



see **yourself** in the dawson regional land use plan

Give us your
feedback
on plan
alternatives!

Comments
accepted from
February 3 to
March 2, 2014



Dawson Regional
Planning Commission
Moving Forward • Nän kāk ndä trädä



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Section One

About Us

Dawson Planning Region – Vision and Goals



VISION STATEMENT

The Dawson Region is an ancient and uniquely unglaciated landscape, with an abundance of natural resources and a diverse cultural legacy that contributes to the well being of all Yukoners.

People have been and continue to be an integral part of the landscape, acting as stewards to protect natural values, and working together as a community to realize opportunities for well-balanced economic growth.

Shared and respectful use of resources contributes to a sustainable and self-supporting economy.

Ecological and cultural values are undiminished by the careful development of economic resources, ensuring healthy ecosystems and clean drinking water are enjoyed by future generations.

People engage in consensus building, working with purpose and in harmony to sustainably balance the environment, economy and quality of life.



GOALS

Economic Prosperity

People with a diversity of perspectives and interests engage in consensus building to realize and benefit from economic, ecological, social and cultural opportunities.

Active Management

Innovative and efficient methods for integrated management of natural resources contribute to an enhanced quality of life and a healthy ecosystem.

Equitable Balance

Economic, ecological, social, and cultural outcomes are considered in decision-making about land use.

Stewardship

All resources are used or conserved wisely to ensure benefits are enjoyed by future generations.



The Dawson Regional Planning Commission



who we are

The Dawson Regional Planning Commission was established in August 2010 under Chapter 11 of the Tr'ondëk Hwëch'in Final Agreement. It is an independent body with six Yukon community members, based on nominations received from the Parties (i.e., Government of Yukon and First Nations governments who have Traditional Territory within the planning region). The Parties for the Dawson plan are the Yukon, Tr'ondëk Hwëch'in, and Vuntut Gwitchin governments. Na-Cho Nyak Dun First Nation is not an official Party, but is an observer as per their overlap agreement with Tr'ondëk Hwëch'in. Appointments are made by the Yukon Minister of Energy, Mines and Resources based on nominations received from each of the Parties. Parties nominate people who they think have the skills, knowledge and experience to assist in developing a successful land use plan.

The members of the Dawson Regional Planning Commission are:



Debbie Nagano



Scott Casselman (Chair)



Roger Ellis



Chester Kelly



Will Fellers

vacant
position to be
filled early Feb
2014

In Memory: Steve Taylor, member from August 2010 - January 2013; Bill Bowie, member from August 2010 - August 2013

why we were created

The Umbrella Final Agreement (1993) envisioned a common land use planning process that would promote integrated management of land and resources. The Yukon was divided into planning regions, based mostly on First Nations Traditional Territories and watersheds.

Each signed First Nation Final Agreement contains Chapter 11 (Land Use Planning), where the governments agree to establish a Regional Land Use Planning Commission for that area. The objectives of Chapter 11, in part, are “to minimize...land use conflicts; to utilize the knowledge and experience of Yukon First Nations; and to ensure that social, cultural, economic and environmental policies are applied to the management, protection and use of land, water and resources in an integrated and coordinated manner so as to ensure Sustainable Development.”

The first regional plan to be completed was for the North Yukon, approved in 2009 and now being implemented; the second was for the Peel Watershed; and the Dawson plan is the third.

what we do

A land use plan represents a vision for the future use and development of land in the region, and provides direction to governments on how to manage land and resources. The plan is not enacted through legislation, does not replace existing legislation, and does not affect First Nation rights established under land claim agreements and constitutional law. A land use plan tries to balance protection of ecological and cultural values with development of the region's resources.

The Commission's job is to develop and present a Final Recommended Land Use Plan for this area to the Parties, after which the Commission dissolves. The Parties make the final decision on whether the plan is approved, modified, or rejected and the Parties are responsible for implementing the approved plan – Yukon government for public lands and First Nations for settlement lands.

The Dawson planning region covers about 46,000 sq. km in the northwestern part of the Yukon. The Commission cannot make recommendations about land that is within the City of Dawson municipal boundaries, land that is already managed under a Local Area Plan (e.g., West Dawson/Sunnydale), or existing protected areas (e.g., Tombstone Territorial Park). However, the Commission does consider these lands and any existing management plans when giving direction for the rest of the region.

who helps us

The Commission is supported by two permanent staff members, operating out of its Dawson City office since spring 2011.

The Parties have input throughout the planning process. Their technical staff work closely with Commission staff through the Technical Working Group (TWG). TWG helps to gather information on regional resources, reviews Commission products, and provides advice on government issues and policies that should be considered when developing plan options. The Parties are also represented by the Senior Liaison Committee (SLC), who provide the Commission with high-level policy advice and are the link between the Commission and the Ministers/Chiefs.

The Commission is also supported by the Yukon Land Use Planning Council (YLUPC). YLUPC was also created under Chapter 11 of the Umbrella Final Agreement, and is a three-person board with members nominated by Government of Yukon, Government of Canada and the Council of Yukon First Nations. YLUPC helps determine planning region boundaries, identifies priority planning areas, starts up new Commissions, and promotes regional land use planning in the Yukon. YLUPC staff also helps existing Commissions by administering funding agreements, providing planning expertise and technical support, participating on the TWG, and helping Parties coordinate their efforts. For more information on YLUPC, visit their website www.planyukon.ca.

who funds the Commission

Money for the Commission to do its work comes from funds agreed to under the Umbrella Final Agreement. The funding is provided by the Government of Canada and administered by Government of Yukon. Government of Yukon reviews and approves annual Commission workplans and budgets.

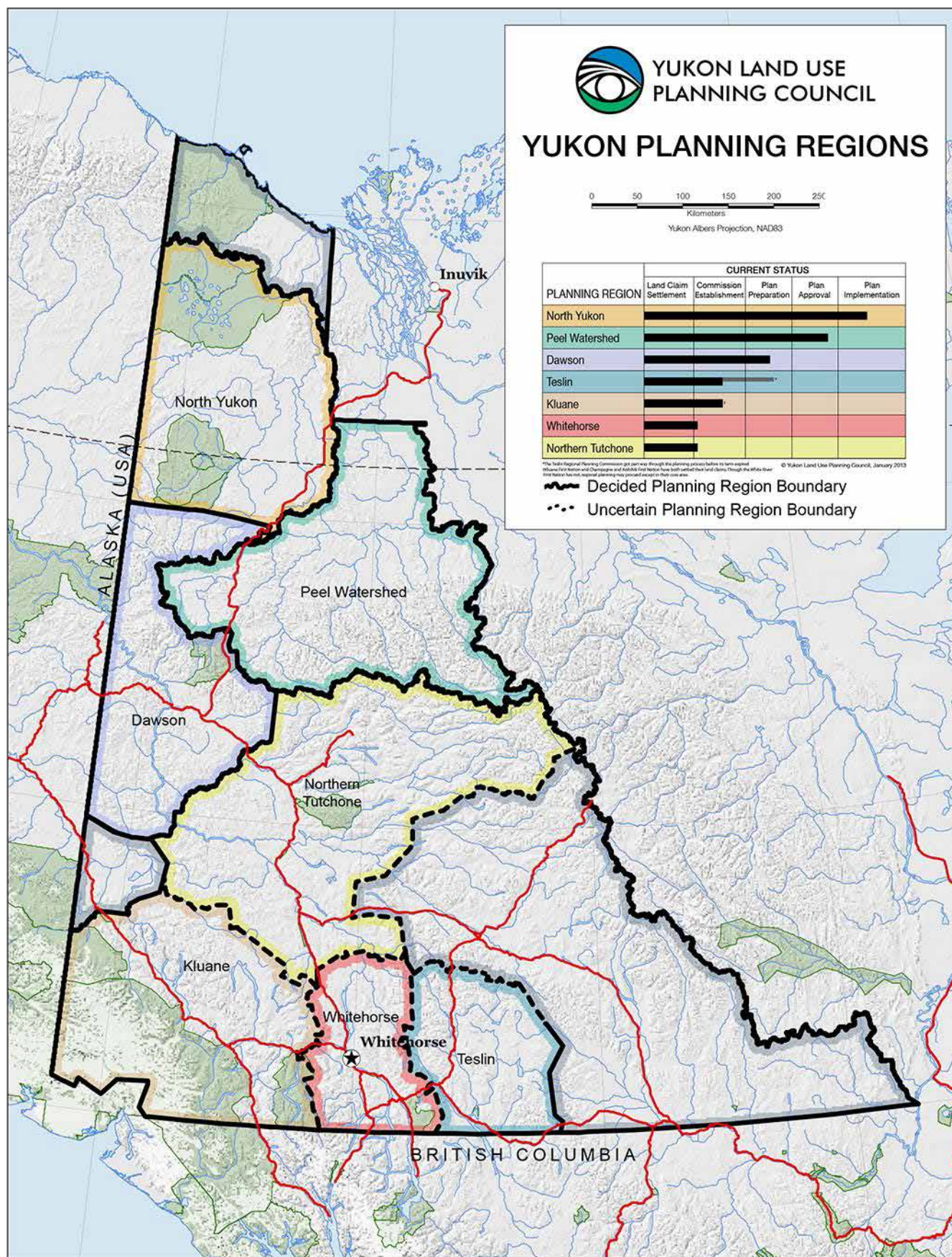
how to get involved

- Talk to the Commission members
- Drop by our Dawson City office and chat with the staff
- Check out our website for lots of background information, meeting minutes, and the latest updates
- Come to public meetings during important stages of the planning process
- Provide your comments on draft products

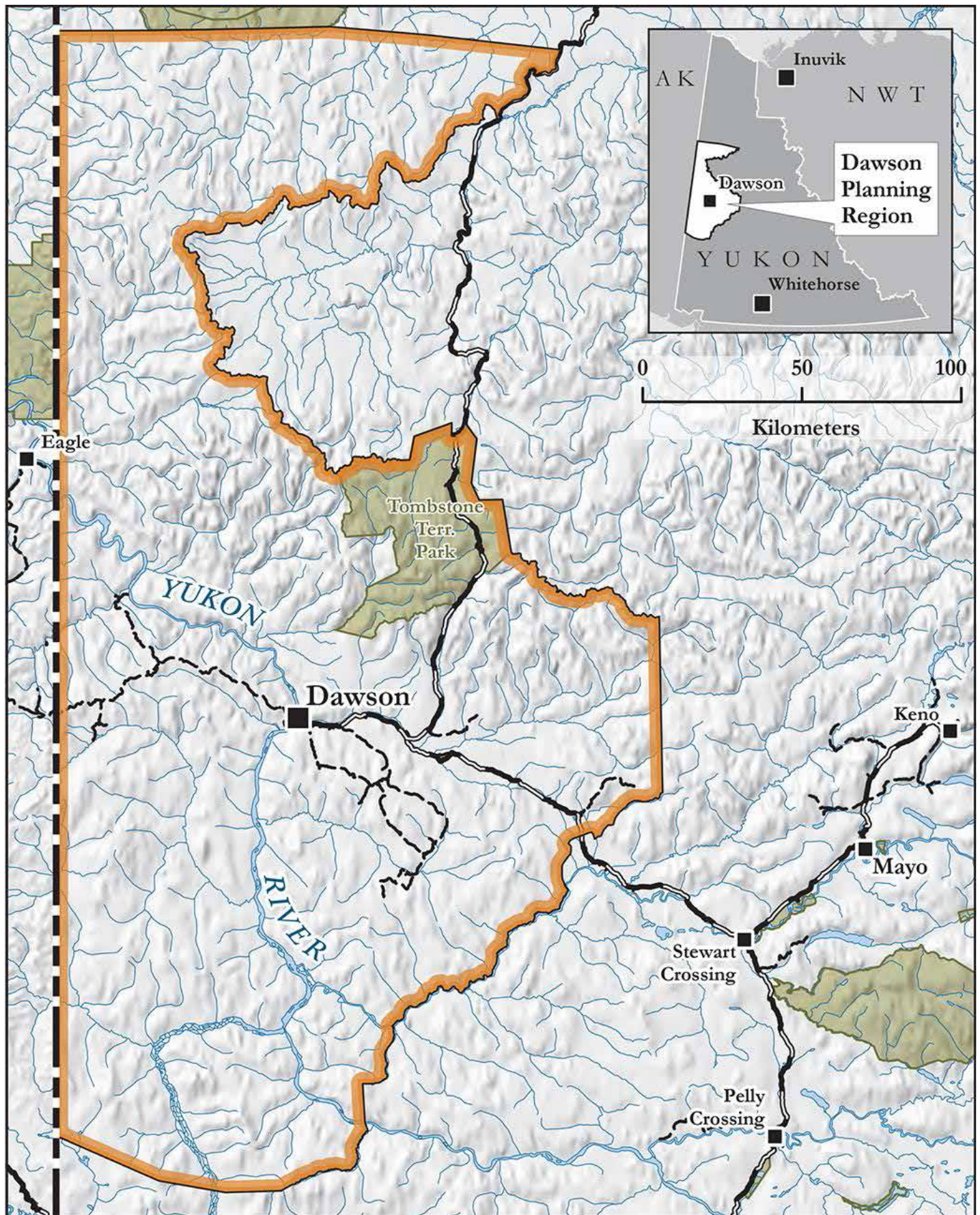
how to reach us

Our office is located at 1075-2nd Avenue (next to the hardware store)
PO Box 8010, Dawson YT, Y0B 1G0
Office hours: Mon to Fri 7:30 am – 3:30 pm
Phone: (867) 993-4400
Email: dawsonplan@planyukon.ca
Website: <http://dawson.planyukon.ca>

Yukon Planning Regions map



Dawson Planning Region map





Section Two

Where we have been and where we are going

Planning Process Overview

Aug 2010

Start Up

Member appointments, orientation, staffing, open Dawson office, and other administration

Information Gathering: Issues and Interests

Issues and Interests

Develop a vision statement and goals for the planning region (May 2012) based on *Issues and Interests Report*

Vision and Goals

Collect info from the Parties and public on regional interests and issues

- Public meetings (Dawson, Old Crow, Whitehorse)
- *Issues and Interests Report* (Dec 2011)

Information Gathering: Regional Resources and Planning Approaches

Regional Resources and Planning Approaches

Collect info on valued resources, produce summary maps and identify potential conflicts

- Planning conference (Dawson, Jan 2012)
- Commission field trip (Yukon River, Jul 2012)
- *Resource Assessment Report* (Oct 2013)

Feb 2014

Decision Framework

Introduce decision-making tools to Commission and engage Parties and public in clarifying plan goals and objectives

Plan Alternatives and Evaluation Criteria

- Public workshop (Dawson, Feb 2013)
- Stakeholder workshop and open house (Dawson, May 2013)

Draft Plan

Consider feedback, evaluate trade-offs, and select preferred alternative; identify priority areas for conservation and development; recommend management direction for region, specific areas and land use types, and implementation; present to Parties and public for feedback

- Draft Plan public review and feedback period (Apr 30 to Jun 30, 2014 proposed)

Recommended Plan

Refine evaluation criteria and zoning system; engage stakeholders in early options for alternatives; divide region into Landscape Management Units; develop range of possible options and present to Parties and public for review and feedback

- Stakeholder workshops (Jun and Dec 2013)
- Joint Technical Workshops (Sept and Dec 2013)
- Plan Alternatives rounds 1, 2 and 3 (Sept to Jan 2014)
- Plan Alternatives public review and feedback period (Feb 3 to Mar 2, 2014)

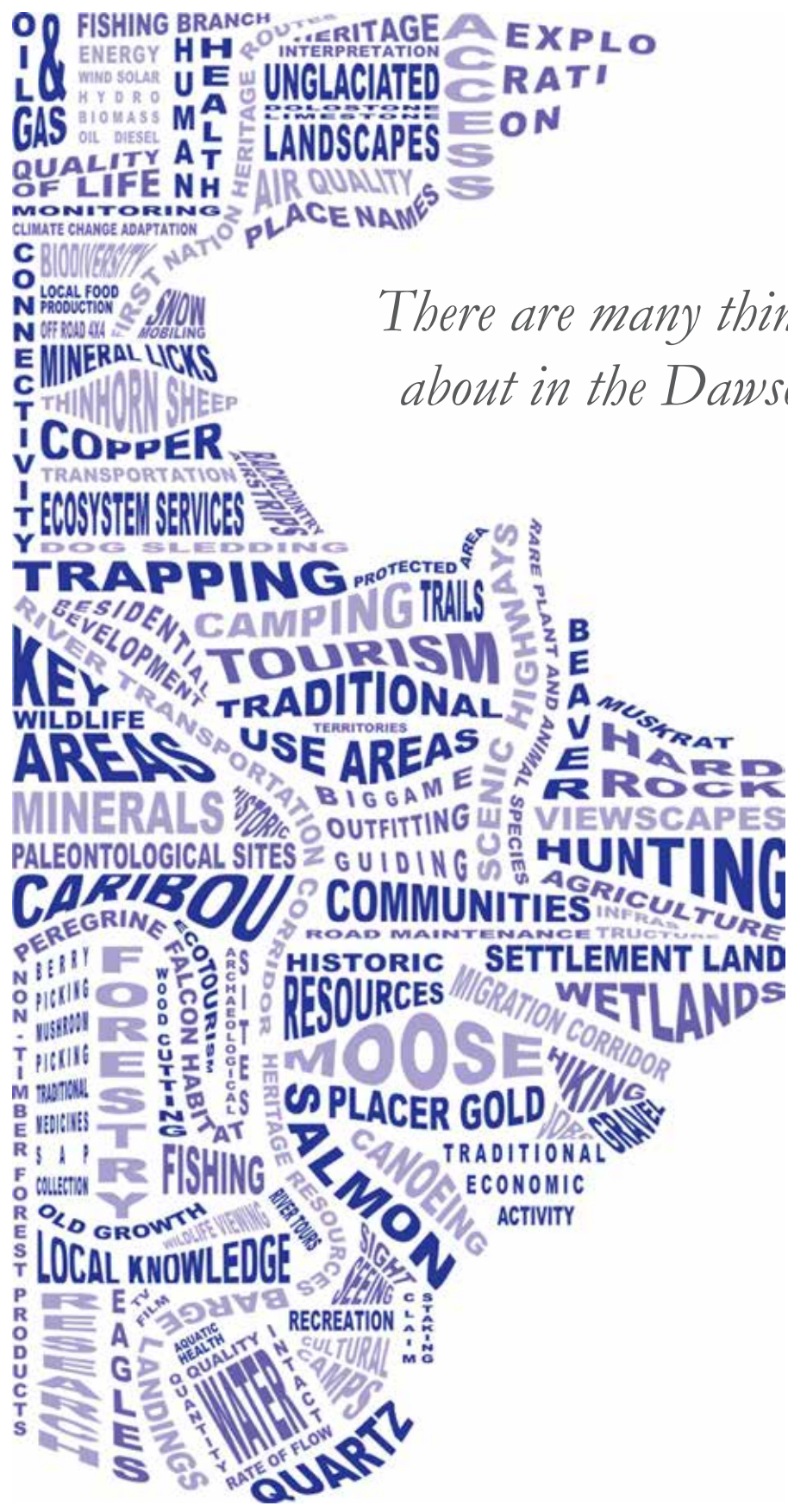
Final Recommended Plan

If one or more Parties do not approve the Recommended Plan, Commission will reconvene to revise and write Final Recommended Plan. Parties consultation and decision process repeats.

Consider feedback, make final revisions and present to Parties. Parties conduct consultations, then decide to approve, reject, or modify plan.

- Recommended Plan public release (Sept 19, 2014 proposed)
- Close Dawson office (Sept 30, 2014 proposed)

***Reports and meeting minutes are available on the DRPC website: dawson.plan yukon.ca**



There are many things to care about in the Dawson Region

Developing Plan Alternatives

What did we consider?



Developing Plan Alternatives: What did we consider (cont'd)

Scenarios vs. Alternatives

Previous regional planning processes in the Yukon have used the term “scenarios” for this phase of their work. By definition, scenarios are “*an imagined or projected sequence of events*”. For example, the North Yukon Regional Plan used a computer program called ALCES® to see what the effects on the landscape might be if there was a major oil and gas development in Eagle Plains. Climate change researchers also use scenarios when trying to predict what might happen if greenhouse gas emissions continue at their current levels.

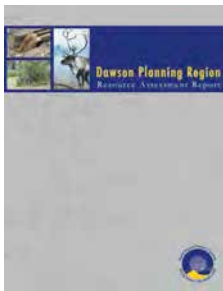


The Dawson Regional Planning Commission has chosen instead to use the term “alternatives”. An alternative is not a prediction of future outcomes but is, quite simply, a choice or an option to be considered. Each alternative represents a different potential land use future for the region – the choice of zones and management actions will have different impacts on the landscape and its many values. It is a different combination of choices and emphasis on priorities. Each option involves trade-offs and will have its strengths and weaknesses.

What goes into making plan alternatives? What did the Commission consider?

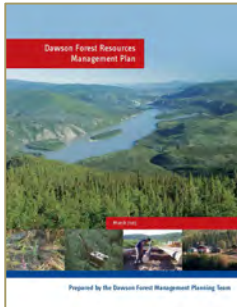
The following sections tell you about all the different information sources and tools we have used (all the jars of “ingredients” going into our big pot of plan alternatives), and how we have refined our work over the past year to create the five alternatives that you see in this package.

Resource Data



One of the most important documents the Commission has is the *Resource Assessment Report* and associated series of maps (completed in October 2013, available on the DRPC website). Information in this report came from the Parties, stakeholders and the public. It covers relevant laws and policies and has summaries of the region’s economy, community infrastructure, people, and existing land use. It talks about the geology, glacial history, climate, and ecosystems of the region and has detailed chapters on each of the following resource values: heritage, water, forests, fish and wildlife, minerals, energy, agriculture, tourism and recreation, and transportation and access (see **Appendix 1: Regional Resource Summary**). It also identifies areas of the region that are especially important to consider for conservation or protection. This report and the maps are very valuable for us to use in the rest of the planning process, especially when deciding how to zone a particular Land Management Unit.

Other Plans

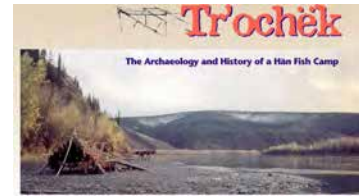


We have considered several other plans that have already been completed – for example, the *Dawson Forest Resources Management Plan* and *Tombstone Territorial Park Management Plan*.

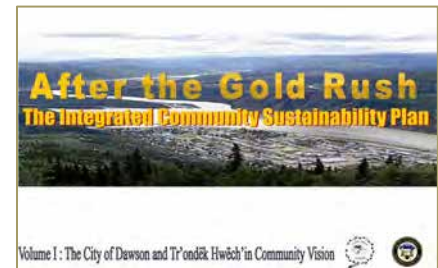


We have looked at plans and management strategies for adjacent protected areas (Fishing Branch Habitat Protection Area and Yukon-Charley Rivers National Preserve), important heritage sites, and certain species like the Fortymile caribou herd and Yukon River salmon. We also reviewed reports about potential climate change impacts and what that could mean for the region.

Even though the regional plan can't make recommendations for land within the municipal boundary of Dawson City, we know that what happens there is important for the rest of the region (and vice versa).



Local planning initiatives are also valuable because they describe what people think is important for the present and future of the Dawson area. So we have looked at the *Official Community Plan*, *Integrated Community Sustainability Plan*, and *Klondike Valley Regional Land Use Plan* and are keeping updated on other relevant issues (for example, future demand for residential land).



Technical Support

The Commission is supported by two permanent staff members in their Dawson City office: Monica Krieger (Acting Senior Planner) and Kathy Burden (Planning Technician), along with additional technical expertise on a contract basis when required. Jeff Hamm was the Senior Planner from early 2011 to November 2013.



Commission staff work together with staff of the Parties through the Technical Working Group (TWG), who meets regularly to discuss current work, review draft products and resolve issues. TWG members also have their own larger internal working groups, and sometimes they all get together to help the Commission or provide them with ideas to consider.

For example, there was a joint technical meeting of the Parties in December 2013. They talked about resource values and potential land use conflicts in the region, and how this could be addressed through different types of zones.



The Parties' technical staff also helped the Commission decide on some of the criteria that would be useful for evaluating alternatives (see **Section Four** of this package) through a series of workshops in September 2013.

The Commission gets policy-level advice from the Parties through the Senior Liaison Committee (SLC). If the plan is to be successful, it is very important to get input (throughout the whole process) from the governments who will eventually be responsible for approving and implementing it.

The Commission has listened to presentations on various planning topics such as: how to achieve conservation values in the working landscape; developing cumulative effects indicators and threshold levels; and important ecological areas in the Dawson region that would be priorities for conservation. Along with many others, we also participated in *"The Boom and Beyond"* conference (January 2012 in Dawson), where different planning approaches and frameworks were discussed.



Public Meetings

In spring 2011, community meetings were held in Dawson City, Whitehorse and Old Crow to gather information about issues and interests in the region. The *Issues & Interests Report* (December 2011, available on our website) identified four key themes that the Dawson plan should consider:

- Mineral exploration and mining as an important historical and modern industry
- Conservation of fish and wildlife habitat and the need to maintain a healthy ecosystem
- Defining a "workable balance" for sustainable development – balancing economic development with environmental protection
- Yukon River corridor – recognizing it is a key feature of the region and is important for many different reasons (habitat, transportation, heritage values, recreation, etc.)



A public planning workshop was held in February 2013 in Dawson. It focused on identifying goals and objectives for the region. Over 100 draft objectives and ways to measure them were suggested, as well as potential planning strategies (see **Section Four – Evaluating Plan Alternatives** to find out how this information was used). There was also a public session as part of the May 2013 stakeholder workshop. Summaries of these events are available on our website.

We have scheduled public meetings in Dawson and Whitehorse for February 2014 as part of this plan alternatives review period. There will be more public meetings in Dawson, Whitehorse and Old Crow during review of the Draft Plan. We value input from the public at all stages of the process.

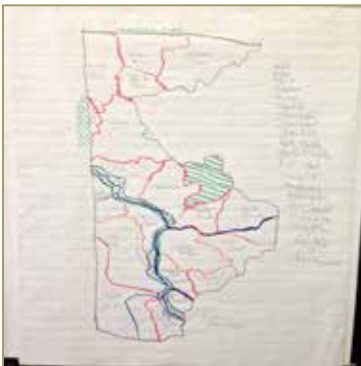
Stakeholder Workshops

In early 2013, a list of key stakeholder groups was created with input from the Parties. These are a variety of industry groups, conservation groups, resource management boards, recognized experts in their field, and local Dawson organizations that have interests in the planning region. We call them stakeholders because they have a direct “stake” in the outcome of our work.



Representatives from each of these groups have now participated in three focused workshops with the Commission, TWG and additional technical staff of the Parties. These workshops recognize the expertise, experience and knowledge of the region that stakeholders can provide to the Commission to help with decision-making. They also encourage communication and provide an opportunity to work together on creative solutions.

The first workshop (May 2013 in Dawson) reviewed the preliminary plan objectives and potential evaluation criteria that came out of the February 2013 public workshop. Participants gave the Commission meaningful input and started the process of working together to develop plan alternatives.



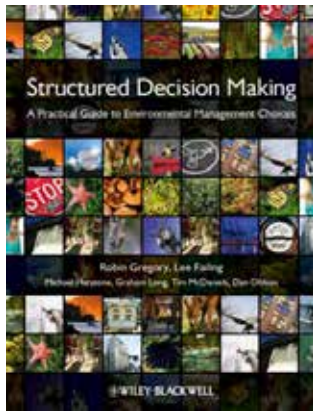
At the second workshop (June 2013 in Dawson), the Commission presented some first drafts of plan alternatives as a way to explore planning tools. We looked at the consequences and trade-offs associated with different options.

The most recent workshop (December 2013 in Whitehorse) reviewed all the Commission’s work to date. We talked about how stakeholder and public input had improved the design of alternatives and the evaluation framework we would use. We presented our latest round of draft alternatives, and had focused discussions on several topics including the zoning system, evaluation criteria, land management units, and the Yukon River corridor. Participants also gave us some advice on general management directions to consider for the Draft Plan.

Summaries of discussion from all of these workshops are available on our website. We hope to have at least one more stakeholder workshop as we move towards the Draft Plan.



Decision Framework

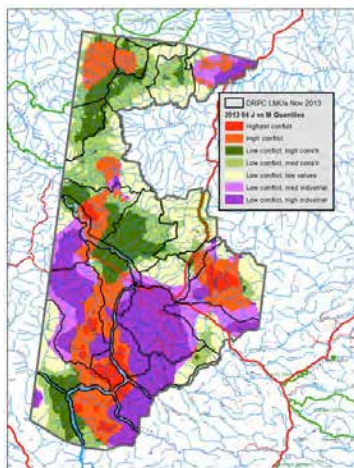


In early 2013, the Commission started using a tool called a decision framework to help us create alternatives and measure how well each one achieves our objectives for the region. The official name for this process is **Structured Decision Making (SDM)**. Commission staff attended a training course on these methods, and a consultant from the company who specializes in SDM helped facilitate the May and June 2013 stakeholder workshops.

The SDM process lets you clearly see the trade-offs each choice means for the many different values that you care about. SDM is also meant to be iterative (repeating) - each time you develop a new “round” of alternatives, you look at how it performs across your range of values. Maybe there’s a value missing, or it gives you a new idea for another alternative that would improve performance on some of the criteria – you can always go back and repeat some of the steps. Each round uses what you’ve learned and improves your options. It doesn’t make your decision for you - but it does help you gather information and see the consequences of various choices.

Because we are using a slightly modified version of the official SDM process, we just call it a “decision framework”. This tool will be only one of many things that will help us create a preferred alternative for the Draft Plan. See **Section Four – Evaluating Plan Alternatives** for more details. However, we like this method because we are committed to an open, transparent decision-making process. It shows people that we are considering all values on the same level (whether they can be “measured” or not), it lets us be honest about any uncertainty, and it clearly shows everyone the trade-offs associated with different alternatives. It will help us explain how and why we make our decisions.

Marxan Analysis



Marxan is a sophisticated computer modelling program that is used to design conservation areas. It helps identify the smallest possible areas on the landscape that will still achieve your objectives to protect important ecological resources and support biodiversity. Marxan is the most widely used conservation planning tool in the world.

Marxan can also be used to help identify areas of overlapping interests or values. If you have mapped information showing the locations of important ecological, cultural and industrial resources, it can show you where those values overlap on the landscape. Areas with very little overlap will have less potential for conflicting land use activities, and areas with lots of overlap are where we need to focus more planning effort on ways to resolve those issues.

Like a decision framework, Marxan doesn’t tell us the answer or make our decision for us. It is a decision support tool, giving us more information that will help us create a better plan.

Commission Meetings



The Commission meets regularly every one to two months, alternating between Dawson and Whitehorse. At these meetings we have considered technical advice, developed a Vision Statement and Goals, discussed regional resources and values, reviewed lessons learned from other planning processes, considered areas adjacent to the Dawson region, and talked about local issues and concerns. We have also considered our own personal knowledge of the region and life experiences.

We created Round 1 of Plan Alternatives in September-October 2013. This included draft Land Management Unit boundaries, draft zoning types (Land Use Designation System), and the creation of ten initial plan alternatives.



Round 2 took place in November-December 2013. We looked at how each alternative performed across our evaluation criteria, and decided on a short-list of five alternatives. We also looked at how four alternatives developed at the June stakeholder workshop performed – each of these was designed with a different priority focus (conservation, cultural, industrial and balanced approach). And we decreased the number of evaluation criteria by eliminating some that were less useful for helping us make our decisions.

Round 3 took place in December 2013-January 2014. We discussed the Land Use Designation System (LDS) in great detail, including recommendations from the joint Parties technical meeting. We talked about the wide range of planning tools and management strategies available, and how some areas in adjacent planning regions were zoned. We created a revised LDS, and used it to complete five new alternatives (the ones you see in this package). We made some changes to Land Management Unit boundaries to better reflect watersheds, and changed some names and numbers. In late January we met again to take a final look at the alternatives, and came up with more detailed definitions for the different types of zones.



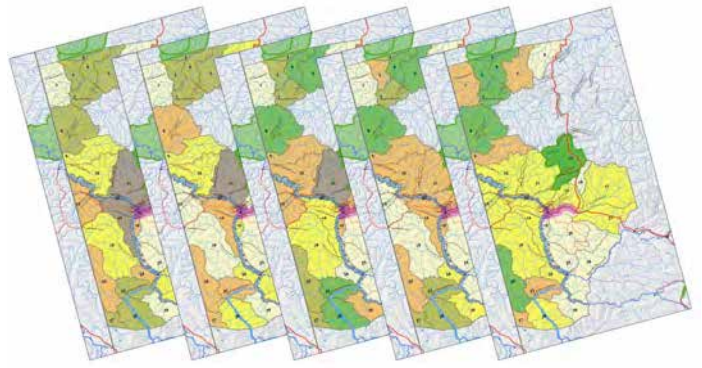
Magic!



Even with all the technical information, computer programs, maps, and data you still need a little magic! Everyone involved in designing alternatives has to use their creativity and imagination.

About the alternatives in this package

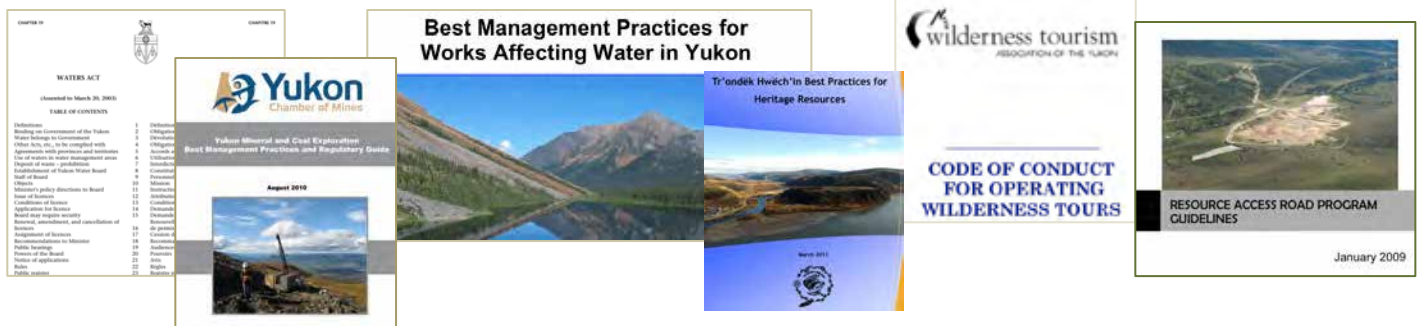
On the following pages, you will see five different alternatives (Alternatives A, B, C, D and E) as well as a description of the different zones we have used. Each alternative also has a table showing the percentage of the region that is in each zone.



As we've described throughout this section, these are not our first ideas but they're also not our last! When creating these alternatives, we considered key areas for all the significant and diverse values of the region (non-renewable resources, renewable resources, wildlife, heritage, recreation, tourism, and traditional economy) and where these values overlap and potentially conflict with each other.



We thought about the existing regulatory system and environmental assessment process. We also thought about the range of other management tools and strategies that are available, and the types of recommendations we can make in the plan.



We tried to remember that they should be realistic, achievable and implementable.



We also know that everyone can't have everything everywhere all the time, so we have already made some compromises and trade-offs.



These five alternatives represent various options and possibilities for how to achieve our vision and goals for the region: Economic Prosperity, Active Management, Equitable Balance, and Stewardship.



VISION STATEMENT

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People have been and continue to be an integral part of the landscape, acting as stewards to protect natural values, and working together as a community to realize opportunities for well-balanced economic growth.

Shared and respectful use of resources contributes to a sustainable and self-supporting economy.

Ecological and cultural values are undiminished by the careful development of economic resources, ensuring healthy ecosystems and clean drinking water are enjoyed by future generations.

People engage in consensus building, working with purpose and in harmony to sustainably balance the environment, economy and quality of life.



GOALS

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People with a diversity of perspectives and interests engage in consensus building to realize and benefit from economic, ecological, social and cultural opportunities.

Active Management

Innovative and efficient methods for integrated management of natural resources contribute to an enhanced quality of life and a healthy ecosystem.

Equitable Balance

Economic, ecological, social, and cultural outcomes are considered in decision-making about land use.

Stewardship

All resources are used or conserved wisely to ensure benefits are enjoyed by future generations.





The feedback we get from everyone during this review period will help us improve them even more!



Section Three

Plan Alternatives

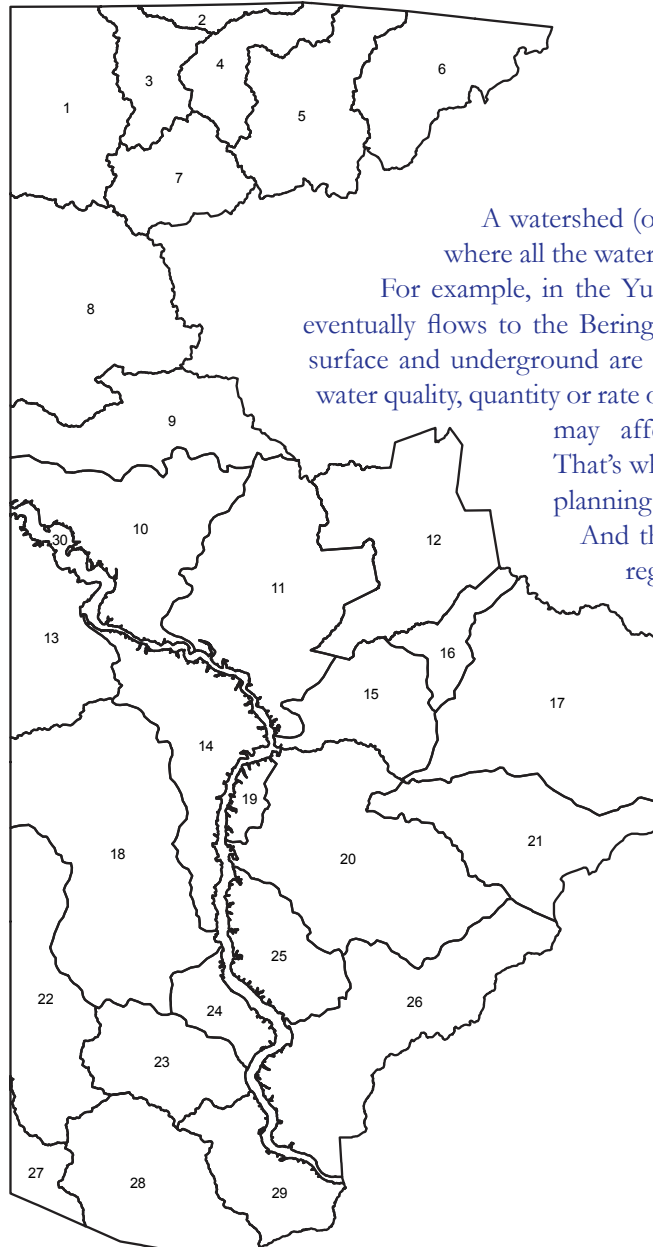
Landscape Management Units

The planning region is divided into a number of smaller areas called Landscape Management Units (LMUs). LMUs help the Commission focus on specific values and make more detailed recommendations. Having these smaller units also makes it easier for land managers to implement the plan.

In the central part of the Dawson region, LMUs were created using the landscape units in the *Dawson Forest Resources Management Plan* (March 2013). These were based mostly on watershed boundaries, modified to fit local access and development patterns. In the northern and southern parts of the region, LMUs are mostly based on watersheds. In some cases the boundaries have been changed to match already identified areas (e.g., Tombstone Park or adjacent regional land use plans) or to keep certain values or interests together (e.g., existing claim blocks, extent of oil and gas basins, or key wildlife habitat areas).

The Yukon River Corridor LMU is an exception. Its boundaries are defined by the edge of lowland or riparian forests within three kilometers of the center of the river.

1	Kandik River
2	Fishing Branch
3	Miner River West
4	Miner River
5	Whitestone River
6	Eagle Plains
7	Upper Miner River
8	Tatonduk River
9	Eagle Creek
10	Coal Creek
11	Twelve Mile
12	Tombstone Park
13	Forty Mile River
14	Swede Creek
15	Rock Creek
16	North Klondike River
17	South Klondike River
18	Sixty Mile River
19	Caribou Creek
20	Goldfields
21	Flat Creek
22	Ladue River
23	Lower White River
24	Excelsior Creek
25	Henderson Creek
26	Stewart River
27	Scottie Creek Wetlands
28	Upper White River
29	Coffee Creek
30	Yukon River Corridor



did you know...?

A watershed (or drainage basin) is an area of land where all the water within it flows to a common point. For example, in the Yukon River watershed, all the water eventually flows to the Bering Sea. Because all the water on the surface and underground are connected, any activity that affects water quality, quantity or rate of flow in one part of the watershed may affect other locations downstream. That's why using watersheds is helpful when planning for the future or managing activities. And that's why this edge of the Dawson region has such a strange shape – this area is part of the Peel Watershed and is included in a different regional plan.

Land Use Designation System

There are many different types of zones....



The Land Use Designation System (LDS) is our choice of zones for the land use plan. The zones are various combinations of **management intent** (what do we want to achieve in that zone or what is our priority?) and **management strategies** (how will we achieve it?).

Some parts of the region may contain higher concentrations of important ecological and cultural values, or be more sensitive to disturbance (for example, locations of rare plants or permafrost areas). These areas require careful land management. Other parts of the region may be less sensitive or have high economic potential.

Based on the values that are in each Land Management Unit (LMU) – the smaller pieces that make up the planning region – the Commission decides which zone to use. The LDS provides a broad guide for decision-making and managing land use activities.

We use zones to:

- Provide connectivity between areas with similar values
- Promote or encourage certain activities, or give priority to some values over others in certain areas
- Identify areas that are most appropriate for integration of multiple uses
- Reduce or avoid potential land use conflicts
- Recognize the status quo (existing regulatory system) and its limitations
- Visually show land allocation decisions and provide certainty for land users
- Improve efficiency and decision making for resource managers

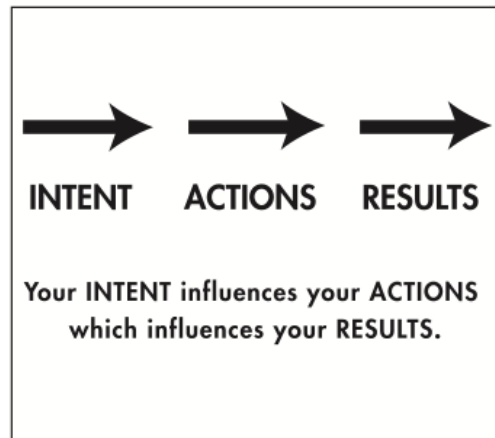


In general, land use zones are described as points along a continuum from “protection” to “development”. At one end, the management intent is to preserve and protect ecosystem integrity, areas relatively undisturbed by human activities, heritage and cultural values, and recreational values. At the other end, the management intent is to utilize and modify the landscape for economic development pursuits or human settlements.

Points in between might have a management intent that emphasizes some resource values over others, but still encourage many different kinds of land use activities. In many planning cases, the amount of land zoned at the “ends” of the continuum is relatively small compared to the amount zoned as “in between”, but each region is different and has its own unique values to be considered.



Intent Matters!



In addition to land use zones, some features require special consideration and additional management direction. For example, major rivers in the planning region have special ecological and cultural importance, or there may be site-specific recommendations for areas of key wildlife habitat or locations of rare plants.

For the purposes of creating alternatives, the Commission used a draft LDS that proposes six general land use categories: Protected Area (PA), Conservation Area (CA), Traditional Economy Area (TEA), Yukon River Corridor (YRC), Integrated Management Area (IMA), and Community Area. The IMA category is further defined into three distinct sub-categories (Zones II to IV). There is no IMA Zone I because the YRC zone is a unique regional “substitute” (and there is the additional newly proposed TEA zone), and to be consistent with the way IMA Zones II to IV are defined in adjacent regional plans. The differences between these categories are described below and in the colored table that follows.

Protected Area (PA)

This zone provides the highest level of legislated protection for critically important ecological and cultural resources. It provides opportunities for monitoring, research and the establishment of benchmark areas. Ecosystems with high biodiversity and large areas of relatively low human disturbance are also better able to adapt to climate change.

Conservation Area (CA)

Ecological resources in areas zoned CA may be sensitive to the impacts of disturbance seasonally or year-round, and may require additional management tools. The intent of this zone is to protect ecological and cultural values. Development may be permitted, but strict rules will be in place (vs. IMA Zone II which may appear similar but has a different management intent – the priority there is to enable renewable and non-renewable resource development).

Traditional Economy Area (TEA)

Tr'ondëk Hwëch'in have proposed this land use category to promote the concept of a traditional economy. The Commission has agreed to explore its use in these alternatives – we are interested to hear what you think about it!

The traditional economy is based on the harvest of natural resources but is not limited to subsistence activities such as hunting, fishing, trapping and gathering. It includes the development and care of efficient travel routes and harvest infrastructure, governance systems, and stewardship of natural resources. The extensive trail and river networks that enable the traditional economy can also be promoted and used for other industries. And encouraging the use of winter roads and narrow trails, as well as the use of water routes for travel, can reduce the impact of surface disturbance on the landscape.

As defined in this draft LDS, the traditional economy area would also promote renewable resource activities such as forestry, agriculture, renewable energy, tourism and recreation. An interim withdrawal of sub-surface rights would keep options open for the future (for example, the development of new technologies) and provide short-term certainty for some renewable resource-based industries. The traditional economy can also provide structure and capacity for monitoring, research, management, and reclamation – “taking care of the land” in a modern context through a stewardship role.

Yukon River Corridor (YRC)

This zone recognizes the unique importance the Yukon River plays in the Dawson planning region. It flows through the center of the region, and is highly valued by a range of users. The river provides access to resource-rich areas of the central Yukon that are not accessible by road. It is also important for its scenic views, cultural and heritage values, important wildlife habitat, and salmon migration routes.

This zone would protect important aquatic and riparian habitat, while allowing for industrial land use, landings and access points. The Commission may recommend that a sub-regional plan be completed for the Yukon River Corridor. For the purposes of these alternatives, the boundary has been defined as 3 km on either side of the center of the river (6 km total).

Other major rivers in the planning region (White River, Stewart River, and others) would also have special considerations that would be noted for individual Land Management Units.

Integrated Management Area (IMA)

All activities are allowed in IMA zones, subject to certain levels or acceptable limits of disturbance. In other words, if you can operate within the established standards, you can go ahead in this zone. Areas zoned IMA II or III require higher levels of stewardship because they contain ecological or cultural resources that may be sensitive to the impacts of disturbance year-round or on a seasonal basis. As currently defined, they do not require any changes to the current regulatory system, but may need more stringent management standards (for example, application of Class 1 mineral activity notification provisions).

Community Area

This zone has been identified for potential future expansion of the Dawson City municipal boundaries for residential development, infrastructure, or recreational purposes. For these alternatives, the boundary has been defined using a 5 km buffer around the current Dawson City and West Dawson boundaries and along the highway to the junction of the Klondike Highway and Dempster Highway.

Management Tools and Strategies

There are many other available tools and strategies to help us define the differences between zones, and to help us meet the management intent of each zone. As we move towards the Draft Plan, the Commission may consider any of the following options:



- Seasonal or timing restrictions to ensure protection of ecological or cultural values
- Developing cumulative effects indicators, and setting cautionary and critical levels for amount and density of surface disturbance
- Access management measures, considering: permanent/temporary roads, winter/all season roads, private/public roads, size of roads and trails, new regulations around off road vehicles, water-based access and air access
- Permitted or prohibited types of land use activities
- Monitoring, research and other adaptive management measures
- Many others...

We may also decide to change the number of zones and/or the number of Land Management Units (for example, if adjacent LMUs have similar values and are zoned the same, it may be simpler to combine them into one LMU).

When you get to **Section Five – Feedback**, one of the questions asks what you think about this Land Use Designation System and how we have defined the zones.

- Which management tools and strategies do you think could be used to help achieve the intent of each zone?
- Are there any gaps in the current regulatory system that need changing?
- How can we determine the level of risk to ecological and cultural resources?
- How do we deal with areas where there is uncertainty about the resource values?
- How can we promote sustainable economic development over the long term?
- How can we provide land use certainty and minimize potential land use conflicts throughout the region?



Land Use Designation System Table

	Integrated Management Area**			Yukon River Corridor	Traditional Economy Area	Conservation Area	Protected Area
	IMA Zone IV	IMA Zone III	IMA Zone II				
Management Intent	Enable Non-Renewable and Renewable Resource Development	Enable Non-Renewable and Renewable Resource Development	Enable Non-Renewable and Renewable Resource Development	Maintain cultural and ecological values within a multi-use river corridor	Enable renewable resource development and enhance the traditional economy	Conserve important wildlife habitat and ecological values	Protect significant ecological and cultural values
Explanation	Enables all activities within acceptable limits that are meant to maintain ecological and cultural values. These limits may encourage innovation and cooperation among land users. This management regime is most restrictive for Zone II and least for Zone IV. Management tools may include adaptive management, a range of cumulative effects indicators and threshold levels, access and seasonal restrictions/allowances, research and monitoring recommendations, and/or the newly created measures for Class 1 mining activities.			Enables transportation, tourism, recreation, renewable resource development and cultural pursuits. Viewscapes, heritage sites, and cultural and ecological values are major considerations.	Promotes renewable resource development and enhances the traditional economy, including: forestry, non-timber forest products, agriculture, and tourism as well as subsistence harvesting activities.	Allowable activities may include recreation, tourism, traditional subsistence activity, hunting, trapping, guiding. Access corridor to LMUs designated as IMA can be provided.	Allowable activities may include recreation, tourism, traditional subsistence activity, hunting, trapping, guiding. Access corridor to LMUs designated as IMA can be provided.
Legal Designation	No	No	No	No	No	Yes (e.g., Habitat Protection Area in <i>Wildlife Act</i>)	Yes (e.g., Natural Environment Park in <i>Parks and Land Certainty Act</i>)
Withdrawal of Sub-Surface Rights (all current rights grandfathered*)	No	No	No	Subject to sub-regional planning	Interim***	No	Yes
Subsequent Planning	No	No	No	Sub-regional plan	To be determined	Management Plan	Management Plan
Examples	North Yukon and Peel Watershed Land Use Plans IMA's			New Land Use Designation - no examples available		Fishing Branch Habitat Protection Area	Tombstone Territorial Park

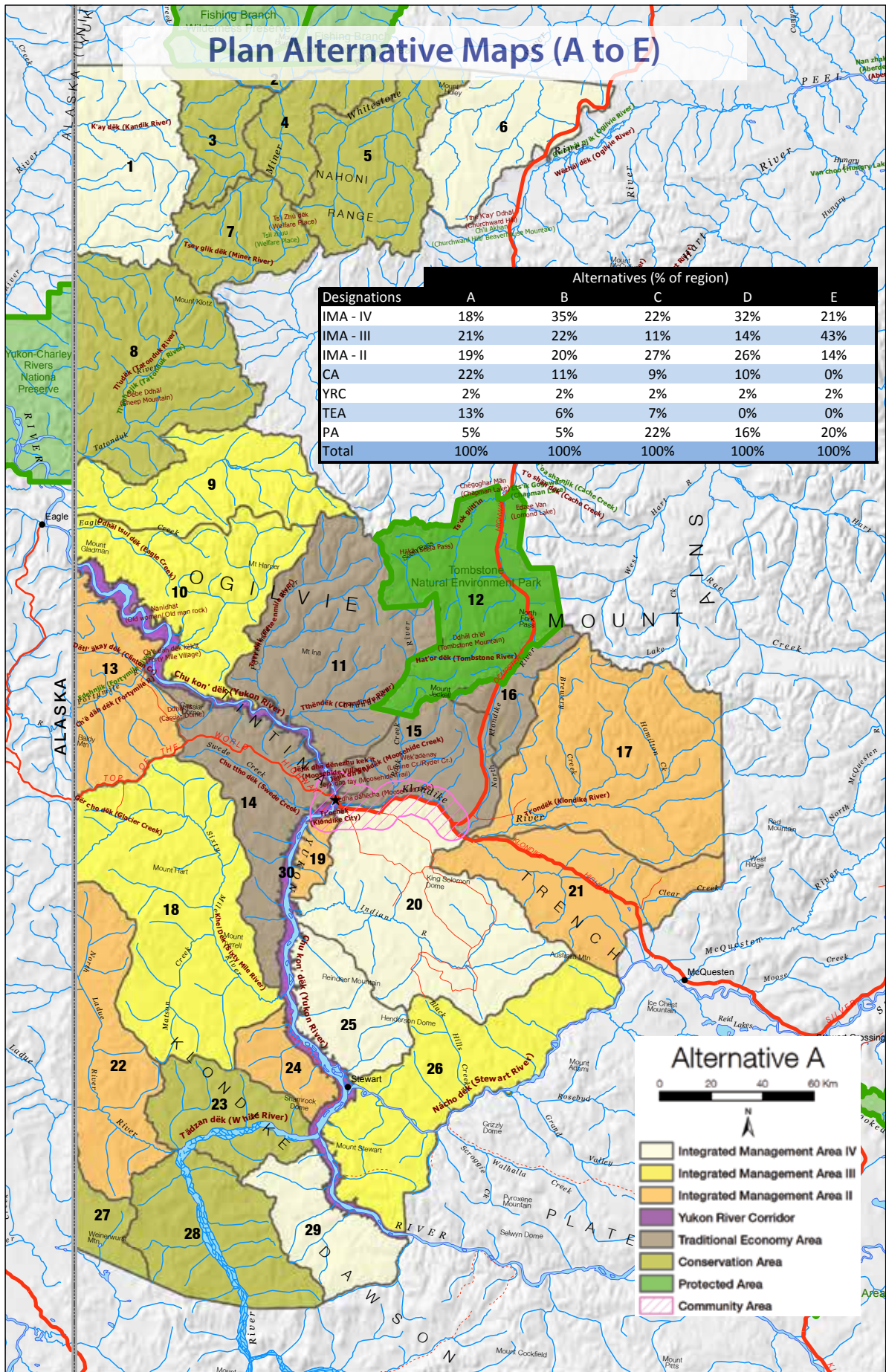
COMMUNITY AREA: Area identified to enable potential future expansion of Dawson City municipal boundary and/or additional land for residential development, infrastructure, and recreational purposes.

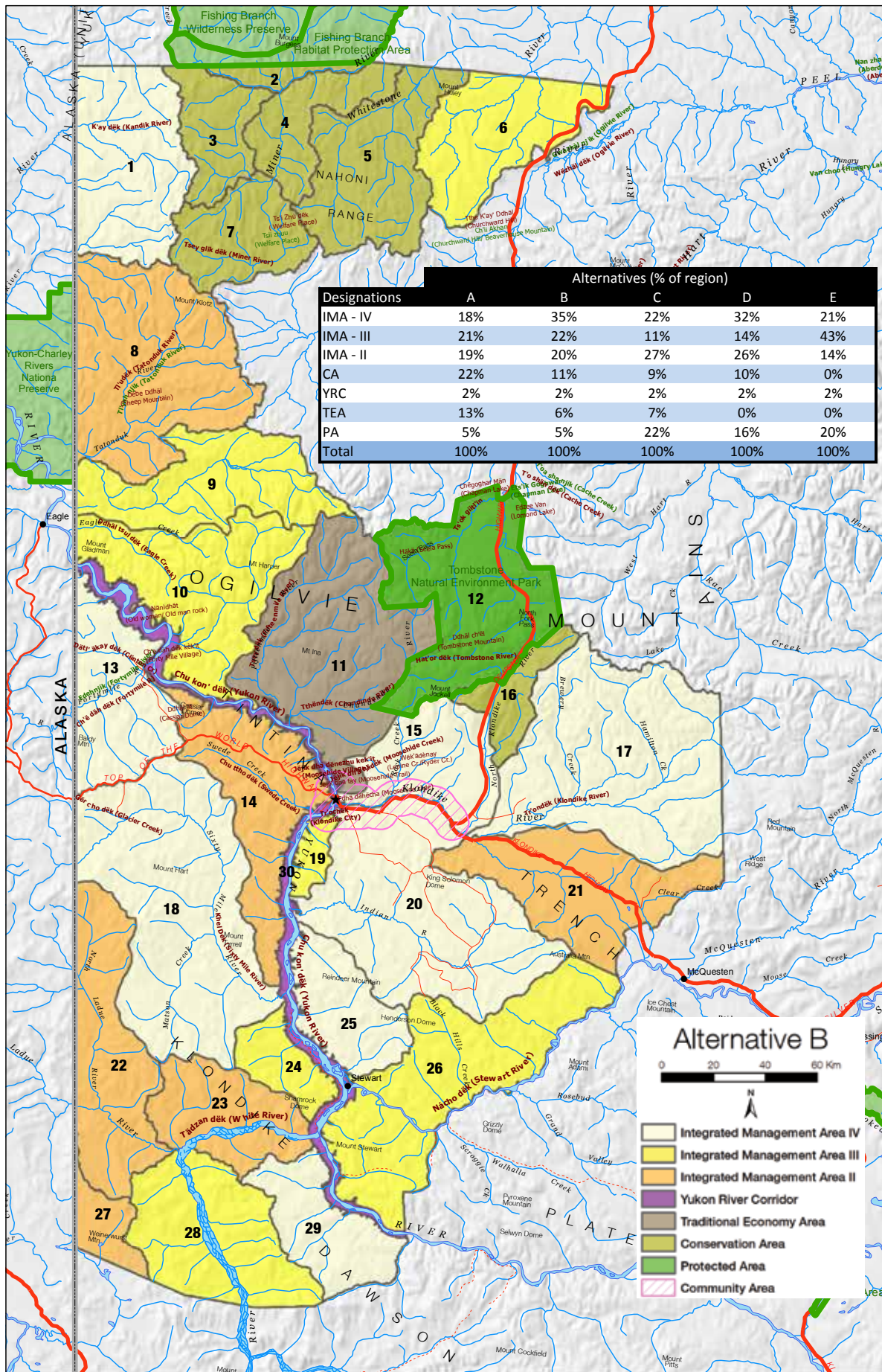
* In legal terms, "grandfathered" means to grant a special exception. It allows certain situations to continue to exist based on an older rule (the "grandfather clause"), even though a new rule is in place. Those with sub-surface mineral or oil and gas rights now would still be able to access and use those areas, even if they are in an LMU that is eventually zoned PA (or another zone where withdrawal of rights is seen as necessary to achieve the management intent). No NEW rights would be granted, and if the old claims lapsed they would no longer be valid.

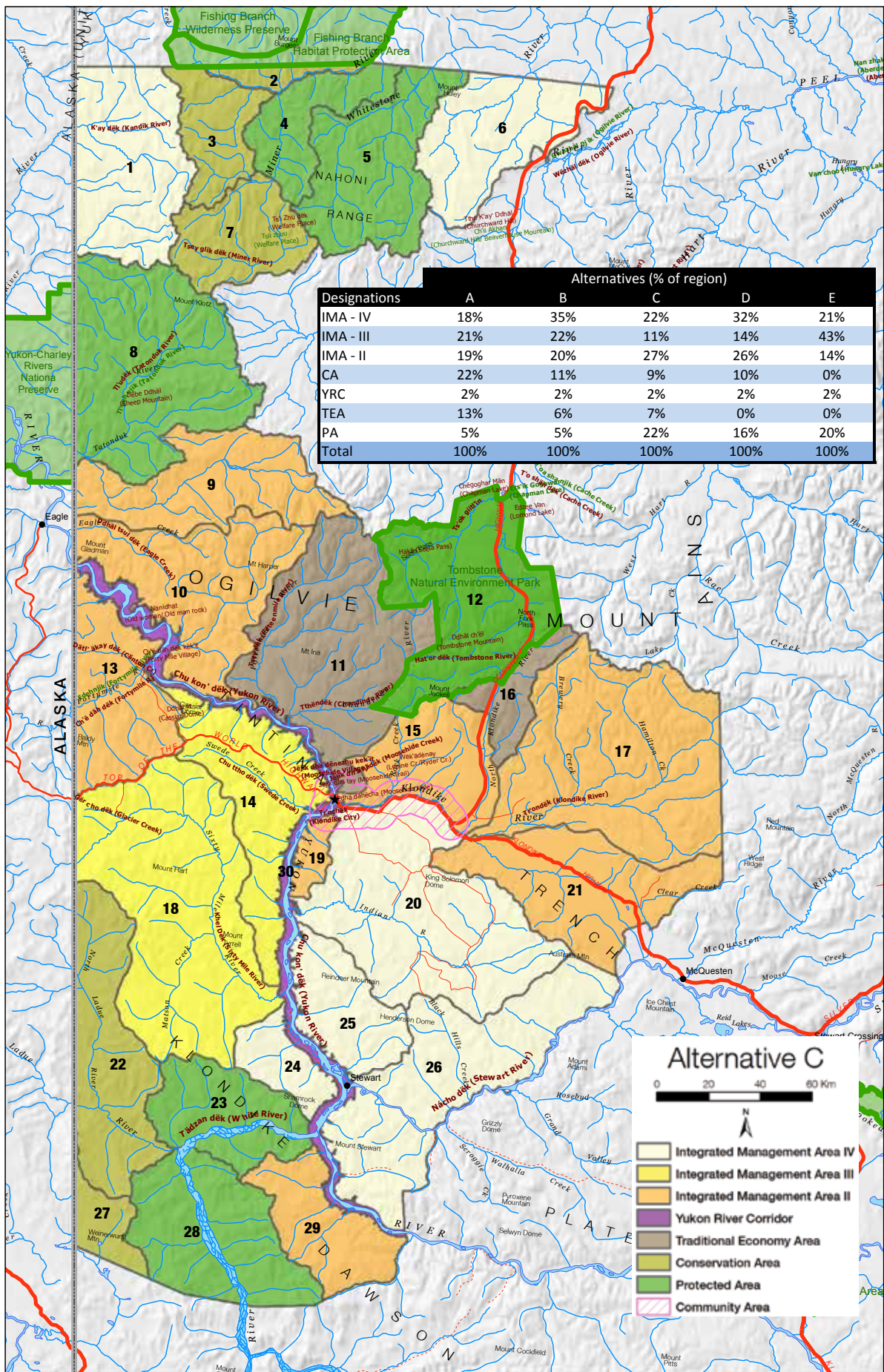
** There is no IMA Zone 1 because the Yukon River Corridor is a unique regional "substitute", and to ensure consistency with the definitions of IMA-II, III and IV in adjacent planning regions.

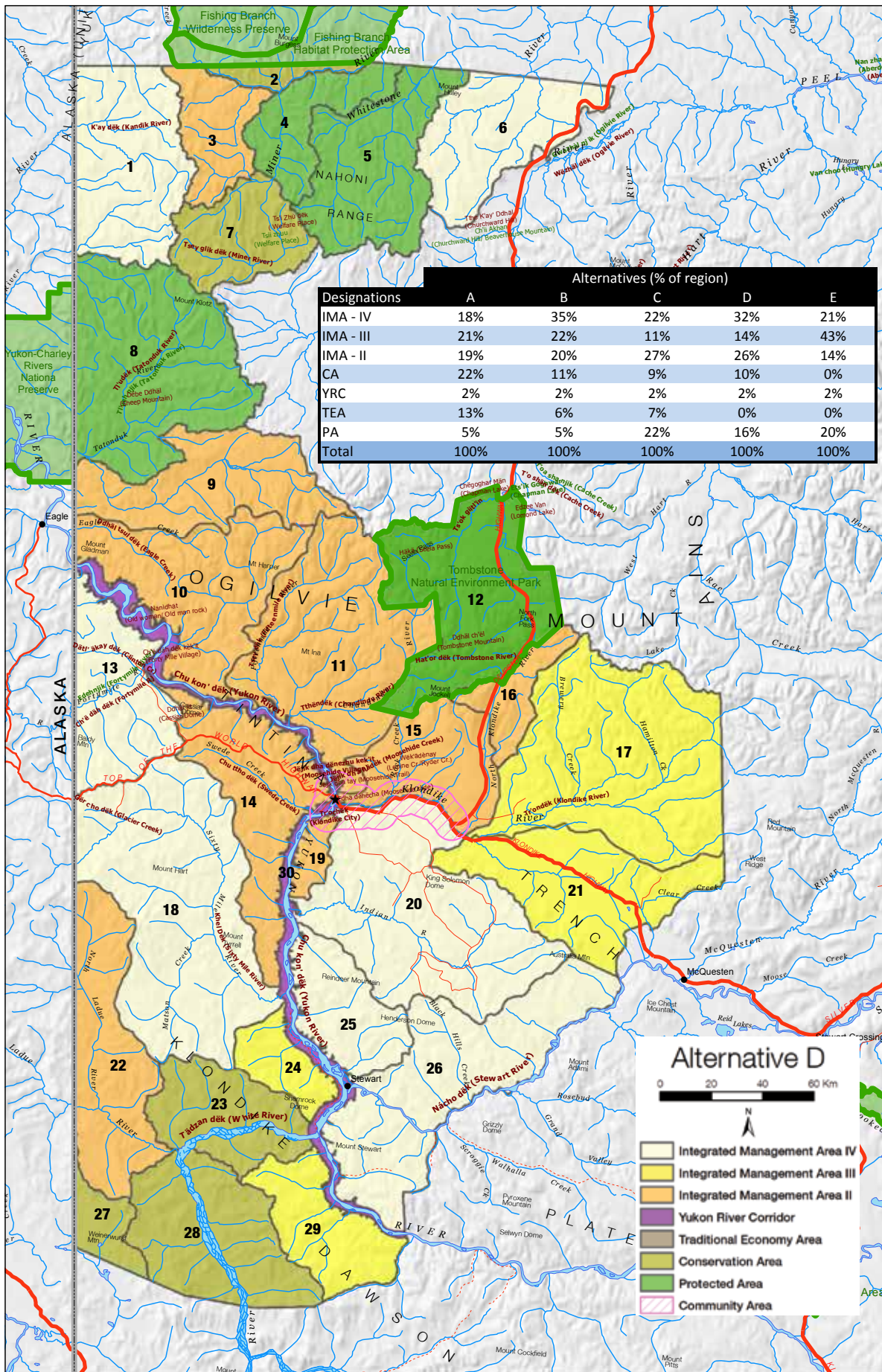
*** Interim rights withdrawal would be reviewed at 10 year Plan review, during sub-regional planning or as described in Implementation Plan.

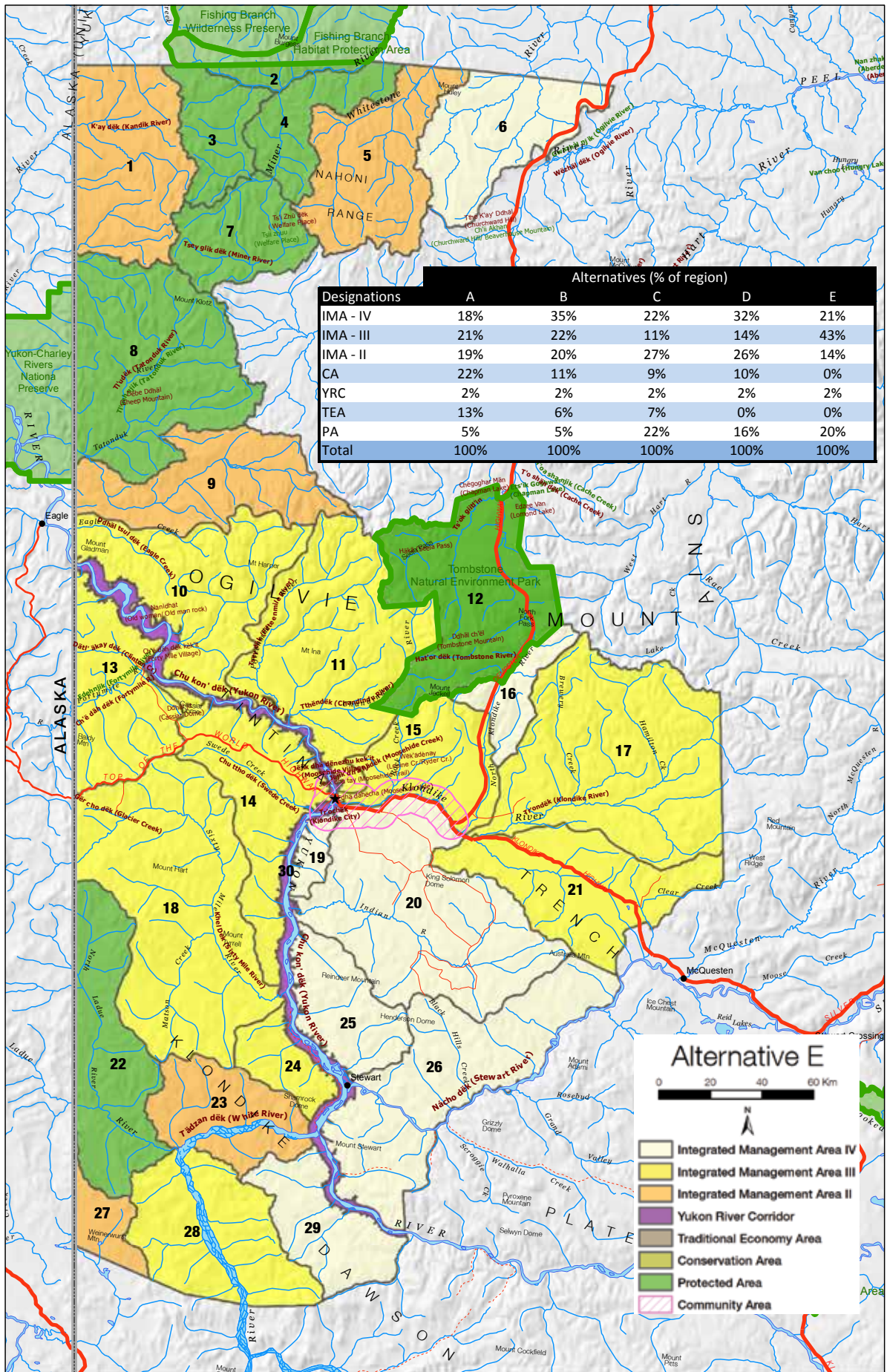
Plan Alternative Maps (A to E)











How much? Percent of the total region in each zone (Plan Alternatives A to E)



Designations	Alternatives (sq. km)				
	A	B	C	D	E
IMA - IV	8069	15816	10081	14374	9534
IMA - III	9545	9934	5016	6464	19273
IMA - II	8663	9058	12216	11980	6442
CA	10157	4817	3956	4393	0
YRC	920	920	920	920	920
TEA	5799	2608	3101	0	0
PA	2101	2101	9963	7122	9085
Total	45253	45253	45253	45253	45253

Designations	Alternatives (% of region)				
	A	B	C	D	E
IMA - IV	18%	35%	22%	32%	21%
IMA - III	21%	22%	11%	14%	43%
IMA - II	19%	20%	27%	26%	14%
CA	22%	11%	9%	10%	0%
YRC	2%	2%	2%	2%	2%
TEA	13%	6%	7%	0%	0%
PA	5%	5%	22%	16%	20%
Total	100%	100%	100%	100%	100%

Designations	Alternatives (% of region)				
	A	B	C	D	E
No withdrawal	81%	88%	69%	82%	78%
Withdrawal	19%	12%	31%	18%	22%
Total	100%	100%	100%	100%	100%



Section Four

Evaluating Plan Alternatives

Evaluating Plan Alternatives

As described in the previous section, we have used many different information sources, methods, tools, and feedback and considered many possible options as we prepared this round of alternatives. We will use all this previous information, our own knowledge and experience, input from the Parties and stakeholders, and everything we hear during this review period to think about our options for the Draft Plan.

However, in this section we'd like to tell you a bit more about the decision framework, an important tool that we're using to help us evaluate how each alternative performs (how well it helps us reach our goals and objectives for the region). We hope that by showing you how it works, you'll also find it a useful way to better understand the trade-offs associated with each option.



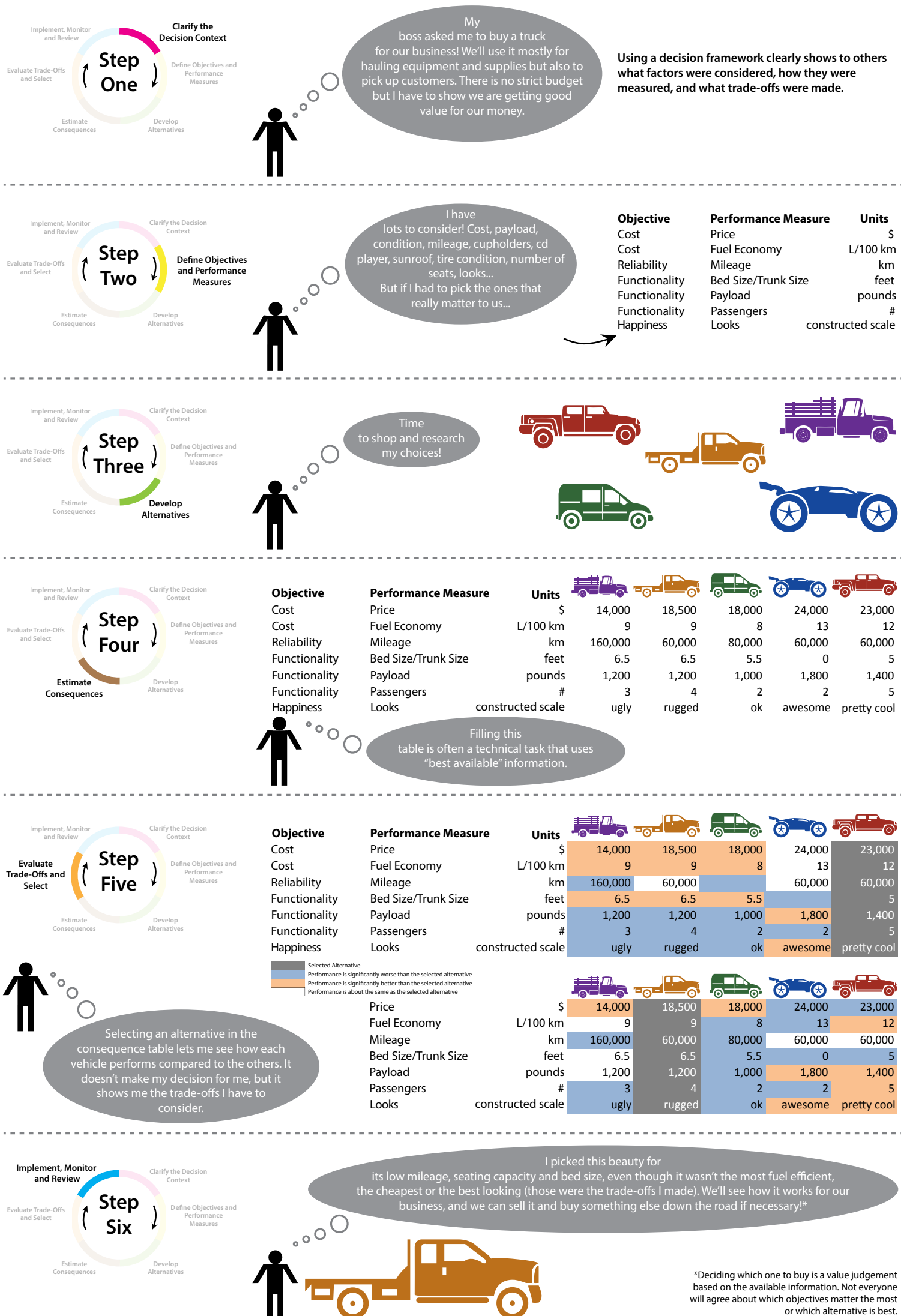
On the following page, we give you a simple example of how to use a decision framework. Then we show you our five alternatives and describe how each performs in our framework. Finally, we give you some more information about how the evaluation criteria were chosen and where the numbers come from. If you would like to read more about the basis for our framework, Structured Decision Making (SDM), please see **Appendix Two: What is SDM**.

When you are looking at each alternative, here's some other things to think about:

- Does this option help move the region towards the long-term vision and goals?
- Does it consider existing land uses as well as keep options open for the future?
- Does it balance economic, environmental, social and cultural values? Does it protect special places like key wildlife areas, unique and special landscapes, and important cultural areas and promote sustainable economic development?
- Does it address the key issues that need to be resolved?
- Is it realistic, affordable and achievable?
- Is uncertainty recognized and addressed in some way?
- How well does it meet my interests and values (or those of my industry or organization)?



Using a Decision Framework: A simple example

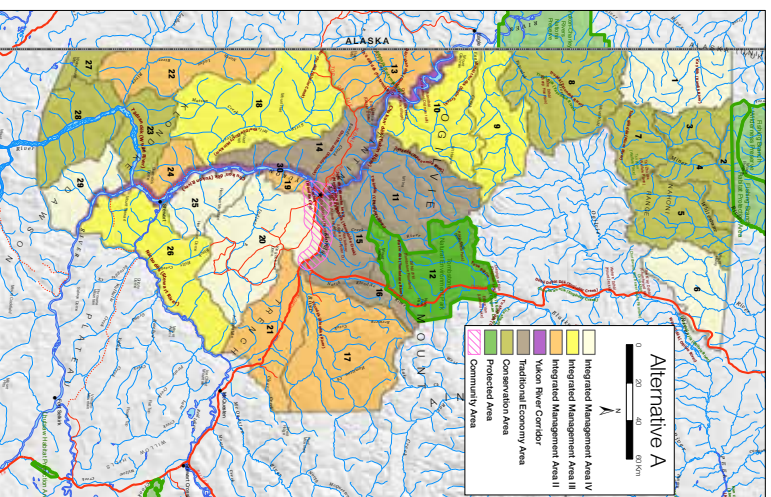


*Adapted from an original example provided by Compass Resource Management Ltd.

Decision Framework Results for Plan Alternatives (A to E)

Alternative A

This alternative generally performs better than the others with measures of traditional economy and heritage and cultural resources. Though it mostly performs worse in the mineral, forestry and tourism sectors, it is the top performer in the oil and gas sector. After alternative B, it generally does not perform well among the ecological measures, in part because it does not include any new protected areas. However, it does the best for the Forty Mile Caribou Herd.

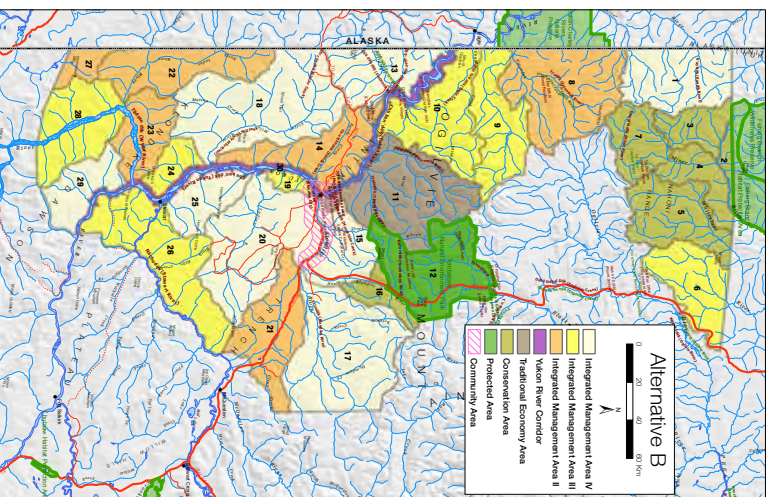


Performance Measures		Units	A	B	C	D	E
Placer Potential	%	73.87%	86.10%	80.42%	94.16%	83.50%	
Mineral Potential	%	31.21%	50.79%	32.19%	46.49%	47.07%	
Gold Potential	%	38.41%	61.15%	40.86%	56.11%	56.22%	
Oil & Gas basins	%	69.09%	53.49%	64.95%	64.95%	31.22%	
Current # Placer Claims	%	35.72%	52.31%	35.76%	46.81%	46.24%	
Forest Resource Management Zone with older trees	%	48.60%	78.83%	46.18%	60.85%	59.05%	
High value recreation features	%	49.31%	48.42%	63.78%	61.62%	61.40%	
Aboriginal trapping concessions	%	50.52%	37.82%	50.37%	44.51%	46.90%	
Non-timber forest products (amt. forest <5km from access)	%	40.35%	20.76%	31.79%	21.39%	21.49%	
Heritage Routes	%	54.89%	42.70%	55.05%	42.47%	44.02%	
Cultural Sites	%	50.77%	36.01%	45.59%	38.88%	34.36%	
T'ondëk Hwëch'in merged heritage value	%	83.91%	79.13%	82.11%	78.75%	75.53%	
Viewscapes from cultural routes	%	53.31%	34.01%	51.71%	35.68%	32.31%	
Rare Landscape Features: # (of 6 types) with >50% conservation	#	1	1	5	3	3	
Ecological Land Classification Representation (0-1, 0 is best)	#	0.51	0.51	0.21	0.47	0.27	
Salmon Spawning Habitat	%	45.62%	37.71%	52.30%	43.73%	39.27%	
Non-sheep Wildlife Key Areas	%	42.54%	32.85%	50.77%	42.96%	41.27%	
Sheep Wildlife Key Areas	%	51.66%	44.70%	67.60%	64.08%	59.07%	
Forty Mile Caribou Herd Good Habitat	%	38.38%	23.01%	34.79%	25.48%	28.98%	
Ecological Benchmark Index (0-1, 0 is best)	#	0.19	0.19	0.03	0.04	0.05	

Key	
Selected alternative	
Performance is significantly worse than the selected alternative	
Performance is significantly better than the selected alternative	
Performance is about the same as the selected alternative	

Alternative B

Despite generally performing better than the others among the mineral and forestry sectors, this alternative performs poorly for the oil and gas sector. It also performs worse or on par with the other alternatives with measures of traditional economy and heritage and cultural resources. It does not perform well among the ecological measures, in part because it does not include any new protected areas.



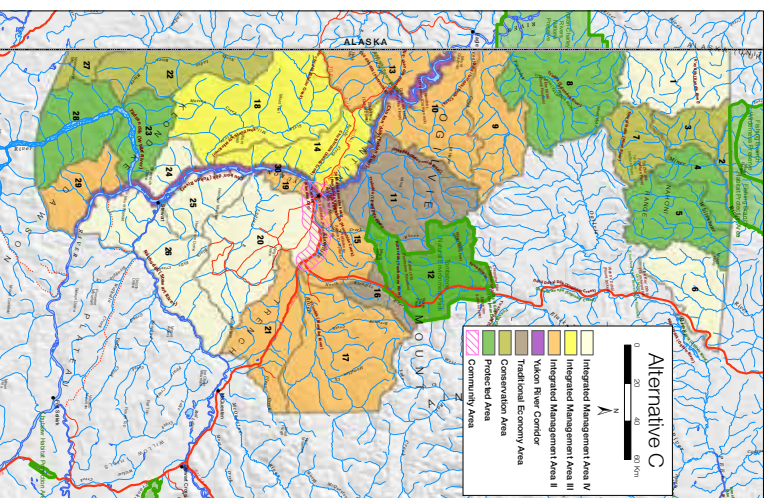
Performance Measures		Units	A	B	C	D	E
Placer Potential	%	73.87%	86.10%	80.42%	94.16%	83.50%	
Mineral Potential	%	31.21%	50.79%	32.19%	46.49%	47.07%	
Gold Potential	%	38.41%	61.15%	40.86%	56.11%	56.22%	
Oil & Gas basins	%	69.09%	53.49%	64.95%	64.95%	31.22%	
Current # Placer Claims	%	35.72%	52.31%	35.76%	46.81%	46.24%	
Forest Resource Management Zone with older trees	%	48.60%	78.83%	46.18%	60.85%	59.05%	
High value recreation features	%	49.31%	48.42%	63.78%	61.62%	61.40%	
Aboriginal trapping concessions	%	50.52%	37.82%	50.37%	44.51%	46.90%	
Non-timber forest products (amt. forest <5km from access)	%	40.35%	20.76%	31.79%	21.39%	21.49%	
Heritage Routes	%	54.89%	42.70%	55.05%	42.47%	44.02%	
Cultural Sites	%	50.77%	36.01%	45.59%	38.88%	34.36%	
T'ondëk Hwëch'in merged heritage value	%	83.91%	79.13%	82.11%	78.75%	75.53%	
Viewscapes from cultural routes	%	53.31%	34.01%	51.71%	35.68%	32.31%	
Rare Landscape Features: # (of 6 types) with >50% conservation	#	1	1	5	3	3	
Ecological Land Classification Representation (0-1, 0 is best)	#	0.51	0.51	0.21	0.47	0.27	
Salmon Spawning Habitat	%	45.62%	37.71%	52.30%	43.73%	39.27%	
Non-sheep Wildlife Key Areas	%	42.54%	32.85%	50.77%	42.96%	41.27%	
Sheep Wildlife Key Areas	%	51.66%	44.70%	67.60%	64.08%	59.07%	
Forty Mile Caribou Herd Good Habitat	%	38.38%	23.01%	34.79%	25.48%	28.98%	
Ecological Benchmark Index (0-1, 0 is best)	#	0.19	0.19	0.03	0.04	0.05	

Key
Selected alternative
Performance is significantly worse than the selected alternative
Performance is significantly better than the selected alternative
Performance is about the same as the selected alternative

Key	
 	Selected alternative
 	Performance is significantly worse than the selected alternative
 	Performance is significantly better than the selected alternative
 	Performance is about the same as the selected alternative

Alternative C

Ecologically speaking, this alternative performs better than the others. It also performs well among measures of traditional economy and heritage and cultural resources. It is a poor performer for the mineral and forestry sectors, though it does perform reasonably well for the oil and gas sector.



Performance Measures		Units	A	B	C	D	E
Placer Potential	%	73.87%	86.10%	80.42%	94.16%	83.50%	
Mineral Potential	%	31.21%	50.79%	32.19%	46.49%	47.07%	
Gold Potential	%	38.41%	61.15%	40.86%	56.11%	56.22%	
Oil & Gas basins	%	69.09%	53.49%	64.95%	64.95%	31.22%	
Current # Placer Claims	%	35.72%	52.31%	35.76%	46.81%	46.24%	
Forest Resource Management Zone with older trees	%	48.60%	78.83%	46.18%	60.85%	59.05%	
High value recreation features	%	49.31%	48.42%	63.78%	61.62%	61.40%	
Aboriginal trapping concessions	%	50.52%	37.82%	50.37%	44.51%	46.90%	
Non-timber forest products (amt. forest <5km from access)	%	40.35%	20.76%	31.79%	21.39%	21.49%	
Heritage Routes	%	54.89%	42.70%	55.05%	42.47%	44.02%	
Cultural Sites	%	50.77%	36.01%	45.59%	38.88%	34.36%	
T'ondëk Hwëch'in merged heritage value	%	83.91%	79.13%	82.11%	78.75%	75.53%	
Viewscapes from cultural routes	%	53.31%	34.01%	51.71%	35.68%	32.31%	
Rare Landscape Features: # (of 6 types) with >50% conservation	#	1	1	5	3	3	
Ecological Land Classification Representation (0-1, 0 is best)	#	0.51	0.51	0.21	0.47	0.27	
Salmon Spawning Habitat	%	45.62%	37.71%	52.30%	43.73%	39.27%	
Non-sheep Wildlife Key Areas	%	42.54%	32.85%	50.77%	42.96%	41.27%	
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Forty Mile Caribou Herd Good Habitat	%	38.38%	23.01%	34.79%	25.48%	28.98%	
Ecological Benchmark Index (0-1, 0 is best)	#	0.19	0.19	0.03	0.04	0.05	

Key

Selected alternative

Performance is significantly worse than the selected alternative

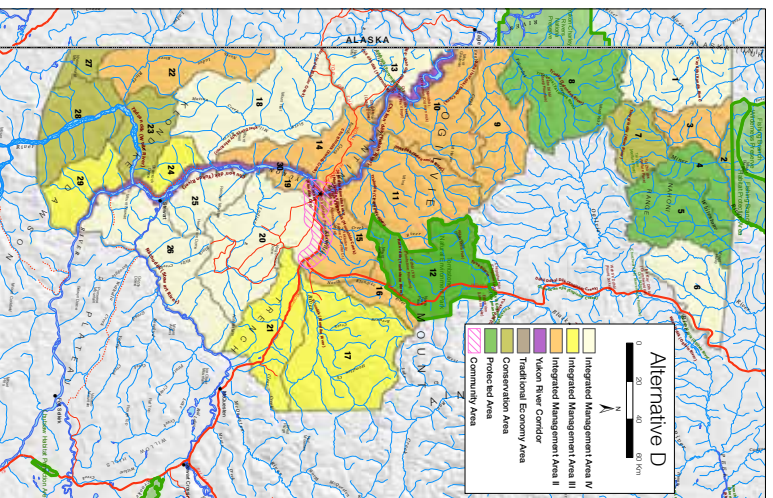
Performance is significantly better than the selected alternative

Performance is about the same as the selected alternative

Key	
	Selected alternative
	Performance is significantly worse than the selected alternative
	Performance is significantly better than the selected alternative
	Performance is about the same as the selected alternative

Alternative D

Alternative D is the best performer for placer potential and performs well among the mineral and oil and gas measures. It is roughly in the middle of the pack among measures of traditional economy, heritage and cultural resources and ecology. The performance of this alternative, across most values and interests, is a bit better than Alternative E.



Performance Measures		Units	A	B	C	D	E
Placer Potential	%	73.87%	86.10%	80.42%	94.16%	83.50%	
Mineral Potential	%	31.21%	50.79%	32.19%	46.49%	47.07%	
Gold Potential	%	38.41%	61.15%	40.86%	56.11%	56.22%	
Oil & Gas basins	%	69.09%	53.49%	64.95%	64.95%	31.22%	
Current # Placer Claims	%	35.72%	52.31%	35.76%	46.81%	46.24%	
Forest Resource Management Zone with older trees	%	48.60%	78.83%	46.18%	60.85%	59.05%	
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Aboriginal trapping concessions	%	50.52%	37.82%	50.37%	44.51%	46.90%	
Non-timber forest products (amt. forest <5km from access)	%	40.35%	20.76%	31.79%	21.39%	21.49%	
Heritage Routes	%	54.89%	42.70%	55.05%	42.47%	44.02%	
Cultural Sites	%	50.77%	36.01%	45.59%	38.88%	34.36%	
T'ondëk Hwëch'in merged heritage value	%	83.91%	79.13%	82.11%	78.75%	75.53%	
Viewscapes from cultural routes	%	53.31%	34.01%	51.71%	35.68%	32.31%	
Rare Landscape Features: # (of 6 types) with >50% conservation	#	1	1	5	3	3	
Ecological Land Classification Representation (0-1, 0 is best)	#	0.51	0.51	0.21	0.47	0.27	
Salmon Spawning Habitat	%	45.62%	37.71%	52.30%	43.73%	39.27%	
Non-sheep Wildlife Key Areas	%	42.54%	32.85%	50.77%	42.96%	41.27%	
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Forty Mile Caribou Herd Good Habitat	%	38.38%	23.01%	34.79%	25.48%	28.98%	
Ecological Benchmark Index (0-1, 0 is best)	#	0.19	0.19	0.03	0.04	0.05	

Key

Selected alternative

Performance is significantly worse than the selected alternative

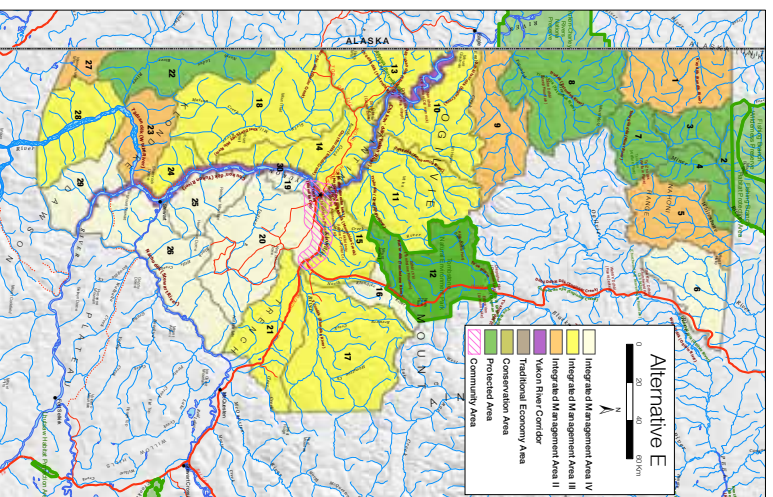
Performance is significantly better than the selected alternative

Performance is about the same as the selected alternative

Key	
 	Selected alternative
 	Performance is significantly worse than the selected alternative
 	Performance is significantly better than the selected alternative
 	Performance is about the same as the selected alternative

Alternative E

This alternative is roughly in the middle of the pack among measures of non-renewable resources and ecology, though it is the worst for the oil and gas sector. Aside from Alternative B, it performs worse than the others for the traditional economy and heritage resources. Across most values and interests, this alternative is edged out by Alternative D.



Performance Measures		Units	A	B	C	D	E
Placer Potential	%	73.87%	86.10%	80.42%	94.16%	83.50%	
Mineral Potential	%	31.21%	50.79%	32.19%	46.49%	47.07%	
Gold Potential	%	38.41%	61.15%	40.86%	56.11%	56.22%	
Oil & Gas basins	%	69.09%	53.49%	64.95%	64.95%	31.22%	
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Aboriginal trapping concessions	%	50.52%	37.82%	50.37%	44.51%	46.90%	
Non-timber forest products (amt. forest <5km from access)	%	40.35%	20.76%	31.79%	21.39%	21.49%	
Heritage Routes	%	54.89%	42.70%	55.05%	42.47%	44.02%	
Cultural Sites	%	50.77%	36.01%	45.59%	38.88%	34.36%	
T'ondëk Hwëch'in merged heritage value	%	83.91%	79.13%	82.11%	78.75%	75.53%	
Viewscapes from cultural routes	%	53.31%	34.01%	51.71%	35.68%	32.31%	
Rare Landscape Features: # (of 6 types) with >50% conservation	#	1	1	5	3	3	
Ecological Land Classification Representation (0-1, 0 is best)	#	0.51	0.51	0.21	0.47	0.27	
Salmon Spawning Habitat	%	45.62%	37.71%	52.30%	43.73%	39.27%	
Non-sheep Wildlife Key Areas	%	42.54%	32.85%	50.77%	42.96%	41.27%	
Sheep Wildlife Key Areas	%	51.66%	44.70%	67.60%	64.08%	59.07%	
Forty Mile Caribou Herd Good Habitat	%	38.38%	23.01%	34.79%	25.48%	28.98%	
Ecological Benchmark Index (0-1, 0 is best)	#	0.19	0.19	0.03	0.04	0.05	

Key
Selected alternative
Performance is significantly worse than the selected alternative
Performance is significantly better than the selected alternative
Performance is about the same as the selected alternative

Key	
Selected alternative	
Performance is significantly worse than the selected alternative	
Performance is significantly better than the selected alternative	
Performance is about the same as the selected alternative	

Now that you've looked at the consequence tables and evaluation criteria, you may be wondering....

Why are there only 20 criteria? Why don't I see "my" value? Where do the numbers come from?

At the February 2013 public planning workshop in Dawson, a list over 100 objectives and potential performance measures were created (for the full list, see the workshop summary, available on our website).

ECONOMIC VALUES	
Objectives (unorganized)	Suggested Performance Measures
Maximize economic prosperity = max(opportunity, stability, efficiency)	• GDP
Maximize access to resources	• project longevity (mine life)
Maximize renewable resource activity	• proximity of resource potential to roads
Maximize energy availability	• total length of roads
Maximize local benefit from economic activity	• # of satirizer/guide permits
• Maximize job opportunities	
• Maximize local supply services	
• Minimize cost of entry (to business)	
• Maximize revenue from tourism	
• Maximize tourism visits	
• Maximize local cultural and sporting events	
• Maximize local food production	

SOCIO-CULTURAL VALUES	
Objectives (unorganized)	
Minimize impact of resource development on traditional economic activity	
Maximize cultural landscapes	
• Maximize land base for traditional activities	
• Maximize cultural context for resource activities	
• Maximize economic benefit from traditional cultural activity	
• Maximize economic benefit from cultural heritage resources	
• Maximize harvest of culturally relevant resources	
• Maximize traditional economic opportunity	
• Maximize awareness of heritage resources	
Maximize sense of connection to place	
• Maximize scenic landscapes	
• Maintain integrity of historic sites	
• Maintain integrity of heritage resources	
• Minimize impact of land use activity on heritage resources	
• Maximize recreational opportunity	
• Maximize cultural benefit from interpretation of heritage resources	
• Maximize use of traditional place names	

NATURAL VALUES	
Objectives (unorganized)	Possible Performance Measure
Maximize ecological function	• ecological integrity (linear feature density)
• Maximize air quality	• visibility
• Maximize water quality	• greenhouse gas emissions
• Maintain water quantity	• chemical/physical properties (acidity, dissolved O ₂ , potability)
• Maintain rates of flow	• volume of water
• Maximize aquatic health	• rate of flow
Maintain biodiversity	• # of benthic invertebrates
• Maximize species health	• # of species
• Maximize local size for wildlife	• # of bird species
• Maximize wildlife population density	• # of extinctions
• Maximize disturbance to animals	• effective habitat area
Maximize forest health	• disease
• Maximize natural regeneration	• contaminants in timber
• Maximize resilience	• body condition
• Maximize invasive species	• reproductive success
Minimize environmental damage from disaster	• # of wildlife (population)
Minimize oil spill	• # of wildlife tank area
	• # of human animal interaction
	• animal behavioural change
	• change in animal distribution
	• range of movement
	• areas of core habitat protected
	• forest age structure
	• # of stream crossings
	• linear feature density
	• # of reported spills
	• area affected by spills

Participants at the stakeholder workshops in May and June 2013 discussed these objectives and performance measures (around that time we started calling them evaluation criteria instead) in more detail.

A series of technical workshops were conducted with Parties' internal working groups throughout September 2013 to refine the criteria and make sure we had the data to do the calculations. A total of 54 evaluation criteria across economic, ecological, social and cultural objectives were created.



In October, Sam Skinner (Yukon Land Use Planning Council) created a computer model to enable numbers to be generated using the current alternatives maps and zoning system – this model is what's working “behind the scenes” of the table that you see.

At their November meeting, the Commission reviewed the evaluation criteria and eliminated some that were less meaningful or useful for decision-making purposes. They prepared a short-list of 26 criteria, which were discussed again with stakeholders at the December workshop. Participants offered numerous suggestions on which criteria to use. They also cautioned the Commission about using criteria for which we have limited data (or where the level of data is inconsistent throughout the region).

After the final cut in January 2014, we are now down to a short-list of the 20 most useful evaluation criteria (what you see in this package). All of the original 54 are still being calculated in the background – the program lets you turn them on/off depending on which ones you want to see.



We can show you how it works at the public meetings or if you come to our office. None of the other criteria have “disappeared” or are not being considered – we’ve just made sure we’re using the right tools for the job! We’ve shortened the list to those things that are really useful to help us see the differences between alternatives, and why some perform better than others for different values.



Still don’t have your answer? If you would like even more information about the original 54 evaluation criteria, how they are all being calculated, and why we chose the 20 on the short list, please see **Appendix Three: Evaluation Criteria**.

People Don't Make Decisions Based on Data Alone



If you only cared about one thing in the region, you would just look at one line on the table and pick the alternative that performs best as your favorite. But most people don’t make decisions like that. The Commission has to consider all the lines on the table and think about what the consequences of different decisions will be on all those values.



Trade-offs are judgments about how much you would give up on one objective in order to achieve gains on another one. Depending on what you value and how much you are willing to risk, everyone’s decision will be different. That’s why we **DON’T** ask: what’s more important, the environment or the economy? Cultural sites or mining revenues? But we **DO** ask: which alternative offers the **BEST SOLUTION** for this particular decision?



Section Five

Feedback

How to Provide Your Feedback



See yourself in the Dawson plan!

The Commission knows that our decisions and recommendations may directly affect you and the things you care about in the Dawson region. That's why it's important we hear what you think. We hope that this package has given you enough information to understand how we created these alternatives. We value what you have to say!

Here's how you can get the information package:

- Download it from our website
- Pick up a printed copy at our office in Dawson or at the Yukon Land Use Planning Council office in Whitehorse (Suite 201, 307 Jarvis St.)
- Ask us to mail you a printed copy
- Pick up a printed copy at one of the public meetings



And here's how you can get your feedback to the Commission:

- Answer the survey questions on paper, and mail/e-mail it back to us or give it to us in person
- Answer the survey questions online (go to our website)
- See us in person at our office or phone us – we can review the package with you and write down your comments
- Come to the public meetings – we will record any comments you make, whether it's at the microphone or one-on-one with staff or Commission members
- Send us your recorded audio or video comments



We created the survey questions to focus on information that will help the Commission make their decisions (and help us organize all the feedback so we can report back). But it's OK if you only want to answer some of the questions, or if you would rather just provide more general comments.





The public meetings are on **February 7th in Whitehorse** (Old Fire Hall, 1105-1st Ave) and **February 12th in Dawson** (Yukon Order of Pioneers Hall, 2nd Ave & King St.). Both events will be open from 10am-8pm, and will have presentations at 12 noon, 5pm and 7pm.



Can't make it? Don't worry - there won't be any new information presented that is not in this package. However, the public meetings will be a great opportunity to:



- Meet the Commission members and staff in person
- Listen to a presentation about the alternatives, how they were created, and how your input will be used to help the Commission make decisions
- Look at the maps and other package information in larger, poster-size formats
- See how the decision framework works (interactive – we'll have a computer set up where you can see how the program helps you compare alternatives)
- Ask questions directly to the Commission (and get answers)
- Listen to what other people have to say



So we hope to see you there!

What will happen to all the feedback? How will the Commission use this information?

These alternatives are not being presented as the only options available, and you are not being asked to “choose one”. Instead, we've provided what we think is a good range of alternatives that will encourage discussion and generate new ideas.



We will not be calculating the results of “voting” on these alternatives to make our decision. We do want to hear about the parts of each alternative that you like and don't like (and more importantly, WHY).



After the review period is over, Commission staff will look at all the feedback we received and prepare a “What We Heard” summary report. This will be available to everyone online through our website, or you can ask us for a printed copy. A separate part of the report will have all the completed survey forms (handwritten and online submissions); comments recorded at public meetings; and any other comments we received (general letters, e-mails, or in person) – this will also be available to everyone.





The Commission will meet in late March 2014 to review this report, and we will carefully consider everything we have learned and heard.

Then we will decide on one map for the region (a “preferred alternative”) that will become the basis for the Draft Plan. It may be a slightly different version of one of the alternatives in this package, or it may be a completely new idea.



The Commission knows that difficult choices and trade-offs will have to be made, but we also believe that creative solutions are possible.

Thank you for helping us!



Survey and Comment Form

1. Before this public review and feedback period, were you aware of the Dawson regional planning process
 - a. Yes, I have attended other meetings/workshops
 - b. Yes, I had heard of it but have not been involved in any previous events or provided feedback
 - c. No, I didn't know about it
2. How did you hear about this public review and feedback period for the plan alternatives? (Choose all that apply)
 - a. Newspaper advertisements
 - b. Newspaper articles
 - c. TV Rolling ads
 - d. DRPC Website
 - e. Facebook
 - f. Organization you belong to or associate with
 - g. Word of Mouth
 - h. Other _____
3. Where do you reside?
 - a. Yukon
 - b. Canada
 - c. International
4. Do the zones used in the proposed land designation system adequately explore a range of conservation options?
5. Do the zones used in the proposed land designation system adequately explore a range of development options?

6. Please describe any changes you would make to the proposed land designation system.

7. When considering Alternative A, what elements do you like and why?

8. When considering Alternative A, what elements don't you like and why?

9. When considering Alternative B, what elements do you like and why?

10. When considering Alternative B, what elements don't you like and why?

11. When considering Alternative C, what elements do you like and why?

12. When considering Alternative C, what elements don't you like and why?

13. When considering Alternative D, what elements do you like and why?

14. When considering Alternative D, what elements don't you like and why?

15. When considering Alternative E, what elements do you like and why?

16. When considering Alternative E, what elements don't you like and why?

17. Is there other information you feel should have been considered in the development of the plan alternatives?

18. How did this information package help you understand the Dawson planning process and the plan alternatives?
- a. Difficult to understand, not helpful at all
 - b. Difficult to understand, somewhat helpful
 - c. Somewhat easy to understand, answered some of my questions
 - d. Easy to understand, answered most or all of my questions

19. What other information would have been helpful to have in this package?

20. Do you have any additional comments or suggestions for us?

Thank you for taking the time to fill out the survey and comment form - we appreciate your feedback!



Section Six

Next Steps

Next Steps



What will be in the Draft Plan?

You may still have some unanswered questions, or concerns about how certain issues will be addressed. We will be working on many of these things over the next few months as we write the Draft Plan. The plan will have an introduction that talks about the planning process, and describes the Dawson region and all its important values. There will also be more complete information on:

Land Use Designation System

We will have a more detailed description of all the zones and what they mean. For example, we might have cumulative effects indicators and threshold levels for the Integrated Management Area (IMA) zones, or other recommendations on what kinds of activities can happen in each zone.



Landscape Management Unit (LMU) Descriptions

There will be about two pages for each LMU, describing its physical characteristics and what specific resource values it contains. It will tell you what kind of zoning has been applied to that LMU, and why the Commission decided that way. There will also be a section for any **Special Management Considerations** – these are recommendations that we are making only for that particular LMU. For example, there may be a small area within an LMU that contains important wildlife habitat or a rare plant species – through Special Management Considerations, we can make sure those things are protected while zoning the rest of the LMU to allow a higher level of activity. The total number of LMUs and some of the names or boundaries might also change as we look at them more closely.



General Management Directions (GMDs)

This part of the plan will talk about any recommendations, strategies, priorities, or best management practices that will help the Parties achieve the goals of the plan. Some GMDs will apply to the whole planning region. Others might only apply to specific zones, resource values, or types of land use activities.

Here are some examples of GMDs the Commission might make:



- Recommendations on priority areas for conservation or legislated protected areas
- Ways to promote sustainable economic development in the region
- Promotion of industry best management practices
- Recommendations on trans-boundary issues like salmon

- Recommendations on access and transportation (for example, promoting the use of shared access routes, winter roads and narrow trails to reduce disturbance on the landscape)
- Ways to promote integrated resource management (for example, ways that the forestry industry could use the timber from roads or site clearings made by other industries)
- Recommendations on how to reduce or avoid disturbance to fish and wildlife, such as seasonal or timing windows for activities
- Ways to ensure protection of cultural and heritage values throughout the region
- Ways to promote traditional economic activities
- Ways to consider potential impacts of climate change
- Recommendations for activities occurring in or near major rivers and streams
- Recommendations for policy and/or regulatory changes – to highlight the importance of a specific issue, provide necessary information for monitoring, or to reinforce the management intent of a specific zone
- Recommendations for additional research – to fill information gaps, improve management decisions, or better understand a certain issue
- Recommendations for more detailed sub-regional planning (for example, the Yukon River Corridor, Dempster Highway corridor, or community areas)



Implementation and Revision

This section will describe who is responsible for implementing the plan (putting it into action), when it should be reviewed, suggestions for things to consider during the review, and how any changes will be made. The Commission can also recommend what things should be monitored, or how we'll be able to tell that the goals and objectives of the plan are being accomplished.

When will the Draft Plan be ready?

Our current schedule says that the **Draft Plan will be completed by April 30, 2014**. There will be a two-month review period (May and June) that will have very similar steps to this one. We will have public meetings in Whitehorse, Dawson and Old Crow and will collect all the feedback into another "What We Heard" report.



Then what?

The Commission will meet in the summer of 2014 to review the report and carefully consider all the information. We will make any changes that we think are necessary, and that will become the **Recommended Plan** that goes to the Parties (right now this is scheduled to happen **by the end of September 2014**).



The Parties then conduct their own consultations before deciding whether to approve, reject or modify the plan (accept it with some changes).

If one or more Parties do not approve the Recommended Plan, the Commission will come back to talk about it again, make more changes and write a **Final Recommended Plan**.

Then the process would repeat again— more consultations and the Parties decide to approve, reject or modify.

Throughout the rest of the planning process

We will keep you informed about our work through updates on our website, media stories, and posters or newsletters. We will advertise our regular Commission meetings (we alternate between Dawson and Whitehorse), so you can come and listen or you can make a special request to talk to us.



There is always an open door at the Dawson office, and you can stop by or call us any time. Groups or organizations can also ask for us to give them an update or a presentation on our work. We will continue to work directly with the Parties and key stakeholder groups to resolve issues and get more focused input on certain topics.



We are committed to an open, transparent decision-making process. We will openly share all the information we are using and all the comments we receive. We will show how it is being used in our work, and honestly communicate the reasons for our decisions. We want everyone to feel that their participation and efforts are valued and worthwhile.





Section Seven

Appendices

Appendix One: Dawson Regional Resource Summary

Please Note:

The *Resource Assessment Report* and summary maps of all known resource values are available on the DRPC website at <http://dawson.planyukon.ca>. The following summaries are provided as background material to help you evaluate the plan alternatives. This knowledge represents “best available information” during the time the *Resource Assessment Report* was prepared (2011-2013).

Riparian Corridors

Riparian zones are the complex and productive areas where the land meets the water along rivers and creeks. Key riparian zone types in the planning region include mature white spruce forests; balsam poplar forests; riparian wetlands such as sloughs, oxbows, and marshes; well-developed deciduous shrub habitats; rare plant communities (e.g., spiked saxifrage); year-round open water (ice-free) areas; fish spawning and overwintering habitats; and hydrological components of creek and river systems.

Two river corridors in the planning region (Yukon and Stewart rivers) have a complex mix of values – ecological, heritage, subsistence, recreational, and economic/industrial (e.g., agriculture, road and ferry crossings, rights of way, and barge routes). The Yukon River features habitats and species that are not found elsewhere in the region. The river is important to salmon, and other key wildlife habitat includes raptor nests, moose calving areas, thinhorn sheep ranges, mineral licks, and waterfowl and bird nesting areas. The Stewart River also supports exceptional fish and wildlife populations. Other key river corridors in the region include the White, Klondike, North Klondike, Sixty Mile, North Ladue, Forty Mile, Tatonduk, Fifteen Mile, Chandindu, Whitestone, and Hamilton Creek.

Other considerations for river corridors include views from the rivers for recreational travellers in boats; wildlife habitats and travel routes from areas uplope; and noise buffers from potential transport corridors nearby.

Caribou Ranges

The combined ranges of four caribou herds cover nearly the entire Dawson planning region except the southeast. Key areas for the barren-ground Porcupine herd (population estimate 169,000 in 2010, trend unknown) and Forty Mile herd (56,509 in 2010, slowly increasing) are calving grounds and winter range. Key areas for the non-migratory northern mountain Hart River herd (2,200 in 2006, trend unknown) and Clear Creek herd (900 in 2001, stable) are winter range, migration corridors and rutting areas.

Most caribou key areas in the Dawson planning region were identified near and east of Tombstone Territorial Park (mountain caribou) and west of Dawson (Forty Mile caribou). The Forty Mile herd used to occupy the entire southwest Yukon and if herd growth continues, it is expected to begin re-occupying its former range. Barren-ground herds require trans-boundary perspectives in habitat management, and woodland caribou (northern mountain population) are listed as “Special Concern” under the federal *Species At Risk Act* (SARA). A joint Government of Yukon and First Nations working group, the Forty Mile Caribou Herd Working Group, recommended a series of habitat protection measures in 2009 including habitat suitability mapping, wildfire management, and best practices to minimize impacts of human land use activities and address cumulative effects.

Moose Habitat

Southeast of Dawson City supports one of the higher densities of moose in the Yukon. Most moose surveys within the planning region have been conducted in this area. The northern and southernmost areas of the region have not been surveyed, and all surveys were conducted in early or late winter. No location data exists for spring, summer or fall.

The moose population in the Dawson survey area appears to be stable or increasing from 2002 to 2008 (density estimate 264 moose/1000 km²), and stable or in slow decline since 1989 in the Dawson West survey area (174 moose/1000 km²). Very few moose key habitat areas have been identified in the region. Late winter is considered a critical time for moose because of limited access to food and susceptibility to predation in deep snow. However, in most areas around Dawson, the average annual snowfall is not deep enough to cause moose to move to late winter range. Significant snowfall may only occur once every ten years, but then late winter range is critical for survival. Late winter habitat typically consists of bands of shrubs and aspen near rivers that are next to upland mature spruce forests, where the dense spruce canopy intercepts a significant amount of snow.

Conservation Areas

Species at risk require protection of critical habitats. Within the planning region seven mammals, one fish, and 23 bird species have status under SARA and/or the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). This includes Woodland Caribou (northern mountain population), Grizzly Bear, Wolverine, Bering Cisco, Horned Grebe, Short-eared Owl, and Rusty Blackbird that are listed as “Special Concern” under COSEWIC and/or SARA, and three additional bird species (Common Nighthawk, Olive-sided Flycatcher, and Peregrine Falcon) that are listed as “Threatened.”

Mammal species at risk are generally habitat specialists and therefore represent high value or unique habitats. The Ogilvie Mountain collared lemming is found only within the Tombstone area, and the distribution of other rare mammals (e.g., collared pika, pygmy shrew, other shrew species, woodchuck, hoary marmot, and wolverine) is poorly understood. Large portions of the planning region were not glaciated in the Pleistocene and support insect species found nowhere else in Canada and the world.

Ecologically important areas, or “hotspots” in the planning region include areas with dolostone or limestone dominated bedrock that were unglaciated; unglaciated areas greater than 1300m in elevation; known locations of tracked plants (of conservation concern); locations of rare plant and animal species; locations of known wildlife mineral licks; all wetlands; intact forest greater than 140 years old; and other areas identified as important through traditional and local knowledge.

Conservation assessments generally refer to ‘coarse filter’ and ‘fine filter’ components. Coarse filter is the attempt to capture representation of all ecosystems and all components of biodiversity within single or multiple landscapes at a spatial scale that encompasses ecological processes. Fine filter is the attempt to capture specific elements of biodiversity that are either not captured in the coarse filter, or deserve extra site-specific attention beyond the high priority landscapes identified by the coarse filter, such as a population of rare plants or a mineral lick.

Watersheds

The portion of the planning region south of Dawson City (e.g., Klondike Plateau, northern edge of Dawson Range) lacks the extensive limestone that characterizes the north, and therefore has a distinctly different ecology. This area also supports a unique assemblage of species, particularly plants, that is not represented to the north. Intact sub-watersheds in the southern area with high conservation values include the North Ladue River, Indian River, Sixty Mile River, and Matson Creek.

Access Corridors

Access is a common interest of all land users. Proximity to access is a cost factor for the economic development of most resources. Proximity to access corridors may also be a factor for conservation objectives, such as minimizing the impact of linear features on habitat value for caribou. Existing levels of linear and surface disturbance in the region are highest in the Goldfields, especially in the vicinity of gold-bearing creeks. Landscape Units (LUs), as defined in the *Dawson Forest Resources Management Plan*, located in the Goldfields have levels of surface disturbance

approaching 4%. In contrast, the LU in which hard rock mining is occurring around Brewery Creek has a smaller footprint, less than 0.2%.

Roads developed to areas of mining activity can make exploration of nearby areas more feasible. For example, a substantial increase in placer staking activity in the Lower Stewart occurred during the 2009 season. This was fueled in part by exploration on the nearby White Gold hard rock gold discovery north of Thistle Creek. An access road was constructed to the property from Thistle Creek, improving access for nearby placer exploration. Also, recent placer mining development in the lower Sixtymile River drainage includes several kilometres of road and an airstrip. This improved access is favourable for increased development and testing of nearby drainages such as Twenty Mile Creek and Thirteen Mile Creek, as well as the upstream reaches of the Sixtymile River.

Roads constructed for accessing mineral resources are also often used by others (e.g., for timber or wildlife harvesting). Few all-season roads exist in the region, and many areas of resource potential are isolated from roads and other infrastructure.

A Conceptual Study to Identify Natural Resource Infrastructure Access Corridors (2003) was commissioned by YG Energy, Mines and Resources a decade ago to look at the probable location for access corridors, based on understandings at that time about potential resource developments. The study did not propose routes; rather, it was a computer exercise aimed at large-scale engineering considerations should roads be constructed within potential access corridors. The study depicts several potential corridors within the Dawson Planning Region, to provide access to potential mineral development areas in the southern portions of the region or to access oil and gas basins in the Kandik and Eagle Plain basins to the north. The recent interest in the White Gold district came after this study was completed.

Water access – The Yukon River is the major navigable waterway in the region and an important access corridor. Barge transportation of fuel and supplies provides an economical option for seasonal resource industry activity, and seasonal ferry service across the river links Dawson City to the Top of the World Highway and Alaska. The Yukon River, Klondike River, and others in the region are also important access corridors for subsistence harvesting and recreational opportunities. Various landing sites and docks are also associated with water access.

Air access – The Dawson community airport has scheduled Air North daily passenger service to and from Whitehorse, Inuvik and Old Crow. Yukon government also manages airstrips at Chapman Lake and McQuesten Field. Air transportation via fixed wing planes, float planes, and helicopters is vital for the movements of people, fuel, goods and supplies for numerous resource sectors (e.g., minerals, oil and gas, wilderness tourism, and big game outfitting). Associated infrastructure includes remote airstrips, float plane landing sites, and helicopter pads.

Mining Activity

Hard rock mineral exploration is a significant economic activity within the region. Estimated expenditures within the Dawson region for 2010 to 2011 was in excess of \$45 million. Roughly one-third of currently active or pending quartz claims (as of November 14, 2012) have been staked since the start-up of the Commission. Mineral claims in good standing cover about 24% of the region (June 2011). Brewery Creek is the only active mine within the region, with the company pursuing permits for operation of the gold mine until 2021.

Placer claims in the Dawson region total approximately 1,100 km² and include the drainages of the Klondike River, Indian River, west Yukon (Fortymile and Sixtymile rivers and Moosehorn Range River), and lower Stewart River. More than 1,900 km of placer streams (major gold-bearing streams with significant mechanized placer mining operations) are found within the region. During the period from 2007 to 2009, more than 87% of total Yukon placer gold production came from the unglaciated districts of the Dawson region. The Indian River is the top gold producing drainage in the Yukon, yielding nearly 28,936 ounces over the 2010 and 2011 seasons.

Mineral Potential

Mineral potential assessments completed by Yukon government utilize a variety of data such as bedrock geology, stream sediment geochemistry, and mineral occurrences to rank land tracts that have a common geology. The Mineral Potential Assessment prepared for the Dawson planning region evaluated the potential amount of 22 mineral commodities associated with 36 deposit types in 67 tracts. For comparative purposes, relative mineral potential of tracts may be characterized using the combined dollar value for the estimated tonnage of all mineral types. The confidence that can be placed in the calculated values for each tract varies according to the amount of information available for the tract, and the deposit types being estimated. Based on estimates of discovered and undiscovered resources, the combined value of all deposits within the Dawson region (at current prices) exceeds \$120 billion. Gold is by far the most significant metal in terms of economic importance, in both hard rock and placer deposits, and accounts for most of the 365 known mineral occurrences documented within the region.

Forests

The forests of the planning region, shaped largely by wildfire, provide a diversity of habitats for birds and wildlife as well as representing social and cultural landscapes and harvest opportunities. Timber is harvested locally for both fuelwood and sawlogs, with annual allowable cuts for the region set by Yukon government's Forest Management Branch (currently set at 5,000 m³). Harvesting of non-timber forest products, such as berries and mushrooms, also occurs in the region. Activities occurring in forested areas of the planning region include photography, nature viewing, hiking, bird watching, wildlife viewing, paddling, trail riding, cross-country skiing, snowmobiling, dog-sledding, hunting and trapping.

Tourism

The Dawson region is an important destination for visitors to the Yukon. Well-known historical and cultural attractions, along with wilderness destinations such as the Yukon River, Tombstone Territorial Park, and road-accessible tundra landscapes, continue to attract visitors. Dawson City is a critical component of the region's tourism sector. With well-established attractions, accommodation, infrastructure and other tourism services, Dawson is a destination for nearly all highway and backcountry visitors and is an important factor for tourism growth in the region. The Yukon River's blend of scenery, wildlife and history as well as easy access and paddling make it the most popular canoe route in the Yukon and in Canada's north. In the planning region the route features remote wilderness, wildlife viewing, camping spots, and sites and features that showcase both First Nations and Klondike Gold Rush history. While most tourists visit in the summer, Dawson has a growing winter tourism season anchored by outdoor and cultural events that attract both visitors and media (e.g., Yukon Quest, Fulda Challenge, Arctic Ultra, and Trek Over The Top).

Tourism is a resource-based industry, and continued success and growth depends on maintaining those resources. Areas which could potentially be impacted by other land use and development activities include aesthetics, water quality and safety considerations along the Yukon River corridor; Tombstone Territorial Park values; guided hunting activity values of wilderness and wildlife; scenic views and access to recreational activities (particularly Dempster Highway and Yukon River corridors); and impacts of new ground access on the Yukon Quest route (e.g., Dawson Trail may have potential for all-season access to the White Gold mining area).

Recreation

EDI Environmental Dynamics Inc. prepared a report for Yukon Parks in 2010 entitled *Klondike Regional Plan: Outdoor Recreation Data Review*. Major areas for recreation activities were summarized in the following categories: Dawson City Area and the Klondike River; Yukon River Corridor; Top of the World Highway; and Tombstone Territorial Park and the Dempster Highway. The region is a significant destination for recreational activities in both summer and winter. Summer activities include hiking, canoeing, fishing, motorboat touring, mountain biking, hunting, wildlife viewing, berry picking, photography, and 4WD/ATV touring. Winter activities include snowmobiling, cross-

country skiing, dog sledding, skijoring, snowshoeing, downhill skiing and snowboarding.

Potential areas for new or expanded recreation activity in the region include the Yukon River Corridor and Forty Mile area; Ogilvie Mountains and Dempster Highway Corridor; Yukon Ditch trail network; and Top of the World Highway. The Yukon River is especially significant and the remote North Ogilvie Mountains are also identified as particularly outstanding with potential for hiking routes and canoeing. Emerging activities include natural and cultural heritage tours, paragliding, and increased winter activities.

Heritage

Heritage resources are defined in the *Historic Resources Act* to include palaeontological (fossil), archaeological (prehistoric) and historic resources. These definitions apply principally to in situ sites or objects. Burial sites are managed under guidelines for the discovery of human remains. Once found, heritage resources are protected under the Act. Inventories of palaeontological, archaeological and historic resources are very limited over most of the region. As of January 2013, there are approximately 139 recorded palaeontological sites in the planning region; 370 archaeological sites; and 750 historic resources sites.

Tr'ondëk Hwëch'in define heritage resources more broadly to encompass all aspects of cultural identity, including language, stories, songs, a connection with the ancestors, beliefs and values shared through generations, and the continuation of traditional land use practices. In this sense, heritage resources include harvestable resources (e.g., fish, wildlife, and plants); natural resources (e.g., migration routes, waterways, mineral licks, and calving areas); medicines; raw materials (e.g., wood, stone, and fiber); place names and stories connecting people, places and events; camps, trails and caches; sacred and burial sites; current subsistence harvesting areas; and traditional knowledge.

The Dawson region is known worldwide for its extensive heritage resources. Palaeontological sites in the region are predominantly Ice Age fossil sites in the Klondike Goldfields. Permafrost enables exceptional preservation of ancient Ice Age biological remains such as DNA and mummified tissue, and the region attracts internationally renowned scientific researchers. Virtually every drainage area that has been mined historically or currently has yielded Ice Age fossils, and additional sites may be expected north of the Tintina Trench in the Ogilvie Mountains (Tatonduk River, Monster River, Ogilvie River).

Archaeological sites are predominantly prehistoric sites spanning the period from the end of the last Ice Age (12,000 years ago) to historic times. Areas around Tombstone appear to have been used for millennia for seasonal caribou harvesting, and the Moosehide site shows evidence of occupations dating back about 9,000 years. Upper drainages of the Tatonduk, Miner, Whitestone, Eagle, Fifteenmile, and Chandindu Rivers are expected to have similar high concentrations of prehistoric sites. Ancient terraces along the Yukon River potentially preserve some of the earliest evidence of human populations in late Ice Age Beringia.

The Dawson region has the highest concentration of historic resources in the Yukon. The majority date from the early 1900s to the late 1950s and most are related to mining, including the Klondike Gold Rush. Sites include the Dawson Historical Complex, Discovery Claim, S.S. Keno, and Dredge No. 4 National Historic Sites; Forty Mile/Chëdä Dëk; Tr'ochëk National Historic Site; Whitehorse-Dawson Overland Trail and associated roadhouse sites; Yukon Ditch system and other ditches; Ridge Road Heritage Trail; and many others. An updated inventory is planned for the 2012 to 2013 and 2013 to 2014 field seasons.

The Dawson Historical Complex along with the Chilkoot Trail National Historic Site, Thirty Mile River, and other sites in Seattle and Alaska form the Klondike Gold Rush International Historical Park, commemorating the shared history. The 'Klondike' is also on the tentative nomination list for UNESCO World Heritage Site designation, recognizing its outstanding universal value.

Appendix Two: What is SDM

Structured Decision Making (SDM) is an organized framework for making defensible choices in situations where there are multiple interests, high stakes, and uncertainty. The SDM process by itself does not identify a solution or select a preferred management option. Instead it actively engages stakeholders, technical experts and decision makers. It provides insight about the decision by clarifying the things people care about, identifying creative alternatives, evaluating how well different objectives are satisfied by different actions, exploring how risky some alternatives are relative to others, and exposing the fundamental trade-offs or choices that need to be made.

SDM helps people make decisions that are value-based (i.e. based on “what matters”), transparent (able to clearly show how and why choices were made), and efficient. It estimates impacts based on best available information, and actively deals with uncertainty. The collaborative process promotes dialogue and debate, and helps people focus on interests rather than positions. It results in trust, learning, and capacity building for future decisions. The SDM process is geared towards finding mutually acceptable alternatives, but consensus on a preferred alternative (although ideal) is not mandatory. The main sources of agreement and disagreement among participants are clarified and clearly documented for presentation to decision makers.

SDM Steps

SDM is based on a common-sense set of core steps to aid decision-making. Learning occurs at each step, and the steps may be iterated (repeated) as required.

A variety of tools and techniques from the decision sciences (e.g. influence diagrams, objectives hierarchies, means-ends diagrams, strategy tables, consequence tables) distinguish SDM from other processes. They are used at each step to help groups deal with complex decisions.

Step 1: Establish process and clarify the decision context

What is the decision to be made and who will make it? What is the scope or limitations of the process and the decision (i.e. what’s in and what’s out)? What are the constraints for the process (timelines, budget, legal issues)? Who needs to be involved in developing solutions, and how will they work together? Decision sketching (running through the SDM steps in a quick overview manner) can help clarify the scope, what information is required, and where resources should be focused throughout the process.

Step 2: Define objectives and evaluation criteria

The core of SDM is a set of well-defined objectives and evaluation criteria that clarifies values (the things that people care about), drives the search for creative solutions, and becomes the framework for comparing alternatives. Objectives are simply a statement of “what matters” and the preferred direction of change (e.g. increase revenues, increase the abundance of salmon, minimize greenhouse gas emissions, minimize impact on grizzly bear habitat). All the things that matter are included as objectives (not just those we have data for, not just those we can measure with a number). There are no “right” objectives, but there are some that are more useful than others for informing a decision.

It is important to separate **fundamental** or **ends** objectives (the outcomes we really care about and are trying to achieve) from **means** objectives (the ways we can achieve the ends). For example, a fundamental objective would



be ‘Maximize air quality’ and a means objective would be ‘Minimize industrial emissions’. To get from means to ends, ask “Why is that important?” To get from ends to means, ask “How could we achieve that?” To clarify hard-to-quantify objectives (e.g. spiritual quality or visual quality), ask “What do you mean by that?” Means objectives can lead you to good alternatives, but *only fundamental objectives should be used to evaluate alternatives*. Other types of objectives can be **process** (e.g. maximize public involvement in the process) or **strategic** (e.g. be consistent with departmental vision).

Objectives and sub-objectives are shown in a hierarchy – this doesn’t mean that some are more important than others, just that they’re organized. At early stages you can eliminate the verb indicating preferred direction.

Objectives are not targets – note the difference between ‘Minimize greenhouse gas emissions’ and ‘Minimize greenhouse gas emissions by 25%’.

A good set of objectives should be complete (all the things that matter are included), concise (no double counting), affected by the alternatives being considered, relevant and understandable to everyone, and ideally independent (the value of one does not depend on any of the others).

Evaluation criteria (sometimes called performance measures) define exactly what is meant by the objective and how it will be measured. They are used to consistently estimate and report the predicted consequences of different actions, for the purposes of making a choice. Evaluation criteria are only useful if they communicate key differences in performance of one alternative over another on a specific objective. Good evaluation criteria are complete and concise, clearly understood by everyone involved (including being explicit about uncertainty), direct (accurately report on the consequences of interest), and operational (the required information can be obtained). They don’t have to be a number!

The goal of this step is to produce one common set of objectives and evaluation criteria that everyone agrees will be used to evaluate the alternatives. ** People may disagree about which objectives matter the most or which alternative is best, but they need to agree on a common structure for making the decision.

Step 3: Develop alternatives

This step is about the search for creative solutions to address what really matters, as defined by your objectives. The range of alternatives should reflect truly different mixes of desired outcomes or different priorities, and present decision-makers with realistic options. It is also important to search for ‘robust’ alternatives that address key uncertainties (i.e. that are flexible enough to accommodate various outcomes, or that perform well across a range of possible alternatives). **Strategy tables** can be used as a ‘menu’ from which to choose combinations of possible management actions.

As you examine the range of alternatives, you can eliminate those that perform poorly for most of your objectives, and combine some elements of the different alternatives to create new ones. Short-listed alternatives should be *small in number but high in quality*. They should be value-focused (designed to address the fundamental objectives), technically sound (based on best available information about cause and effect relationships), and able to expose key trade-off choices.

OBJECTIVE • SUB-OBJECTIVE	EVALUATION CRITERIA
Caribou • Abundance • Distribution	Population # Total habitat area (ha)
Fish • Abundance • Food sources	Population # Benthic biomass (kg)
Cost • To government • To industry	\$ \$
Traditional lifestyles • Navigation routes • Ceremonial sites	Fall/spring navigability # of sites affected



Step 4: Estimate consequences

This step links objectives, evaluation criteria, and alternatives into a consequence table (created as an Excel spreadsheet) to show the impacts of various alternatives on the things that matter.

Actually, the consequence table is a very useful way to summarize the information you need to compare options and make a decision. It helps you narrow your focus to the critical areas where trade-offs need to be made, and create a shared understanding of how different choices impact different values.

Objectives	Measures	Option A	Option B	Option C
Maximize financial return	Net present value (\$)	\$1,000,000	\$1,250,000	\$850,000
Minimize area of disturbed wetland	Area impacted wetland (ha)	10 ha (+/- 2 ha)	6 ha (+/- 1 ha)	4 ha (+/- 1 ha)
Minimize risk of contaminated soil	Max. potential soil contamination (index)	Medium	Medium	High
Maximize reliability to customers	Length of line near tall trees (km)	14 km	16 km	22 km

In this example, we are looking at Option A and comparing it with Options B and C. Option B performs significantly better (green) than Option A on some of the objectives. Option C performs significantly worse (red) than Option A for all the objectives except one. At this step you need to agree on the preferred direction, otherwise you can't compare whether one alternative is 'better' or 'worse' than another. A good consequence table summarizes the best available information from 'experts' (whether they be scientists, economists, or traditional knowledge holders), is understandable to the entire audience, and highlights any uncertainties.

Step 5: Evaluate trade-offs and make choices

Trade-offs (how much you would give up on one objective to achieve gains on another) are difficult but usually unavoidable. The SDM process requires that participants make explicit choices about which alternative they prefer, based on their own values and their understanding of the values of others. Uncertainty (information we would like to have but don't) and the level of risk associated with certain choices are openly discussed. Other tools such as weighting of evaluation criteria or scoring/ranking alternatives may also be used. Emphasis is on group discussion and collaborative decision-making, and the goal is to find an alternative that achieves a balance across multiple objectives. However, consensus is not mandatory. Areas of agreement and disagreement are documented and presented to decision makers.

Key questions to consider: Are the trade-offs clear enough that you can make an informed choice? Do the trade-offs suggest a new alternative? This is also the time to test your objectives – do they define what really matters to you and others? Test your evaluation criteria – do they help you compare alternatives and decide which one you prefer? If there's a reason why you prefer one alternative over another, is it shown in the table? Would a different choice of evaluation criteria change your decision?

Step 6: Implement and monitor

The challenge at this point is to implement the decision in a way that reduces uncertainty, improves the quality of information for future decisions, and provides opportunities to revise and adapt based on what is learned.

Want to learn more about sdm?

- www.structureddecisionmaking.org
- Gregory, R., L. Failing, M. Harstone, G. Long, T. McDaniels, and D. Ohlson. 2012. Structured Decision Making: A Practical Guide to Environmental Management Choices. (Book available for purchase on Amazon)
- Compass Resource Management Ltd. <http://www.compassrm.com/>
- Also materials provided at 'Introduction to Structured Decision Making' training seminar, April 16-18, 2013.
- Industry Canada. 2011. Triple Bottom Line and Structured Decision-Making: A Case Study of BC Hydro http://www.ic.gc.ca/eic/site/csr-rse.nsf/eng/h_rs00564.html
- Available on the YLUPC website www.planyukon.ca (Go to Workshops – Recent – From Claim to Plan and Beyond, January 30-31, 2013):
 - Structured Decision Making: Overview and Some Examples (presentation by Dan Ohlson).
 - Exploring the opportunity for Structured Decision Making in support of Yukon regional land use planning (discussion paper prepared for DRPC by Dan Ohlson and Lesley Cabott, 2013).

Appendix Three: Evaluation Criteria



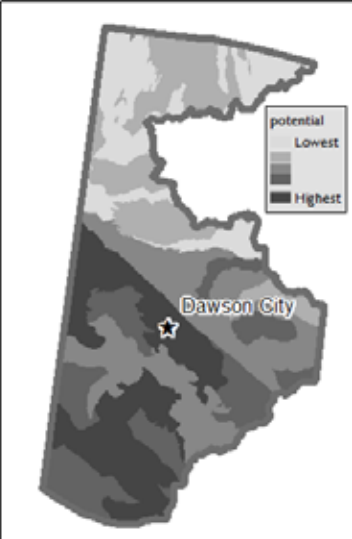
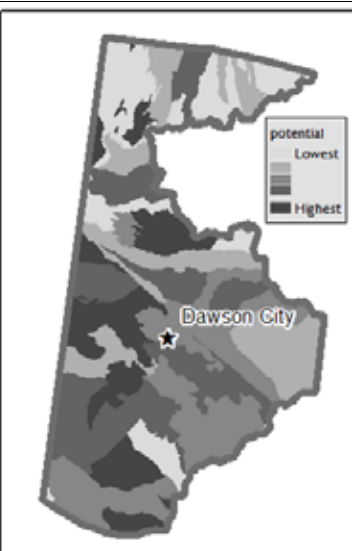
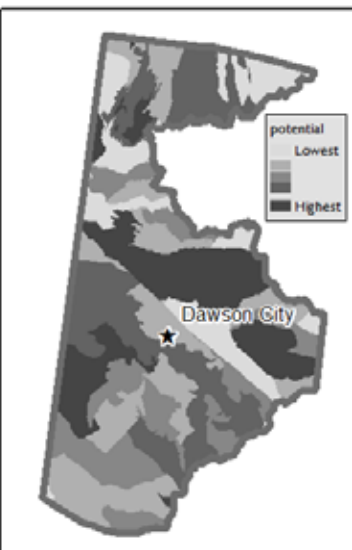
YUKON LAND USE PLANNING COUNCIL



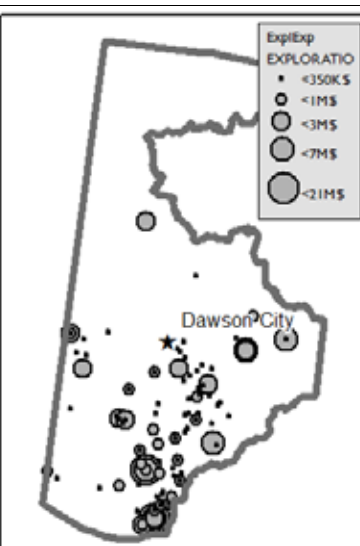


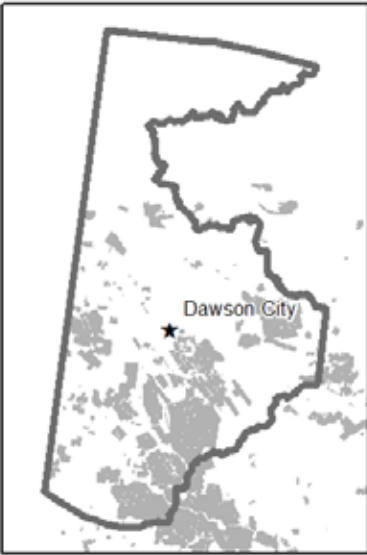
**Dawson Regional
Planning Commission**
Moving Forward • Nān kīic nōā īr ādāi

Evaluation Criteria for The Plan Alternatives (February 2014) Dawson Regional Planning Process

A map of Dawson City, Yukon, showing the city's layout and surrounding areas. The map is labeled 'Dawson City'.	<p>1. Placer potential Values addressed: non-renewable resource development Details: Amount of high placer potential that is not identified salmon spawning habitat How to be reported: % relative to regional total. Status: In consequence table</p>
A map of Dawson City, Yukon, showing the city's layout and surrounding areas. The map is labeled 'Dawson City'. A legend indicates 'Tract Value' with 'Lowest' and 'Highest' categories. A star marks a specific location within the city.	<p>2. Mineral potential Values addressed: non-renewable resource development Details: Amount of aggregate (i.e., combined) mineral potential in How to be reported: % relative to regional total. Status: Short-listed</p>

	<p>3. Gold potential Values addressed: non-renewable resource development Details: Amount of gold potential in \$. How to be reported: % relative to regional total. Status: In consequence table</p>
	<p>4. Copper potential Values addressed: non-renewable resource development Details: Amount of copper potential in \$. How to be reported: % relative to regional total. Status: Not in consequence table because copper potential is included in overall mineral potential (Evaluation Criterion #2).</p>
	<p>5. Non-Gold potential Values addressed: non-renewable resource development Details: Amount of non-gold potential in \$. How to be reported: % relative to regional total. Status: Not in consequence table because non-gold potential is included in overall mineral potential (Evaluation Criterion #2).</p>

 <p>A map of the Dawson City area showing the outline of the city and surrounding regions. A star marks Dawson City. The map is used to illustrate the distribution of oil and gas basins.</p>	<p>6. Oil & Gas basins Values addressed: non-renewable resource development Details: % of regional total amount of oil and gas basins by area How to be reported: % relative to regional total. Status: In consequence table</p>
 <p>A map of the Dawson City area showing the outline of the city and surrounding regions. A star marks Dawson City. The map is used to illustrate the distribution of accessible oil and gas basins.</p>	<p>7. Accessible Oil & Gas basins Values addressed: non-renewable resource development Details: % of regional total amount of oil and gas basins within 10km of access of all season roads, major rivers. How to be reported: % relative to regional total. Status: Not in consequence table because oil & gas values are caught in the criterion above.</p>
 <p>A map of the Dawson City area showing the outline of the city and surrounding regions. A star marks Dawson City. The map is used to illustrate the distribution of recent exploration spending. A legend titled 'Exp/Exp EXPLORATIO' shows five levels of spending: <350K\$, <1M\$, <3M\$, <7M\$, and <21M\$.</p>	<p>8. Recent exploration spending Values addressed: non-renewable resource development government revenue & spending Details: \$ spent on exploration 2008-2013. How to be reported: % relative to regional total. Status: Not in consequence table because this criterion is influenced by exploration efficiency & market forces making it less predictive. Comments: Captures a measure of Class I work.</p>



9. Current # Quartz Claims

Values addressed: non-renewable resource development

Details: # current (active September 2013) quartz claims

How to be reported: % relative to regional total.

Status: Not in consequence table because hard-rock mineral potential is captured explicitly in #2, and because this criterion reflects past conditions.



10. Peak # Quartz Claims

Values addressed: non-renewable resource development

Details: # peak (active October 2012) quartz claims

How to be reported: % relative to regional total.

Status: Not in consequence table because hard-rock mineral potential is captured explicitly in #2, and because this criterion reflects past conditions.



11. Current # Placer Claims



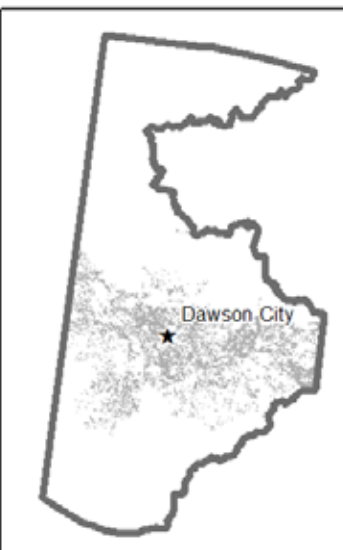
Values addressed: non-renewable resource development

Details: # current (active September 2013) quartz claims

How to be reported: % relative to regional total.

Status: In consequence table.

Comments: Placer claims are kept for longer terms, and are closer linked to resource development (rather than exploration).

 <p>A map of the Dawson City area showing the locations of peak placer claims. The claims are indicated by small black dots scattered across the region. Dawson City is marked with a star and labeled.</p>	<p>I2. Peak # Placer Claims Values addressed: non-renewable resource development Details: # peak (active October 2012) quartz claims How to be reported: % relative to regional total. Status: Not in consequence table because placer values are captured in #11 above.</p>
 <p>A map of the Dawson City area showing the Forest Resource Management Zone. The zone is shaded in gray and covers a significant portion of the region. Dawson City is marked with a star and labeled.</p>	<p>I3. Forest Resource Management Zone: Values addressed: economic diversity renewable resources development Details: Amount of Forest Resource Management Zone (Dawson Forest Resources Management Plan). How to be reported: % relative to regional total. Status: Not in consequence table because forest values are captured with criteria #14 & 19.</p>
 <p>A map of the Dawson City area showing the Forest Resource Management Zone with older trees. The zone is shaded in gray and covers a significant portion of the region. Dawson City is marked with a star and labeled.</p>	<p>I4. Forest Resource Management Zone with older trees Values addressed: economic diversity renewable resources development Details: Amount of forest in the Forest Resource Management Zones with age ≥ 70 (or age ≥ 60 where lead species is birch). How to be reported: % relative to regional total. Status: In consequence table. Thought to be more informative than the criterion above.</p>



15. High value hiking

Values addressed: economic diversity | renewable resources development

Details: Amount of high value hiking areas

How to be reported: % relative to regional total.

Status: Not in consequence table because it is somewhat redundant and more narrowly focused than the following criterion.



16. High value recreation features

Values addressed: economic diversity | renewable resources development

Details: Amount of high value recreation features

How to be reported: % relative to regional total.

Status: In consequence table



17. Big game outfitting concessions

Values addressed: economic diversity | renewable resources development

Details: Amount of Big game outfitting concessions

How to be reported: % relative to regional total.

Status: Not in consequence table. This criterion is somewhat redundant with #45 Sheep Wildlife Key Areas.



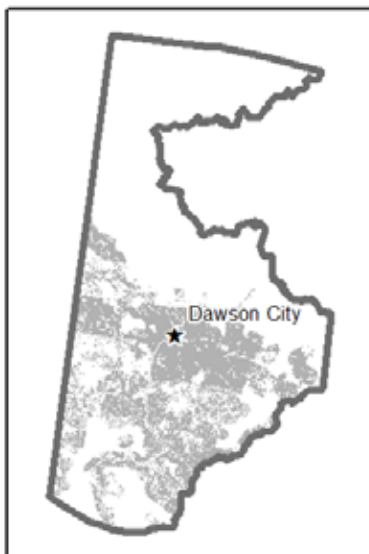
18. Aboriginal trapping concessions

Values addressed: traditional economy | stewardship and learning | economic diversity | renewable resources development

Details: Amount of trapping concessions belonging to First Nations people/beneficiaries (group + individual)

How to be reported: % relative to regional total.

Status: In consequence table



19. Non-timber forest products:

Values addressed: traditional economy | economic diversity | renewable resources development

Details: Amount of forest within 5km of all access features (incl. trails) and major rivers.

How to be reported: % relative to regional total.

Status: In consequence table



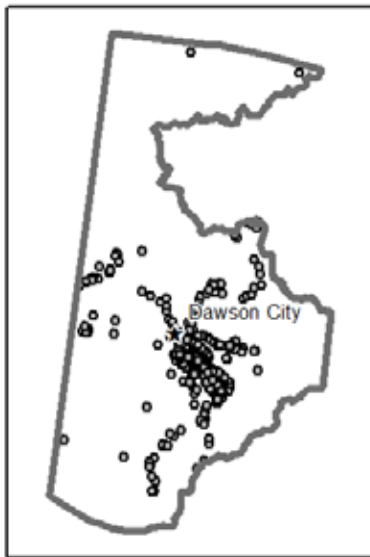
20. Heritage Routes

Values addressed: TH, VGFN and Dawson heritage and cultural resources

Details: UFA/FA Routes + other trails

How to be reported: % relative to regional total.

Status: In consequence table



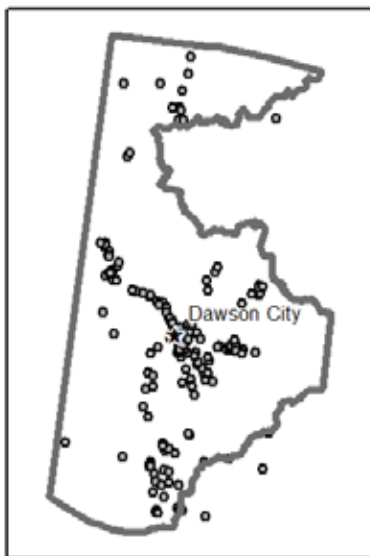
21. Historic Sites

Values addressed: TH, VGFN and Dawson heritage and cultural resources

Details: All historic sites collected by YG as of 2013, regardless of historical land use.

How to be reported: % relative to regional total.

Status: Not in consequence table because historic sites are already protected with their own legislation and because they are closely linked to mining history (and potential).



22. Cultural Sites

Values addressed: TH, VGFN and Dawson heritage and cultural resources

Details: Selected archeological sites + other TH Heritage points (non archeological) + heritage place names of point locations

How to be reported: % relative to regional total.

Status: In consequence table



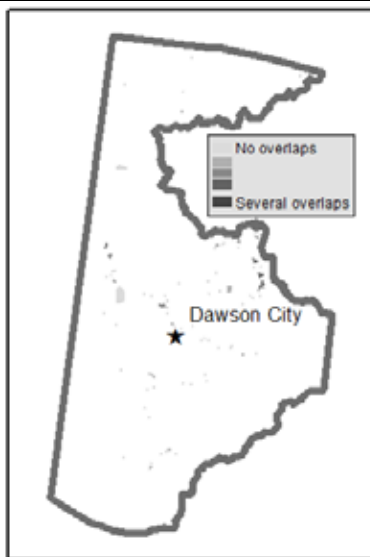
23. Place Names

Values addressed: TH, VGFN and Dawson heritage and cultural resources

Details: Heritage place name locations (for areas, not points or linear features)

How to be reported: % relative to regional total.

Status: Not in consequence table because of limited extent and variation among alternatives.



24. Tr'ondëk Hwëch'in merged heritage value

Values addressed: TH heritage and cultural resources

Details: Small areas of many overlapping Tr'ondëk Hwëch'in heritage values.

How to be reported: % relative to regional total.

Status: In consequence table



25. Viewscapes from Cultural Routes

Values addressed: TH heritage and cultural resources, scenery

Details: Viewscapes from selected road and rivers travel routes

How to be reported: % relative to regional total.

Status: In consequence table



26. Viewscapes from Tourism and Recreation Routes

Values addressed: Recreational value | economic diversity | renewable resources development | Scenery

Details: Viewscape from combined Yukon River (rough centerline) + Dempster Highway + Top of the World Highway

How to be reported: % relative to regional total.

Status: Not in consequence table because Criterion above based on same data plus more.



27. Rare Landscape Features: old growth

Values addressed: Terrestrial biodiversity | Ecological integrity

Details: Extent of "old growth" boreal forest (≥ 140 years old)

How to be reported: % relative to regional total.

Status: Not in consequence table because it was "rolled-up" into #33.



28. Rare Landscape Features: high unglaciated terrain

Values addressed: Terrestrial biodiversity | Ecological integrity

Details: Extent of high ($> 1300\text{m a.s.l.}$) unglaciated terrain

How to be reported: % relative to regional total.

Status: Not in consequence table because it was "rolled-up" into #33.

Comments:

- Considered to be an important seed source for post-glacial reinstatement of subarctic boreal conifers across western North America



29. Rare Landscape Features: unglaciated dolomite & limestone

Values addressed: Terrestrial biodiversity | Ecological integrity

Details: Extent of unglaciated dolomite & limestone

How to be reported: % relative to regional total.

Status: Not in consequence table because it was "rolled-up" into #33.

Comments:

- support rare plant and insect species



30. Rare Landscape Features: wetlands

Values addressed: Terrestrial and aquatic biodiversity | Ecological integrity

Details: Wetlands as on current base mapping (i.e., Topomaps)

How to be reported: % relative to regional total.

Status: Not in consequence table because it was “rolled-up” into #33.

Comments:

- Ecological hotspots & rare in Dawson Region
- Insufficient data for reporting on different wetland types



31. Rare Landscape Features: waterbodies

Values addressed: Aquatic | biodiversity | Ecological integrity

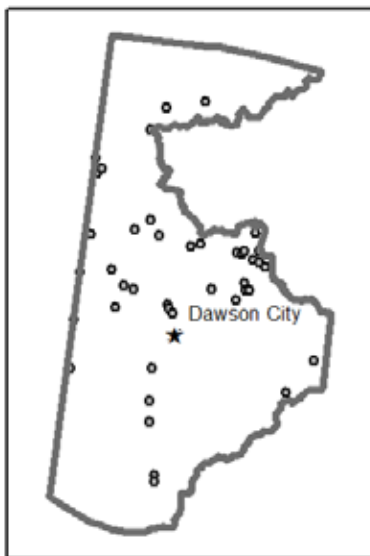
Details: Waterbodies (lakes + wide rivers) as on current base mapping (i.e., Topomaps)

How to be reported: % relative to regional total.

Status: Not in consequence table because it was “rolled-up” into #33.

Comments:

- Include lakes & wide rivers.




32. Rare Landscape Features: rare plant location

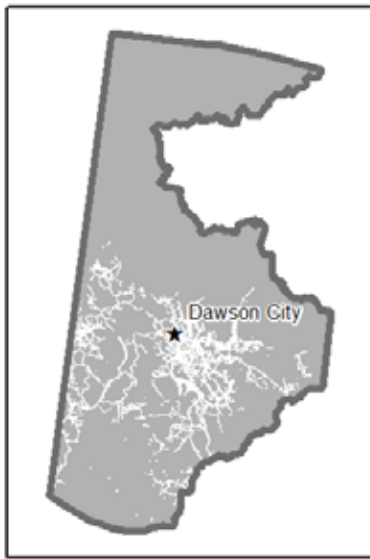
Values addressed: Terrestrial biodiversity | Ecological integrity | Species of special management concern

Details: Locations of all tracked plant species, regardless of global, national or territorial rank

Status: Not in consequence table because it was “rolled-up” into #33.

How to be reported: % relative to regional total.

	<p>33. Rare Landscape Features: number more protected Values addressed: Terrestrial biodiversity Ecological integrity Details: The number of the six ecological Evaluation Criteria above that are above a threshold percentage. The threshold of 50% was selected to best contrast the alternatives. How to be reported: # of the 6 evaluation criteria above with >50% “conserved”. Status: Short-listed Comments:</p> <ul style="list-style-type: none"> This “rolls up” the 6 evaluation criteria above, and may be more informative.
	<p>34. Ecological Land Classification Representation Values addressed: Terrestrial biodiversity Ecological integrity Details: Statistical distance or difference of the ecological land classification distribution in each Ecozone between the whole region and protected areas. How to be reported: Statistical difference from regional distribution. The numbers report how much the protected distribution is the “same” as the regional distribution. A value of “0” indicates that they are exactly the same. The closer to 0, the more representative. Status: In consequence table</p>
	<p>35. Ecoregional Representation for Dawson Region Values addressed: Terrestrial biodiversity Ecological integrity Details: The % of each ecoregion protected is calculated considering only contributions from the region (i.e., the amount protected in the region ÷ the amount in the region). How to be reported: The average % of the six ecoregions. Status: Not in consequence table because the following criterion is more informative. Comments:</p> <ul style="list-style-type: none"> Gives a strictly regional perspective.
	<p>36. Ecoregional Representation for North America Values addressed: Terrestrial biodiversity Ecological integrity Details: The % of each ecoregion protected is calculated considering the continental context (i.e., the amount protected in in and out of the region ÷ the size of the ecoregion). How to be reported: The average % of the six ecoregions. Status: Not in consequence table because of little variation among alternatives.</p>



37. Undisturbed Protected

Values addressed: Ecological connectivity | Ecological integrity | Resilience to climate change

Details: Amount of protected area >500m from disturbance.

How to be reported: % relative to regional total.

Status: Not in consequence table because it is somewhat redundant with the criteria #39 – 41 and #54 below.

Comments:

- 500m buffer was selected considering buffers related to caribou habitat value used elsewhere.

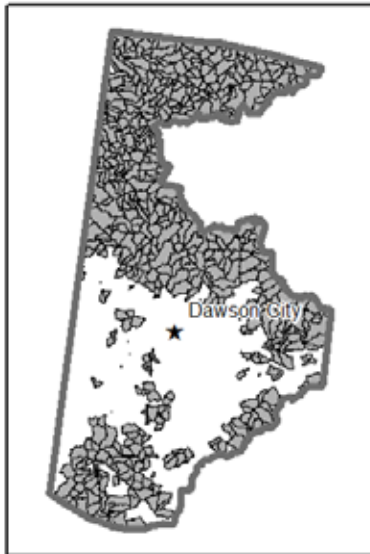
38. Fragmentation of Protected

Values addressed: Ecological connectivity | Ecological integrity | Resilience to climate change

Details: A statistic generated dividing the perimeter of protected areas by their area.

How to be reported: % relative to regional total.

Status: Not in consequence table because of little variation among alternatives.



39. Intact “Third”-order Watersheds

Values addressed: Aquatic ecosystems | Ecological connectivity

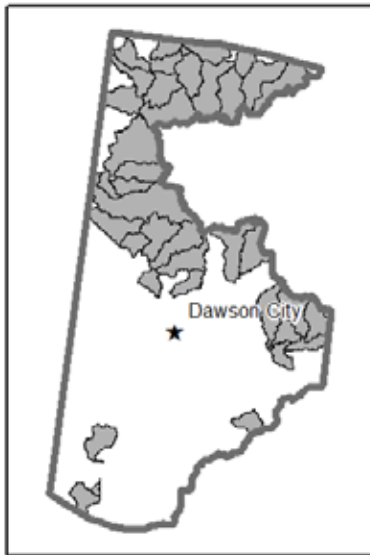
Details: “Third”-order watersheds with no more disturbance than “trails” (linear disturbance <1.5m).

How to be reported: % relative to regional total.

Status: Not in consequence table because it is somewhat redundant with the criteria #54 below.

Comments:

- Based on 1340 watersheds in the region (averaging 33.8 km² each).
- May address aspects of the **Canadian Boreal Initiative’s vision of “benchmarks”**, but their size alone is below what’s recommended for the region’s disturbance regime. However, collections of these watersheds would still be valid.
- The smaller size of these watersheds means that there are some found throughout the region.



40. Intact “Second”-order Watersheds

Values addressed: Aquatic ecosystems | Ecological connectivity

Details: Second-order watersheds with no more disturbance than “trails” (linear disturbance <1.5m).

How to be reported: % relative to regional total.

Status: Short-listed, because it includes watersheds in both the boreal and taiga portions (like #41) of the region, yet the watershed are larger than #39.

Status: Not in consequence table because it is somewhat redundant with the criteria #54 below.

Comments:

- Based on 137 watersheds in the region (averaging 331 km² each).
- May address aspects of the **Canadian Boreal Initiative’s vision of “benchmarks”**, but their size alone is below what’s recommended for the region’s disturbance regime. However, collections of these watersheds would still be valid.



41. Intact “First”-order Watersheds

Values addressed: Aquatic ecosystems | Ecological connectivity

Details: First-order watersheds with no more disturbance than “trails” (linear disturbance <1.5m).

How to be reported: % relative to regional total.

Status: Not in consequence table because it is somewhat redundant with the criteria #54 below.

Comments:

- Based on 24 watersheds in the region (averaging 1887 km² each – slightly more than the average LMU size).
- May address aspects of the **Canadian Boreal Initiative’s vision of “benchmarks”**, as their size alone may approach what’s recommended for the region’s disturbance regime. The larger size of these watersheds means that they are restricted to the more undisturbed northern part of the region.



42. Salmon Habitat

Values addressed: Aquatic ecosystems | Fisheries

Details: The amount of good salmon habitat noted in the placer atlas or as collected in the North Yukon planning process.

How to be reported: % relative to regional total.

Status: Short-listed

Status: Not in consequence table because of project-level placer rules addressing salmon habitat and because it is somewhat redundant with criterion below.



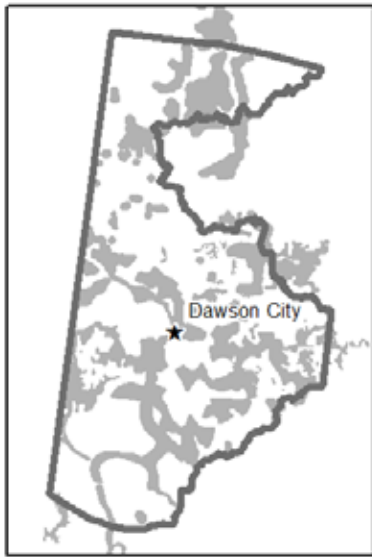
43. Salmon Spawning Habitat

Values addressed: Aquatic ecosystems | Fisheries

Details: The amount of salmon spawning habitat noted in the placer atlas or as collected in the North Yukon planning process.

How to be reported: % relative to regional total. .

Status: In consequence table.




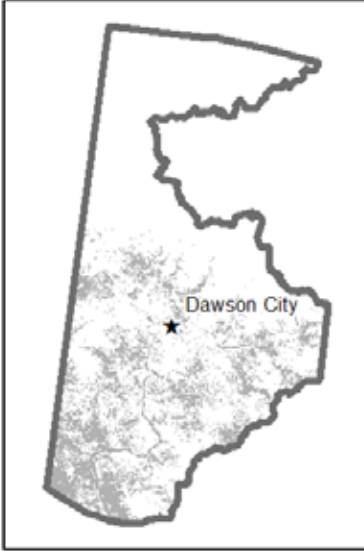

44. Non-sheep Wildlife Key Areas

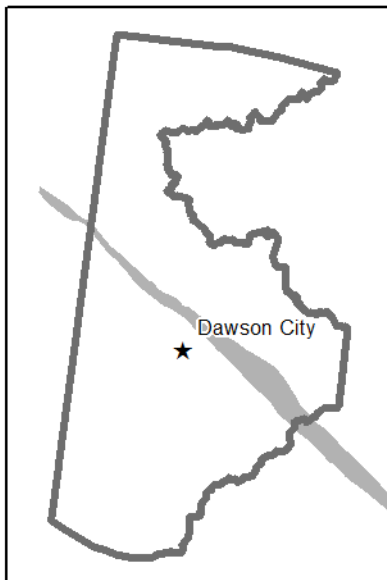
Values addressed: Wildlife | Traditional economy

Details: Wildlife Key Areas for all species except sheep. Winter concentrated use areas for the Porcupine Caribou Herd were also added to ensure representation for each herd.

How to be reported: % relative to regional total.

Status: In consequence table

	<p>45. Sheep Wildlife Key Areas</p> <p>Values addressed: Wildlife Traditional economy</p> <p>Details: All sheep key areas and predicted high value habitat combined.</p> <p>How to be reported: % relative to regional total.</p> <p>Status: In consequence table</p>
	<p>46. Boreal Moose cow & calf habitat</p> <p>Values addressed: Wildlife Traditional economy</p> <p>Details: Amount (km2) of high value habitat.</p> <p>How to be reported: % relative to regional total.</p> <p>Status: Not in consequence table because moose are somewhat resilient to human disturbances and because criterion #44 (non-sheep wildlife key areas) captures moose key areas.</p> <p>Comments:</p> <ul style="list-style-type: none"> • These data don't include moose found in the north of the region (Taiga) •
	<p>47. Boreal Moose (adult) habitat</p> <p>Values addressed: Wildlife Traditional economy</p> <p>Details: Amount (km2) of high value habitat.</p> <p>How to be reported: % of all regional high value habitat</p> <p>Status: Not in consequence table because moose are somewhat resilient to human disturbances and because criterion #44 (non-sheep wildlife key areas) captures moose key areas.</p> <p>Comments:</p> <ul style="list-style-type: none"> • These data don't include moose found in the north of the region (Taiga)



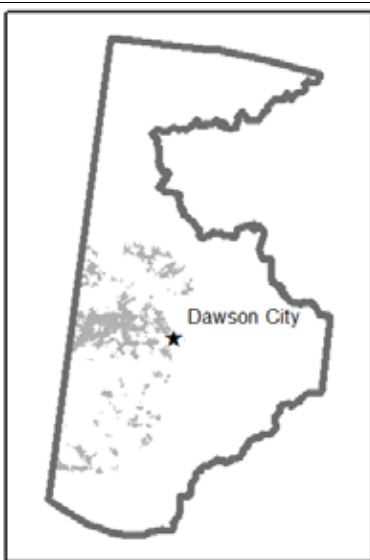
48. Tintina Trench Flyway

Values addressed: Wildlife

Details: Amount (km²) of the Tintina Trench.

How to be reported: % relative to regional total.

Status: Not in consequence table only small pockets of the Tintina Trench is important waterbird habitat.



49. Forty Mile Caribou Herd Good Habitat

Values addressed: Wildlife | Population of special consideration

Details: Amount (km²) of good habitat identified in the habitat model. "Good" will be defined as the top third of the value range.

How to be reported: % of the total "good" habitat of the Forty Mile herd in Canada.

Status: In consequence table, because only one small key area for this herd is captured in #44 Non-sheep Wildlife Key Areas.

Comments:

- Forty Mile Caribou Herd is of population of special consideration, and is gradually reoccupying its former range.
- The range and protected areas in Alaska are not considered.



50. Forty Mile Caribou Herd Range

Values addressed: Wildlife | **Population of special consideration**

Details: Amount (km²)

How to be reported: % of the entire Forty Mile herd range in Canada.

Status: Not in consequence table because redundant and less informative than #49 (Forty Mile Caribou Herd Good Habitat).



51. Clear Creek Caribou Herd Range

Values addressed: Wildlife | Species of special management concern

Details: Amount (km²)

How to be reported: % relative to regional total.

Status: Not in consequence table because key areas for this herd are in #44 Non-sheep Wildlife Key Areas.

Comments:

- The Clear Creek Caribou Herd is herd of Northern Mountain caribou, listed as a species of Special Concern.



52. Hart River Caribou Herd Range

Values addressed: Wildlife | Species of special management concern



Details: Amount (km²)

How to be reported: % relative to regional total.

Status: Not in consequence table because key areas for this herd are in #44 (Non-sheep Wildlife Key Areas).

Comments:

- The Hart River Caribou Herd is herd of Northern Mountain caribou, listed as a species of Special Concern.

	<p>53. Porcupine Caribou Herd Range</p> <p>Values addressed: Wildlife Population of special consideration</p> <p>Details: Amount (km²).</p> <p>How to be reported: % relative to regional total.</p> <p>Status: Not in consequence table to be consistent with #50 – 52, and because the #44 contains concentrated use areas.</p> <p>Comments:</p> <ul style="list-style-type: none"> The range and protected areas in Alaska are not considered.
	<p>54. Benchmark Score</p> <p>Values addressed: Terrestrial biodiversity Ecological integrity Aquatic ecosystems Ecological connectivity</p> <p>Details: Statistical distance or difference of the Ecological Land Classification distribution (#34) in each Ecozone between the whole region and protected portions of Benchmark-like watersheds*. Benchmark-like watersheds are sized between #40 & #41 and >1000km² (~large fire size for the region) and are >75% covered by #39 (Intact 3rd-order watersheds).</p> <p>How to be reported: Statistical difference from regional distribution. The numbers report how much the protected distribution described above is the “same” as the regional distribution. A value of “0” indicates that they are exactly the same. The closer to 0, the more representative.</p> <p>Status: Not yet discussed!</p> <p>Comments:</p> <ul style="list-style-type: none"> Combines elements of #34, 39, 40 & 41 *Real Boreal Ecosystems Initiative benchmarks look at the representation of ~4 coarse scaled enduring features. The ELC can stand in fairly well for these, but is more sensitive to fire and other disturbances. *Real Boreal Ecosystems Initiative benchmarks aim for areas 3x as big as largest expected fire.
	<p>TH & VG Heritage Value</p> <p>Values addressed: TH, VGFN heritage and cultural resources</p> <p>Details: Expert/elder ranking of alternatives in how well they address TH heritage values</p> <p>How to be reported: calculated ranks</p> <p>Comments:</p> <ul style="list-style-type: none"> Alternatives need to be clearly described, including their high level goals and implications on habitat of large game, furbearers, fish, etc. A preliminary consequence table would be needed. Therefore, this evaluation criterion would be done last. <p>Status: Not done.</p>