transboundary native wild populations, species, habitats and ecosystems in cooperation with other countries and organizations”.

Although CWS Yukon was not directly involved in the development of the *Draft Dawson Forest Management Plan* there are strategic considerations and directions recommended in the plan that CWS supports as being fundamental elements to the maintenance of biodiversity not only in the context of forest management and planning, but are relevant to regional planning in general. Examples include:

- 5.1.1.2 “Utilize riparian buffers guidelines and manage buffer harvesting adaptively”;
- 5.2.4 “Utilize riparian areas, landscape features and natural disturbance patterns to manage connectivity across the landscape”;
- 5.7 “Incorporate access management into development planning. The primary objective is to minimize long-term access”;
- 5.7 “When possible utilize existing access and integrate with other forest land users (e.g. mining sector, tourism)”.

The *Draft Dawson Forest Management Plan* divides the forest planning region into 17 different Landscape Units using physiographic boundaries, such as watershed sub-basins boundaries and forest productivity conditions. Although CWS Yukon was not involved in delineating these boundaries, we would encourage the Commission to utilize

existing landscape management boundaries where possible to minimize administrative confusion.

### **Summary of Issues and Interests**

The primary issues and interests that CWS would like to bring to the Dawson Regional Planning Commissions attention are:

- The conservation and protection of migratory bird habitat and biodiversity values associated with wetlands and lakes through the establishment of adequate riparian protection and management zones applicable to all industries and development activities. Of highest concern to CWS is the protection and conservation of wetland and lake habitat within the Tintina Trench flyway during the spring and fall migration periods. When establishing riparian management and protection zones around wetlands and lakes, consideration should be given to establishing riparian management that encompasses wetland and lake complexes. The establishment of riparian management and protection zones around wetlands and lakes should consider how these will contribute to the protection of movement corridors and landscape level linkages.
- The conservation and protection of migratory bird habitat and biodiversity values associated with the riparian areas of large rivers, and streams through the establishment of riparian protection and management zones applicable to all industries and development activities. The establishment of riparian management and protection zones around wetlands and lakes should consider how these will contribute to the protection of movement corridors and landscape level linkages.
- It should be noted that as the southern Boreal Cordillera Ecozone portion of the Dawson planning region was largely unglaciated, most wetland complexes occur within the riparian zone of major rivers. These areas are considered to not represent high ecological value, movement corridors, and landscape connectivity; but also would likely be the location of new access for transportation. This has already occurred in the area around the confluence, and south, of the Yukon and Stewart Rivers. Special attention should be focused on the development of recommendations and strategies to maintain the ecological integrity of these areas while recognizing socio-economic considerations and values.
- Identification and conservation of wetland/lake complexes associated with mature spruce forest; in particular lowland mature spruce forest that experiences natural disturbances at a less frequent interval. This will contribute to the maintenance of migratory bird habitat, and biodiversity values.
- Development of a strategy to manage existing and new access particularly in riparian zones.

- Identification of areas supporting populations of species of conservation concern, and development of recommendations to protect at risk populations.
- A coarse filter approach should be used early in the planning process to identify key areas of overlapping ecological and cultural values (e.g. caribou wintering habitat, with species of concern, important migratory bird habitat, cultural/heritage areas). In particular areas which have high ecological/cultural/heritage values but do not have high development values should be identified.

CWS and I in particular look forward to any opportunities to present our interests and issues in person to the members and staff of the Dawson Regional Planning Commission. We have already conducted a preliminary assessment of existing spatial data to identify the locations of high value to our areas of concern.

Regards,



Scott Herron  
Northern Ecosystem Specialist

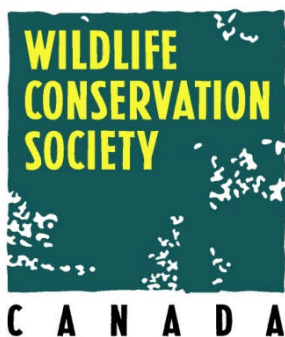
## **ISSUES and INTERESTS in the DAWSON REGION**

**Submission to the Dawson Regional Land Use Planning Process**

**By**

**Donald Reid, Wildlife Conservation Society Canada  
Whitehorse, Yukon**

**July 2011**



## INTRODUCTION

This document outlines the interest of Wildlife Conservation Society Canada (WCSC) in the lands and resources under consideration by the Dawson Regional Land Use Plan (DRLUP), and specifies the key issues that WCSC feels that the DRLUP needs to address.

## INTEREST

WCSC's interest is in conservation of all wildlife species (i.e. all biodiversity) and the natural habitats they require for the maintenance of robust wild populations, so that the material, aesthetic and spiritual values associated with wildlife can be realized by future generations. To explain this interest, it is worthwhile considering the nature of the wildlife and habitats in these northern boreal mountains in a historical context. Prior to European colonization, aboriginal peoples harvested certain wildlife, and influenced the distribution of habitats to some extent. Various processes, such as fire and flooding, also affected wildlife numbers and the locations and availability of their habitats. Ecological patterns on the land were far from static, and changes in weather patterns, forest conditions and wildlife populations were ongoing and frequent at various scales in time and space, some of them cyclic. Despite a low human population density, the land was fully occupied; various species had evolved to thrive in one or more of the sets of ecological conditions that presented themselves, even as these conditions varied locally.

Since colonization by industrial human society, some lands have changed to human habitats so that they are no longer very suitable as wildlife habitat. Other lands have lost or gained species after habitats have been modified, polluted or disturbed. These processes will continue to some extent with ongoing human activities. However, the challenge of land use planning, from a conservation point of view, is to find ways to minimize the risk of losing species, or more explicitly their habitats, as humans continue to live and work in the region. WCSC seeks a Plan that promotes and guides the locations and intensities of human activities so that all species and their habitats are sustained at ecologically meaningful scales in space and time.

The conservationist's tool box, in a land use planning context, specifically does not include the idea that all land uses can be accommodated on the same land base at the same time; many uses are mutually incompatible at numerous scales in time and space. Instead, the tool box includes land use zoning (ranging from zones with very limited human activities to those with intensive human activities), thresholds on human activity in zones where various land uses are to be satisfied at the same time, and best management practices for human actions that can both harm and enhance wildlife populations and habitats.

WCSC has no specific interest in the Dawson Region land base arising from any ownership, tenure or investment. Our role is to speak for wildlife, who clearly have a vested interest in the land base, but who lack any specific voice at the land planning table.

## ISSUES

### The Wildlife Context - Beringia

The Dawson Planning Region is of particular interest from a wildlife and biodiversity point of view in that it largely falls within Beringia, the region that was not glaciated in the most recent Pleistocene glaciations. Consequently, it is known, and believed, to support an array of species that have Canadian distributions limited only to portions of Yukon (i.e. “endemic species”). This array of species is primarily plants and insects. Not only are their distributions quite restricted geographically, but they are frequently rare within those distributions because they are dependent on certain growing conditions (including specific host species in the case of some insects). Many Beringian mammals and birds, being more mobile or less habitat specific, have colonized other portions of Yukon and northern Canada after the retreat of the continental glaciers, so their distributions are not as restricted (e.g., arctic ground squirrel; Dall’s sheep).

Unfortunately we do not know the actual distributions of many of these Beringian plants and insects, and in some cases mammals (e.g., Yukon tiny shrew). Some are documented in part; most are still being mapped. One approach to dealing with this uncertainty is to create a land use zone with strong limits on human activities, covering an area where many such species may well exist (e.g., wide range of elevations, geologies, and habitat types). Such a zone could be a traditional protected area, such as an ecological reserve. A complementary approach is to provide a land management tool (e.g., site notation) that would provide local habitat protection once a population of a rare species is discovered. This would provide protection for a smaller, but still viable, area of a certain vegetation type required by the species of concern.

***Issue 1 (Beringian Biodiversity): How can we conserve a unique suite of Beringian wildlife species (biodiversity) in the Dawson Planning Region? How well do existing protected areas (e.g., Tombstone Territorial Park) achieve this objective? Where would the best additional reserve be located (e.g., adjacent to Yukon Charley Rivers National Preserve in Alaska)? How can the DRLUP promote and enhance the use and effectiveness of site notations, or other regulatory tools, for Beringian species conservation?***

#### **Land Use Zoning – Ecological Benchmarks**

Land Use Zoning is clearly a key tool for a land use plan to use in segregating incompatible uses, and within which to apply management prescriptions. From a conservation point of view, WCSC believes that a land use zone with the primary purpose of providing protected habitats for wildlife and ongoing ecological processes is a necessary cornerstone of a land use plan. The key purposes of such an “ecological benchmark” zone are: (i) to conserve a representative suite of species and ecological processes operating at appropriate scales as a source for colonization of areas more heavily impacted by humans, and (ii) as a control area in which to study and understand ecological processes in the absence of human impacts other than climate change. The best geographical framework for deciding where such a zone should be is the ecoregion classification of the Yukon Territorial government.

***Issue 2 (Ecological Benchmark Zones): Where can we locate representative ecological benchmark area(s) that have minimal human activity but that are also large enough to maintain most ecological processes? How good, spatially, is Tombstone Territorial Park in satisfying this objective?***

## **Yukon River Corridor**

The Yukon River flows through the centre of the Planning Region, and has been a key ecological, historic, economic and metaphorical artery for the Region and the Territory. This is the migration route, and rearing habitat, for salmon and other fish species that sustain various predators and bring ocean nutrients far inland. These fish have been central to human economies and cultures for a long time, and sustaining fish populations and habitats is a key societal goal at present (e.g., Yukon River Tribal). The River has been a key movement route and seasonal habitat (e.g., moose calving; raptor nesting; waterfowl staging) for many wildlife species and humans, all of whom take advantage of the higher productivity of shoreline and wetland ecosystems and the higher diversity of foods associated with these habitats. The long-standing locations of hunt and fish camps along the river are an ongoing reflection of this ecological wealth. In an industrial world the Yukon River has been one of the main routes for the movement of goods and people as they pursue trade, mineral and timber extraction, and tourism rewards. Historically the emphasis was more on industrial goods; today the emphasis is more on recreation, education and spiritual pursuit.

Given the overwhelming importance of the Yukon River valley to the Territory's ecology, history, and present-day economy, WCSC believes that the Yukon River Corridor deserves special zonation to conserve its ecological processes, conserve its historical legacy, and sustain its current recreational, educational and economic values. The Yukon River is a "heritage river" in the broadest sense of the term. If the Dawson RLUP takes the lead in designation of a Yukon River Corridor, this would provide a strong precedent for the conservation of these heritage values, and the strong economic returns they offer, in other planning regions.

The diversity of heritage values in the Yukon River Corridor presents a challenge within the vision of a single River Corridor Zone, and would require the emphasis of certain values in specific sub-zones. Although the Plan may not have jurisdiction over the river itself, it can influence activities on the water by directing land-based access to the water. The Plan can directly address land uses in the immediate river valley, including conservation of view-scapes (not allowing clearcut timber extraction or mining activities within view of the river), maintenance of wilderness recreational character (strong controls on road access; prescribed campsites with adequate human waste management), adequate integration of agricultural land use and wildlife habitat conservation where possible.

***Issue 3 (Yukon River corridor): How can we best conserve the diverse heritage values of the Yukon River Corridor, both for the legacy of this Region and the Territory as a whole? How can a Yukon River Corridor land use zone be designed and characterised to achieve this objective?***

## **Access Management**

Much of the DRLUP region will be zoned to allow ongoing resource extraction, as is presently the case. Resource extraction frequently requires new roads. New roads are problematic for wildlife because they provide new access for humans to hunt and fish, and to use motorized vehicles on the roads and on new trails build in association with the roads. As a result, big game and fish populations

nearly always decline when a new area is accessed, and animals can be alienated from using important habitats because of the disturbance from motorized vehicles.

The DRLUP can address this problem through general prescriptions for access management in all land use zones, including resource extraction zones. Such prescriptions could include: (i) exclusion of public access to new resource extraction roads by gating roads at public highway intersections and by manning these structures; (ii) direction to land management agencies, including the Yukon Environmental and Socio-economic Assessment Board (YESAB), to limit the number of access points (road intersections) to land use zones so that all routes funnel through a small number of public highway intersections; (iii) requirement for de-activation of roads following closure of a resource tenure such as an operating mine; (iv) prohibitions on the development of new motorized vehicle trails and routes in certain zones; (v) promotion of the use of emerging technologies for backcountry access such as airships.

***Issue 4 (Access Management): WCSC urges the DRLUP to implement zone-specific controls, directions, and prescriptions for minimizing public access to wilderness wildlife habitats and the populations they sustain, so as to maintain the status and quality of those habitats and populations as much as possible in conjunction with resources extraction.***

Aug. 12, 2011

To: Dawson Land Use Planning Commission

From: Sebastian Jones, Yukon Conservation Society

**Re: Issues and Interests Submission, Dawson Land Use Plan**

Thank you for the opportunity to provide input into this very important Plan. We hope this will be but one of many submissions, as the use of the land in the Dawson region is of deep interest to residents and indeed many Yukoners and other Canadians. In the interest of clarity, I have highlighted our specific recommendations in **bold**.

It is always difficult to summarize the most important issues, as there will always be short term immediate issues related to current activities that may be seen to be less vital at a later date.

The Peel Watershed Planning Commission's Final recommended Plan makes it clear that the Peel Plan is not meant to be a template for future land use plans. Nonetheless, some aspects of both the Recommended Peel Plan and the North Yukon Plan do not need to be re-invented in the Dawson Plan.

For example, the Dawson Commission should use the PWPC's definition of sustainable development and adopt sustainable development as a core principle; the definition of sustainable development is drawn from the UFA:

*—beneficial socio-economic change that does not undermine the ecological and social systems upon which communities and societies are dependent.*

The ecosystem is the basis for a sustainable society and a sustainable economy.

Similarly, the Recommended Peel Plan's definitions of three types of activities and their relative sustainability are useful:

1. That which is sustainable indefinitely *if properly managed*. Trapping, fisheries, hunting and tourism are examples.
2. That which is not sustainable, but which ecosystems can tolerate or recover from. Some kinds of mining and oil and gas development are examples of this. Best management practices and effective restoration make this possible in some, but not all areas.
3. That which is not sustainable, and causes irreparable or unacceptable impacts on ecosystem integrity or communities and social systems.

Currently, there is unprecedented mining exploration taking place in the Dawson Region; there may have been more people involved during the Klondike era but modern tools and equipment and techniques have given us greatly expanded ability to impact land compared to the foot slogging Argonauts of yore.

The nature of mining is to be short-lived; once the deposits are exhausted, the activity ceases but the aftereffects can linger indefinitely. According to the 2008 Faro Mine Closure Plan, the mine at Faro will be undergoing a remediation and monitoring program for hundreds of years. It is not out of the question to suppose that there will be long term remediation and monitoring needed at new mine sites in the Dawson region.

- Roads: Overland access, particularly all-season roads, makes many deposits viable. Roads, however, mean access for more than the immediate mining operation; other people will use the roads and people have impacts, whether it is hunting or developing land for other uses. A road built for a superior deposit can enable other, more marginal deposits to become viable; while a benefit from a purely economic development perspective, this makes assessing the environmental impacts more complicated. Roads also directly affect fauna; wolves and other predators use roads much as humans do to access resources. The footprint of roads is much larger than their physical area and typically extends further temporally and spatially than initially expected.

- Mine footprints: The experience we gained at Faro, Clinton Creek, Mount Nansen and the Klondike Valley show that mining forever alters the landscape and wildlife and human activities will likewise be changed.

While part of the Planning Region has already been impacted by placer mining and may be considered as either industrial or post industrial, in the rest of the Region the human foot print is relatively modest: one small town, three highways and a few camps and a farm or two comprise the physical infrastructure. Again the footprint of these activities is greater than their immediate appearance. However, there are still extensive areas that are almost **untouched** except for limited trapping and hunting and gathering. These **areas should have a higher level of protection** than the already impacted areas.

A very special feature of the Dawson Region is the Yukon River; it is of importance as a prehistoric and historic transportation route and to this day supports fishing, commercial and residential river traffic and recreational travelers. These are important economic drivers and, properly managed, can be sustainable. The river is also ecologically important; the lush lowlands and islands of the valley bottom provide ideal moose nurseries, extensive stands of large trees, and the most productive agricultural land in Yukon.

The only known sites where the plant Spiked Saxifrage (*saxifrage spicata*) occurs in Canada were recently rediscovered in two small tributaries that are staked for placer mining. There are also numerous culturally important sites, indeed , according to the advice of an archeologist who was instrumental in gaining this status for “Painted on Rock” National Historic Site in Alberta, the inclusion of Dawson and the Yukon River Corridor as a candidate for UNESCO world heritage status would partially depend on the existence of a management plan for the Yukon River . For these reasons alone, a **Yukon River Corridor** should be recognized that would be a **Special Management Area**. Additional reasons to recognize the special status of the Yukon River will doubtless be brought up by other responders.

The land to the North of and adjacent to the Yukon River downstream of Dawson affords some of the most spectacular and accessible viewsapes anywhere in Yukon.

There are places where the Ogilvie Mountains tower directly from the banks of the Yukon, sheep, moose and caribou may be seen and major salmon spawning streams flow in from the North. Despite some limited mineral staking and exploration, most of this land is in a relatively natural state. It is the only home in the world to the Yukon's only unique species, the Ogilvie Mountain Lemming; it is the site of some of the best quality Dall Sheep lambing habitat in North Central Yukon and is in the range of both the 40 Mile and Porcupine Caribou herds. For these (and many other) reasons, the area of **land north of the Yukon and Twelve Mile Rivers** deserves a **higher level of protection. Areas adjacent to Tr'ondëk Hwëch'in lands and already established Parks (Tombstone, Yukon Charley) should be granted an even higher level of protection.**

Considering the level of development and interest already undertaken in the region, a **threshold approach** similar to that of the North Yukon should be considered.

Areas that are already highly impacted (e.g. lower Klondike, Indian and Sixty Mile Rivers), should be managed so that properly managed non-sustainable activities would be acceptable and the allowable cumulative effects limit would be higher, a lower threshold, while other areas (e.g. White River, North Klondike) would be managed to a higher threshold. The **Forty Mile River** is managed as a Wild and Scenic River in Alaska, at the very minimum; it should be managed equivalently in Canada. Subject to negotiation with the current placer claim holder the watershed should be **withdrawn from mining activity.**

A considerable number of mineral claims have been staked in the region over the past three years, history in Yukon shows us that once land is staked it presupposes its use and makes Land Use Planning even more challenging. For this reason, a page should be taken from the Peel playbook and **a staking and exploration moratorium** should be imposed in the parts of the planning region where protection is being considered, until the Plan is complete.

Some of the most important salmon spawning streams in Yukon flow into the Yukon in the Dawson Region, they are: Coal Creek, the Fifteen Mile, the Twelve Mile/ Chandindu

and the Klondike Rivers. In recent years, high powered jet boats have taken to hunting on these rivers. The use of jets over shallow spawning substrate has been shown to be detrimental to salmon redds and therefore the **use of jet boats on these rivers should be restricted**. The destruction of fish or fish habitat is of course regulated under the Fisheries Act.

Forest management and Land Use Planning. While there is a DRAFT forest resource Management Plan for the Dawson Region, it is still a draft and has not been promulgated into policy. The Commission is urged to treat it as though it is already in effect pending its final approval, expected during the development of the DLUP.

It is possible that one or more large mines will be developed south of Dawson, likely in association with the recently discovered White Gold, Coffee and other deposits. These operations will need access other than by fixed or rotary winged aircraft. The Commission should consider the **use of river barges rather than roads** if mines are developed. Roads tend to attract other users, thus have footprints larger than originally envisaged both spatially and temporally. Rivers, while they can be grievously injured by poorly designed transportation operations, have, given their dynamic nature, a better capacity to restore themselves once the operation ceases. The plan would need to examine potential impacts from barging, and propose ways to avoid them.

Thank you for considering this submission,

Sincerely,

A handwritten signature in cursive script that reads "Sebastian".

(Sebastian Jones)



Yukon Salmon Sub-Committee  
Box 31094 Whitehorse, YT Y1A 5P7 (867)-393-6725  
[www.yssc.ca](http://www.yssc.ca)

August 30, 2011

Dawson Regional Planning Commission  
PO Box 8010  
Yukon, YOB 1G0

To Whom It May Concern:

Please accept this letter as our submission for the Dawson Regional Planning Commission process.

The Yukon Salmon Sub-Committee (YSSC) is a non-governmental, public advisory body established under the Umbrella Final Agreement (UFA), which provides formal recommendations directly to the Minister of Fisheries and Oceans and to Yukon First Nations on all matters related to salmon and their habitat.

Chapter 16 of the UFA recognizes the YSSC as a sub-committee of the Yukon Fish & Wildlife board, and established it as the main instrument of salmon management in the Yukon. The Yukon River fishery itself is governed under the 1985 Pacific Salmon Treaty and the associated Yukon River Salmon Agreement (YRSA).

We would like the Dawson Regional Planning Commission to consider the following:

Chinook and Chum Salmon Interest:

- The overall importance of Chinook and Chum salmon in the planning region. There are a number of distinct salmon-related users including First Nations subsistence fishers, commercial fishers, domestic fishers, recreational and sport fishers.
- For thousands of years salmon has played an important role in meeting the food, cultural, social and ceremonial needs of Yukon First Nations.
- Yukon River salmon are a healthy choice and nutrient rich (i.e. loaded with heart-smart oils Omega 3).

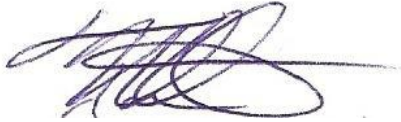
- The secondary benefits associated with Yukon River salmon are the wildlife viewing opportunities (especially spawning salmon), influence on Yukon arts and crafts (i.e. visual art, jewellery, story-telling) and general tourism related interest.
- Geographically, the Yukon River drainage extends broadly into the region, through the Yukon River main-stem and accompanying tributaries (including secondary creeks and streams).

#### Issues:

- The Yukon River Salmon Agreement of 2001 sets international treaty obligations. The Yukon River fishery is jointly managed by the US and Canadian governments with consistently set border escapement and harvest targets for Chinook and Chum salmon. A significant issue is the declining numbers of the Yukon River Chinook as a whole and the inability of the US to meet agreed upon escapement and harvest goals. The US has met their treaty obligations in only two of the last six seasons. This has resulted in fewer Canadian destination salmon reaching the spawning grounds. For example in 2010, the US harvested 180% of their agreed upon total allowable catch of Yukon River Chinook salmon. Canada continues to meet obligations in fisheries management and habitat protection/management and has been done at a significant cost economically and culturally.
- The low salmon runs are beginning to result in a loss of overall fishing capacity amongst the Yukon First Nations, commercial fishers and recreational anglers.
- Shifting baseline syndrome is beginning to take effect with the low numbers over the last decade becoming normal for the public and fisheries managers. There needs to be recognition of the historical numbers and the declining size of fish of this salmon run; not only the last few years.
- A specific issue within the planning region is the Holland America operated, *Yukon Queen II*. There have been concerns raised by Tr'ondek Hwech'in First Nation, commercial fishers and the Dawson RRC related to the entrainment of salmon, stranding of salmon from wave run-out, effects on salmon habitat and behavioural effects. The YESAB process is still active on this project and land use plans would be considered in any current assessment.
- Salmon issues often need to be considered on a site specific basis and protection occurs at a project level. Canada, through the Department of Fisheries and Oceans and Government of Yukon has specific management and enforcement regimes in place to protect and monitor salmon habitat. This regime is in place to mitigate potential effects as a result of "smaller scale" projects. The YSSC suggests that the Dawson Regional Planning Commission should focus on "large scale" projects that may have broad reaching impacts in the drainage area.
- Potentially negative effects on salmon habitat, particularly spawning habitat, from industrial development, hydro power generation, road access, and poor water quality.

We hope you will consider the interest in Yukon River Salmon and the issues in the development of the Dawson Region Land-Use plan.

Sincerely,

A handwritten signature in purple ink, appearing to read 'Tara Christie', with a stylized, cursive script.

Tara Christie, Chair – Yukon Salmon Sub-Committee

YUKON  
ENERGY



**YUKON ENERGY  
CORPORATION**

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WHITEHORSE  
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August 26, 2011.

Dawson Regional Planning Commission  
P. O. Box 8010  
Dawson City, Yukon  
Y0B 1G0

Dear Dawson Regional Planning Commission:

Thank you for providing Yukon Energy with the opportunity to identify our corporate interests within the planning area. As you may know, Yukon Energy Corporation's mandate is to generate, transmit and distribute a continuing and adequate supply of cost-effective and reliable energy for customers in the Yukon. We do this by focusing on innovation and partnerships, producing power and energy solutions and supporting customer requirements and economic development.

One of the technologies within the basket of clean energy options is hydro-electricity and for this reason, we feel it is important to make your Commission aware that there are several potential sites of interest for future hydro-electric projects within the Dawson Planning Region.

The North Fork hydro-electric project is one of several sites identified through the Land Claims Process. This project is identified as a specific provision in Chapter 7, Section 7.8 of the Tr'ondëk Hwëch'in Final Agreement. The terms for a land exchange between the Government and the Tr'ondëk Hwëch'in First Nation relating to this project are set out in Schedule B of Chapter 9.

In addition to this project, the Yukon Energy Corporation continues to maintain an interest in the potential development of hydro resources on several water bodies within the planning region including the Chandindu River, Rock Creek, Fifteen Mile River, North Klondike River, Forty Mile River, Yukon River, Indian River, Sixty Mile River, and the Stewart River

As the exact location of these sites is considered commercially sensitive information by Yukon Energy Corporation, we would prefer to identify general interests at this time. We are certainly open to meeting with your Commission members in the future to discuss potential project areas in more detail.

We look forward to continuing to participate in the planning process.

Sincerely,

A handwritten signature in black ink, appearing to read 'H. Campbell', written in a cursive style.

Hector Campbell  
Director, Resource Planning and Regulatory Affairs

## Appendix “D” – Community Meeting Minutes

DRPC - Dawson Community Meeting  
May 26, 2011  
KIAC Ballroom  
Summary by Jeff Hamm , Senior Planner

Commission members in attendance: Bill Bowie, Will Fellers, Scott Casselman  
Staff (TWG) in attendance: Ron Cruikshank (YLUPC), Jen Meurer(YG), Darren Taylor(TH), Jeff Hamm(DRPC).

Approximately 6 people from the community were present.

Mark Wickham of Across the River Consulting facilitated the meeting. Mark explained the purpose of the meeting was to inform the public about the process, respond to questions about the process, and to provide an opportunity for input on land use issues in the Dawson Planning Region. Mark then introduced the Commission members present. Each member was asked to provide some personal background, and Scott filled in with bios for those not present.

Ron Cruikshank provided an overview of the mandate of the Commission, with emphasis on the relationship of the Commission and the Plan to decision making.

Jeff Hamm presented the process for preparation of the Plan, identifying opportunities for public input and feedback throughout the process, and significant information products that will become available as the work proceeds.

Mark opened the floor to comments and questions from the public. A summary of questions and discussion follows, organized by theme.

### **Governance**

*Will a quorum of members be present at Community Meetings?*

It was agreed by the Commission at their April meeting that due to the difficulty of convening meetings during the summer, a quorum of Commission members would not be available for Community meetings. It was decided that these meetings should proceed in a timely fashion. All members would be apprised of comments and issues raised at Community meetings by way of a written report.

*How can the plan respond to policy change by Government?*

Good communication between the Parties and the Commission during Plan production is key to maintaining awareness and alignment with Government policy. The process needs to be well documented, so that it is possible to backtrack from Plan recommendations to underlying policy rationale. It is also desirable to periodically review the Plan to ensure it stays relevant and useful.

There are two Governments engaged in the process, each with its own policy focus. Chapter 11 provides objectives consistent with both Governments, which must be followed during all stages of the process.

### **First Nation Interests**

The Plan and the planning process must promote the cultural heritage of Tr'ondek Hwech'in(TH) and recognize that inherent rights to the use of land and resources by First Nations are constitutionally protected. Traditional knowledge and oral history about relationships to the land are important for maintaining traditions for future generations. Identification and protection of key wetland habitats is important to waterfowl, fish and wildlife populations and for maintenance of long-term water quality. Water quality, quantity and rates of flow are important issues. There is concern over the possibility of private ownership or exporting of clean water. At least one watershed should be protected from development to ensure a supply of clean water.

Salmon and salmon habitat is critically important. Measures to increase escapement, including closure of commercial fisheries for the first pulse of spawners, must be discussed with DFO and Alaska. Existing management plans for salmon conservation should be reviewed and included in the Plan. Key habitat for moose and sheep populations should be identified, particularly in the White Gold district, and protected from unsustainable development. Mitigative measures must be taken to protect sensitive habitats.

Previous plans, including the Fortymile Management Plan, Trochek Management Plan, Porcupine Caribou Management Plan and Forestry Management Plan should be considered in the Land Use Plan. The previous Klondike Regional Plan should be dusted off and reviewed as well.

TH also experience pressure from growth and economic activity and are in the process of planning for additional residential and commercial development. The DRPC should stay informed about this process.

### **Yukon Watershed**

Planning approaches should treat the Yukon watershed as its own entity, recognizing the need for special consideration of all of its tributaries. Portions of the watershed also have highly regarded vistas. Salmon are an important component of the system and need support from all corners of the community; ecological, cultural and economic. The same may be said of caribou. Long-established migratory patterns are under pressure and changes in these patterns are signals that need to be better understood.

### **Economic Activity**

The process should avoid setting up a conflict between economic and conservation interests. Opportunity and quality of life are both important to business owners and the all members of the local and Yukon community. "People have to make a living"; Jobs and the development of a local economy is preferable to reliance on government support. However, the current pace of development though is overwhelming community capacity, and measures to achieve a more sustainable rate of development should be considered.

## **Issues and Interests – Comments from Community Meetings (June 2011)**

### **Dawson City, Whse & Old Crow**

#### **Governance**

- Commission presence essential at community meetings
- Presentation at General Assembly would raise profile for Plan

#### **Decision Making**

- Impact of policy change with change of government
- Previous plans should be considered
  - Fortymile, Tochek, PCMP, DFMP
  - Klondike Valley Plan, Tombstone corridor plan
- Important to think ahead, anticipate change, make plans

#### **First Nation Land Claims**

- Constitutionally protected rights to access and use of land and resources
- Decision authority on settlement lands
- Purpose for land selections not clear
- Contiguous boundary between TH and VG should follow watershed

#### **Traditional Knowledge**

- Long oral history about relationships with land ; importance of maintaining FN culture for future generations
- Losing the elders with real “traditional knowledge” and time on the land

#### **Wetland and aquatic habitat**

- ID and protect for waterfowl, fish and wildlife populations
- Salmon habitat is critically important
- Harvest management to increase escapement

#### **Wildlife habitat**

- Key habitat for moose and sheep ID and protected, esp. near potential development areas (i.e. White Gold)
- Biodiversity of unglaciated terrain, lots of endemism, but distribution not known; how can new discovery be dealt with?
- Mitigation required to protect & restore habitat
- Staking moratorium on critical conservation areas?
- Critical habitat for grizzly bears and salmon (Fishing Branch)
- Access corridors (E-W) should not interfere with caribou migration (N-S), in vicinity of Miner and Whitestone Rivers
- Better fish information needed

#### **Watershed management**

- Maintain long term water quality, quantity and rates of flow
- Ownership / export of fresh water
- One protected watershed

#### **Landscape level processes**

- Salmon/caribou are important as ecosystem and economic components
- Vistas are highly regarded, Yukon R. an important travel corridor
- Response to climate change (mass wasting, permafrost melt)
- Cumulative effects indicators and thresholds

#### **Community Development**

- Availability of residential and commercial land
- Quality of Life dependent on both economic development and environmental conservation

#### Economic Development

- Access management, especially number and location of access points along existing routes
- Cumulative effects of development
- Group trapline?

#### Conservation areas

- Should be representative
- Not restricted to wetlands and lakes, other habitats require conservation as well.