Upper Smoky

Sub-Regional Plan

MARCH 2025

Classification: Public

Sub-regional Plan - Upper Smoky | Environment and Protected Areas

Contents

Figures

Contents

Introduction

The Upper Smoky Sub-Regional Plan

This plan reflects Alberta's ongoing commitment to responsible resource development. It seeks to maintain a strong economy, resilient communities, and healthy ecosystems. The Upper Smoky Sub-Regional Plan was informed by recommendations of a Ministerial Task Force, launched in 2019, that brought together perspectives from local municipalities, Indigenous peoples and organizations, the energy and forestry sectors, trappers, recreational users, environmental non-government organizations, and other local knowledge-holders and stakeholders.

Alberta's public lands are the foundation for our resource-based economy, community well-being, and traditional land uses. This is a land management plan focused on managing footprint from various land uses to allow economic development in the region while also continuing to improve the overall landscape. The plan recognizes that this region will continue to be a critical contributor to the province's goal to double energy production in Alberta.

The policy direction in this plan is meant to work with, clarify, and build upon existing legislation, regulations, and policies. In the event of a conflict between this plan and existing policy, the direction in this plan takes priority. For areas that require additional guidance, a regulation and guideline documents will be developed. Where the plan, supporting regulation, or guidelines are silent, existing rules continue to apply.

About the Sub-Region

The Upper Smoky Sub-region (Figure 1) is located south of Grande Prairie and encompasses Grande Cache, Kakwa Wildland Park, and about half of Willmore Wilderness Park. It is adjacent to Jasper National Park. The sub-region is 1,321,590 hectares (13,216 km^2) – roughly 2% of Alberta – and is almost entirely within the provincial Green Area, which is comprised of public lands managed for timber production, coal development, petroleum and natural gas development, traditional land uses, watershed conservation, fish and wildlife resources, recreational pursuits, and a myriad of other uses.

The sub-region contains natural resources including timber, petroleum and natural gas, coal, metallic and industrial minerals, sand and gravel, and rangelands that support grazing. The sub-region has industrial developments, including one forest management agreement area (69% of the sub-region), petroleum and natural gas sub-surface agreements (58% of the sub-region), metallic and industrial minerals (19% of the sub-region), coal agreements (13% of the sub-region), and grazing dispositions (1.6% of the sub-region). There are 67 registered fur management areas across the sub-region.

Nearly half of the sub-region is composed of rolling hills and plateaus with deciduous and mixed wood forests (e.g., Foothills Natural Region). Over a third of the sub-region is covered by mountains, upper foothills, and glacial valleys (e.g., Rocky Mountain Natural Region). The Boreal Natural Region covers 15% of the sub-region, characterized by deciduous, mixed wood, and coniferous forests interspersed with extensive wetlands.

The Upper Smoky sub-region is home to the Narraway and Redrock-Prairie Creek woodland caribou populations and ranges. These caribou are categorized as Southern Mountain Woodland Caribou. The abundance and occurrence of woodland caribou along the eastern slopes of Alberta has dramatically declined in recent decades, with only three populations remaining on provincially managed land.

The Upper Smoky sub-region is rich in natural resources, home to diverse species, and provides economic, subsistence, cultural, and recreational values. The sub-region is of cultural and subsistence importance for Indigenous peoples. The natural resources in the area present an opportunity for economic development in the region and beyond while continuing to support social and environmental outcomes – the definition of a working landscape. The implementation of a balanced and thoughtful sub-regional plan will allow the Government of Alberta to deliver on the goal of doubling oil and gas production while also maintaining the working landscape in the region.

First Nations peoples have a long history in the area and have an important connection to the land, which overlaps the geographic area of Treaty 8. Métis peoples also share a deep history with this land. This plan was developed with consideration of Indigenous traditional land uses, values, and perspectives.

A Balanced Approach

Approximately $21.2 billion of Alberta's gross domestic product (GDP) was derived from this sub-region in 2020, which is 6.1% of the province's GDP. This productivity supports jobs in communities inside and outside the sub-region, representing a labour force of approximately 85,000.

Oil and gas production has resulted in just under 4,000 active wells in the sub-region in 2021, accounting for approximately 12.5% of Alberta's total conventional oil and gas production. Alberta also has a goal to double oil and gas production to meet the demands for safe, affordable, reliable energy and North American energy security; increasing energy production in this subregion will be necessary to meet those targets.

The timber industry has long provided significant employment opportunities in the region. In addition, careful and considerate management of timber resources is necessary to address the significant wildfire concerns in some areas in the sub-region.

Amidst economic uncertainty, Alberta must have a stable regulatory system that continues to allow the province to grow its major industries and economy, diversify its trade partnerships in energy and forestry, and ensure energy security and affordability for Albertans and Canadians.

Pursuing a working landscape means considering the economic contributions of these sectors in relation to each other, potential for future economic diversification opportunities, ensuring Indigenous traditional land uses are supported, and enabling subsistence and recreational pursuits. This means managing the pace, scale, and locations of development in a way that addresses future economic opportunities while supporting social and environmental outcomes. It also means working together to remove existing footprint that is no longer economically productive to support other land use values and provide additional space in the future for development opportunities. This plan outlines policy objectives, and management approaches and requirements for land uses to enable responsible development of Alberta's resources for generations to come.

Figure 1 shows the overall policy direction for the sub-region, identifying where higher and lower land use intensities are supported by management approaches in this plan. The "nature-first" zone prioritizes conservation and ecosystem services with opportunities for outdoor recreation. The "slow-go" zone includes two caribou ranges and three other sensitive areas (see Figure 8) in the sub-region and will enable a diversity of land uses with some restrictions. The "go" zone provides for a full range of development opportunities, following existing policy and requirements in the province.

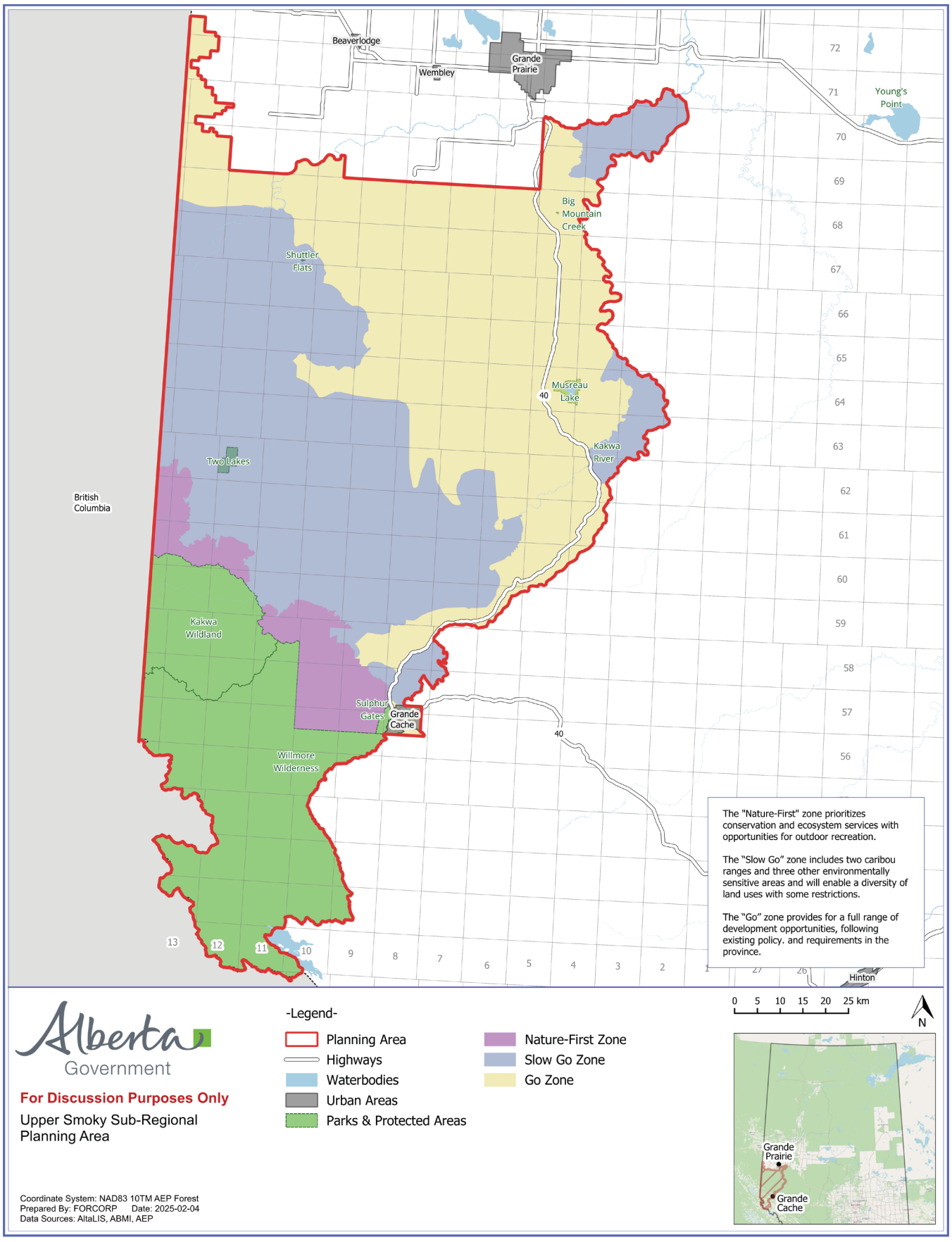
All aspects of the plan will be reviewed every five years, ensuring that it continues to enable development and increased production, while also minimizing environmental impacts and restoring habitat.

Managing Existing Sensitive Areas

Alberta currently has spatially defined policies and regulations to support habitat for fish and wildlife. During the development of this plan, these policies and delineated areas were considered and incorporated into the management approaches to enable resource development while achieving benefits to the environment. Using already developed delineations contributes to effective implementation of a sub-regional plan. Descriptions of sensitive areas can be found in Appendix A.

For the purposes of this sub-regional plan, the term Indigenous means one or both of First Nation or Métis. The Government of Alberta will continue to engage with Indigenous peoples and organizations when government decisions may potentially adversely affect the continued exercise of constitutionally-protected rights.

Figure 1: Upper Smoky Sub-region



Vision

With an abundance of natural resources, the Upper Smoky sub-region allows for a vibrant economy while ensuring that there is an abundance and diversity of wildlife and habitats, where future generations can continue to enjoy traditional land uses, our outdoor heritage and experiences.

Outcomes

This plan is intended to:

Grow economic opportunities and maintain investor certainty
The sub-region is rich in natural resources, which include petroleum and natural gas, timber, coal, minerals, rangelands, and surface materials. The development of these resources has provided economic opportunities for local communities and is an important part of the provincial economy. Maintaining a working landscape and building on Alberta's existing regulatory regime provides clarity and certainty to operators and will attract new capital investment while also supporting social and environmental outcomes.

Manage anthropogenic footprint
Managing footprint can support a range of ecosystems goods and services important to all Albertans, including clean drinking water; flood and drought mitigation; and cultural, subsistence and recreational opportunities like hiking, trapping, fishing, and hunting. The Upper Smoky sub-region is a diverse landscape containing an assortment of plants, fungi, invertebrates, fish, amphibians, reptiles, birds, and mammals. Because of the potential impacts on biodiversity from wildfire, careful management of the timber resources will be necessary to limit those impacts.

Manage caribou habitat
Land use activities will be managed to advance Alberta's economic interests and achieve its objectives, while considering caribou habitat. Habitat protection will only help address part of the caribou population concerns – other mechanisms, such as predators and population support, also have a significant impact on caribou herd viability. Beyond this plan, Alberta continues to advance other strategies and partnerships to manage populations of caribou, predators and other species that interact with caribou including predator control programs and a variety of research and monitoring initiatives.

Support traditional land uses
Indigenous peoples have deep connections to the lands in the Upper Smoky sub-region, which can be understood through stories told, whether of learning to trap with a grandfather, traditional trails weaving across the land, or gathering foods and medicines to support community members. They believe landscape intactness and biodiversity are integral to supporting these relationships and for the transfer of culture and knowledge to future generations.

Attract sustainable recreational pursuits
Many Albertans have connections to this landscape, its fish and wildlife, and other natural values contained in the sub-region. Recreational pursuits support individual and community wellbeing and strengthen connections to the land. The Upper Smoky's natural and scenic values have the potential to be a world-class destination for outdoor adventure while also supporting rural areas to build healthy communities with diverse opportunities.

Policy Objectives

Overview

The following is an overview of the policy objectives within the Upper Smoky plan. These objectives align with the plan sections and provide the overarching direction for that section. Further details about the specific goals in each plan can be found in that section.

1. Support access to and use of the land and resources by Indigenous peoples to **practice traditional land use and pass Indigenous knowledge** among generations.
2. Establish a coordinated approach to road development through an **access management** plan that supports resource development, supports removal of economically unproductive footprint, and minimizes impacts on natural values.
3. Support goals for **well-based energy and minerals** development and provide certainty for petroleum and natural gas development and emerging well-based resources (brine-hosted metallic and industrial minerals, geothermal, carbon capture utilization and storage technology) while managing footprint.
4. Reduce the width and associated impacts of **linear features** across the landscape.
5. Support **forestry management** goals including wildfire mitigation and provide certainty for forest harvesting while considering other landscape values.
6. Focus and enhance the management of **recreation and tourism** to provide quality and sustainable outdoor recreation and tourism experiences.
7. Modernize and provide clear policy direction for **coal development** areas in the sub-region.
8. Provide direction for sustainable development of **rock-hosted metallic and industrial minerals**.
9. Extract **surface materials** in a manner that reduces overall footprint.
10. Support the stewardship of rangeland ecosystems and protect environmentally sensitive areas through **responsible grazing**.
11. Support sustainable **peat development** opportunities.
12. Through **restoration** of economically unproductive footprint, support long-term ecological processes in the sub-region.
13. Designate **conservation areas** in areas that provide opportunities to support conservation of sensitive species, traditional land use, and outdoor recreation and tourism.
14. Treat **legacy seismic lines** to remove economically unproductive footprint from the landscape, promote habitat intactness, and support future economic opportunity.
15. Establish an **implementation committee** to incorporate local and other perspectives during the implementation of this plan.
16. **Monitor** individual and cumulative effects and adapt management in response to species and landscape indicators.
17. Ensure regular **plan review** and adjust management approaches as needed to reflect social, economic and environmental circumstances.

1. Indigenous Knowledge and Traditional Land Uses

Support the ability of Indigenous peoples to access and use the land and resources.

Healthy ecosystems, and the ability to access land and food sources, are integral to support Indigenous ways of life, including food security, culture, spirituality, and the continued practice of traditional land uses.

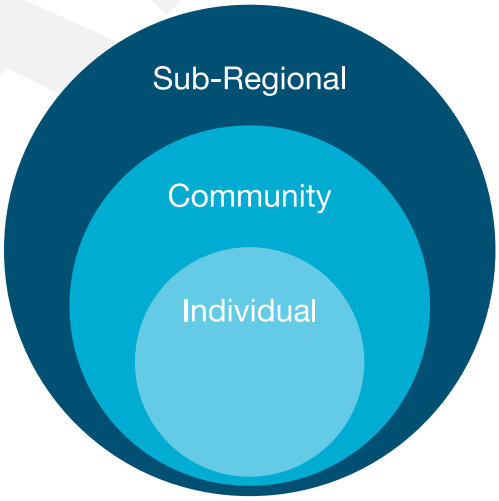
Outcomes

- Manage footprint in environmentally sensitive areas while allowing for exploration of resources
- Provide an integrated and effective road network
- Support investor certainty and maintain economic opportunities
- Support traditional land uses
- Conserve multi-species

Recognizing Multiple Perspectives

In the development of this plan, the Government of Alberta worked with local First Nations and Métis communities and organizations to gather and refine ideas for managing the landscape to support Indigenous ways of life and opportunities to pursue Indigenous economic prosperity.

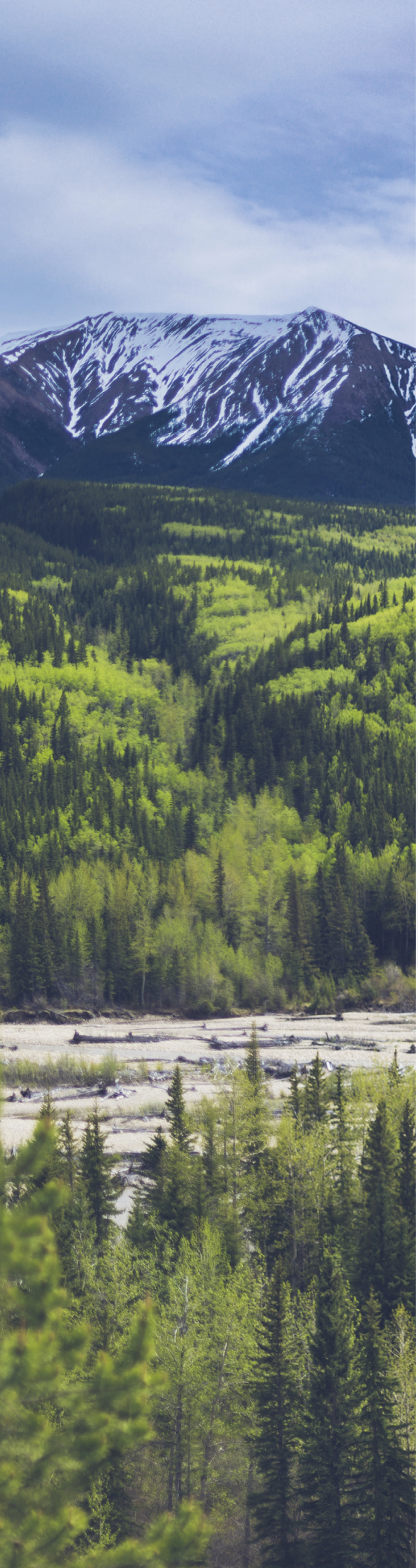
Indigenous peoples and organizations told the Government of Alberta that they experience impacts to the continued practice of their traditional land uses at multiple geographic scales–sub-regional, community, and individual, as shown on the right. This plan can facilitate Indigenous traditional land uses through restoration of human caused footprints across the sub-region.



Indigenous peoples also experience the land at the community and individual scales. Different Indigenous organizations use different and sometimes overlapping areas for traditional land uses. Some may not prefer to hunt, or may not have traditionally hunted, across the entire sub-region. Even within one Indigenous community, experiences are unique and individuals have their own relationships with the land. One person may have responsibilities for gathering medicines and another may be a trapline holder.

The strategies and approaches throughout this plan work together to manage different activities and their associated footprint on the landscape. This section of the plan also describes pathways to greater Indigenous inclusion through plan implementation.

Some management approaches across the sub-region benefit wildlife populations, supporting healthy populations of these species in preferred hunting and trapping areas. More local approaches may support peaceful enjoyment of gathering areas and ensure that medicinal and berry plants are free from road dust. Managing the land, considering these different scales, can support Indigenous communities in practicing traditional land uses.



Preserving Indigenous Ways of Life and Supporting Traditional Land Uses

This plan has been developed to describe how the Government of Alberta will manage the landscape, including the cumulative effects of development. Throughout this plan, there are policy objectives, management approaches, and associated requirements. These work together to manage the pace, scale, and location of development. This plan is also intended to support people in their uses of the landscape, including traditional land uses, recreation, and industrial activity.

Opportunities to Pursue Indigenous Economic Prosperity

The policy objectives and requirements throughout the plan work together to result in a landscape that supports biodiversity, habitat, and traditional land uses while still supporting opportunities for local jobs and strong communities. Indigenous communities have an interest in economic development and growth, and this plan will ensure that these communities have equal opportunity to access economic development. Recognition of the importance that these industries have on local Indigenous communities – and the infrastructure, jobs, and training that accompanies them – is important to the success of the plan.

Indigenous Inclusion in Implementing this Plan

Working with Indigenous knowledge-holders and wisdom-keepers is an important part of implementing this plan. By including Indigenous participation in plan implementation, the Government of Alberta can better understand what is needed for the practicing of traditional land uses, including the meaningful exercise of Treaty rights. A sub-region that supports Indigenous peoples includes well-functioning ecological processes, opportunities to pursue Indigenous economic prosperity, and places to pass Indigenous knowledge to future generations. While managing human footprint well is important for supporting traditional land uses, Indigenous peoples and organizations have also highlighted the importance of ongoing Indigenous participation in land-use planning and implementation – such participation may advance reconciliation, including economic reconciliation, and support better planning and decision-making.

Policy Objectives

The following policy statements provide guiding direction for Alberta in its relationship with Indigenous peoples and organizations in the implementation of this plan.

1.1 Build capacity to enable Indigenous participation in the implementation of this plan.

1.2 Enhance habitat restoration to include Indigenous peoples, values and perspectives.

1.3 Support Indigenous peoples to practice traditional land uses on Crown land, including in Provincial Parks, Wildland Provincial Parks, and Provincial Recreation Areas.

1.4 Enhance public awareness of Indigenous values.

1.5 Include Indigenous values and perspectives into monitoring and evaluating plan implementation, including wildlife and habitat monitoring.

1.6 Explore and pursue opportunities for inclusion of Indigenous peoples and values in plan implementation and future land-use planning, including economic development opportunities.

2. Access Management

A coordinated approach to road development that supports resource development, supports removal of economically unproductive footprint and reduces impacts on natural values.

Outcomes

- Manage footprint in environmentally sensitive areas while allowing for exploration of resources
- Provide an integrated and effective road network
- Support investor certainty and maintain economic opportunities
- Support traditional land uses
- Conserve multi-species

This section of the plan applies to the “slow go” zone of the sub-region, and to roads approved as formal dispositions under the *Public Lands Act* for all sectors (with exceptions as noted).

Roads play an important role enabling natural resource development. Additional roads are needed for exploration and supporting increased production, and the guidelines have been designed to provide the necessary flexibility. Roads are primarily constructed in relation to the needs of individual operators. Over time, the density of the road network in the sub-region has increased, impacting wildlife populations and habitats, and traditional land uses.

There are three kinds of roads (primary, intermediate and transitional) available to operators. There is flexibility to add new roads as long as the total amount of primary roads does not exceed the total amount established and published by government for areas within the “slow-go” zone. In the case where there is not sufficient space in the amount of road for the area, restoration (including restoration of existing primary roads) can be used to make room. Requirements related to restoration activities including timelines will be established and published by government. More information can be found in Table 1.

Table 1: Descriptions of Primary, Intermediate and Transitional Roads in "slow-go" zone

Primary Roads	Roads that have the potential to remain in use or be constructed for the purposes of new activities.
Intermediate Roads	Roads that have been identified as potential access for the development of existing Crown mineral agreements. This provides for roads that might be needed for proposed developments that have not been constructed yet. This provides exploration of resources and for decisions to be made on the viability of the resource. • New Intermediate roads are not permitted. • Changes in the location or size of Intermediate roads are not permitted. • Ten years after the plan is approved by Cabinet, the road or portions of the road that are no longer required to access development infrastructure must be restored at the same time as the associated infrastructure.
Transitional Roads	Existing formal disposition roads that can be retained to accommodate existing resource development infrastructure, until that infrastructure is no longer required, subject to the provisions. This supports existing dispositions and facilities but ensures the road is reclaimed along with facilities when they are no longer required. • The road or portions of the road that are no longer required to access development infrastructure must be restored at the same time as the associated infrastructure. • New transitional roads are not permitted. • Expansion of existing well pad dispositions is permitted for the purpose of accessing mineral lease agreements. This is to accommodate mineral lease agreement holders that acquired multiple horizons and can use their existing well pad dispositions.

Access management is one of the approaches under integrated land management, and operators are familiar with joint road development and use. Separate industrial and commercial operators such as forestry and energy can work together on road construction, use and maintenance. A coordinated approach to road development that results in a well-considered network of roads will allow for access to resources in sensitive areas. This approach will provide flexibility over time, set out requirements for roads within the network, and encourage restoration of economically unproductive roads. Together the requirements for new roads and restoration of roads is important for mitigating negative impacts to natural and cultural values and ensuring there is space on the landscape for new economic opportunities over time.

The ultimate outcome is to ensure that there is the ability to explore and access resources while continuing to improve the overall landscape through restoration activities that are focused on the "slow-go" zone.

Management of impacts to riparian areas is important for achieving the sub-regional plan outcomes within caribou ranges and other specific sensitive areas. Watercourse management areas in the "slow-go" zone will be identified based on existing government policy direction, the nature of the watercourse valleys in the area and existing road infrastructure in order to ensure access to resources is available while managing the riparian areas. The watercourse management areas will be delineated, established and published by government. These guidelines will be updated as necessary to adapt to changing circumstances in the region. Unless otherwise noted, existing rules with respect to roads apply in the area.

Policy Objectives and Requirements

2.1 Identify a road network in the "slow-go" zone of the sub-region (Figure 2) that will provide access to resources while reducing the footprint required over time.

2.1.1 A road network is established in accordance with Figure 2, and identifies roads as Primary Intermediate, or Transitional. (Table 1)

2.1.2 A road network applies to roads approved as formal dispositions under the *Public Lands Act*.

2.2 Primary roads in the "slow-go" zone of the sub-region

2.2.1 A proposed road must not result in the primary road network exceeding the maximum amount of primary roads established and published by the Government of Alberta for each area of the "slow-go" zone.

2.2.2 A proposed road must start from a primary road.

2.2.3 A proposed road may be an existing transitional road.

2.2.4 A proposed road must not be located within the watercourse management areas as delineated and published by the Government of Alberta unless the proposed road is to access a water outfall structure, a water intake structure or a sand and gravel operation along the Wapiti River or Smoky River. These requirements can be waived if adequate justification is provided that the stringency strands resources and environmental impact can be minimized.

2.3 Providing for restoration of existing primary roads to allow for increase in new roads in the "slow-go" zone of the sub-region.

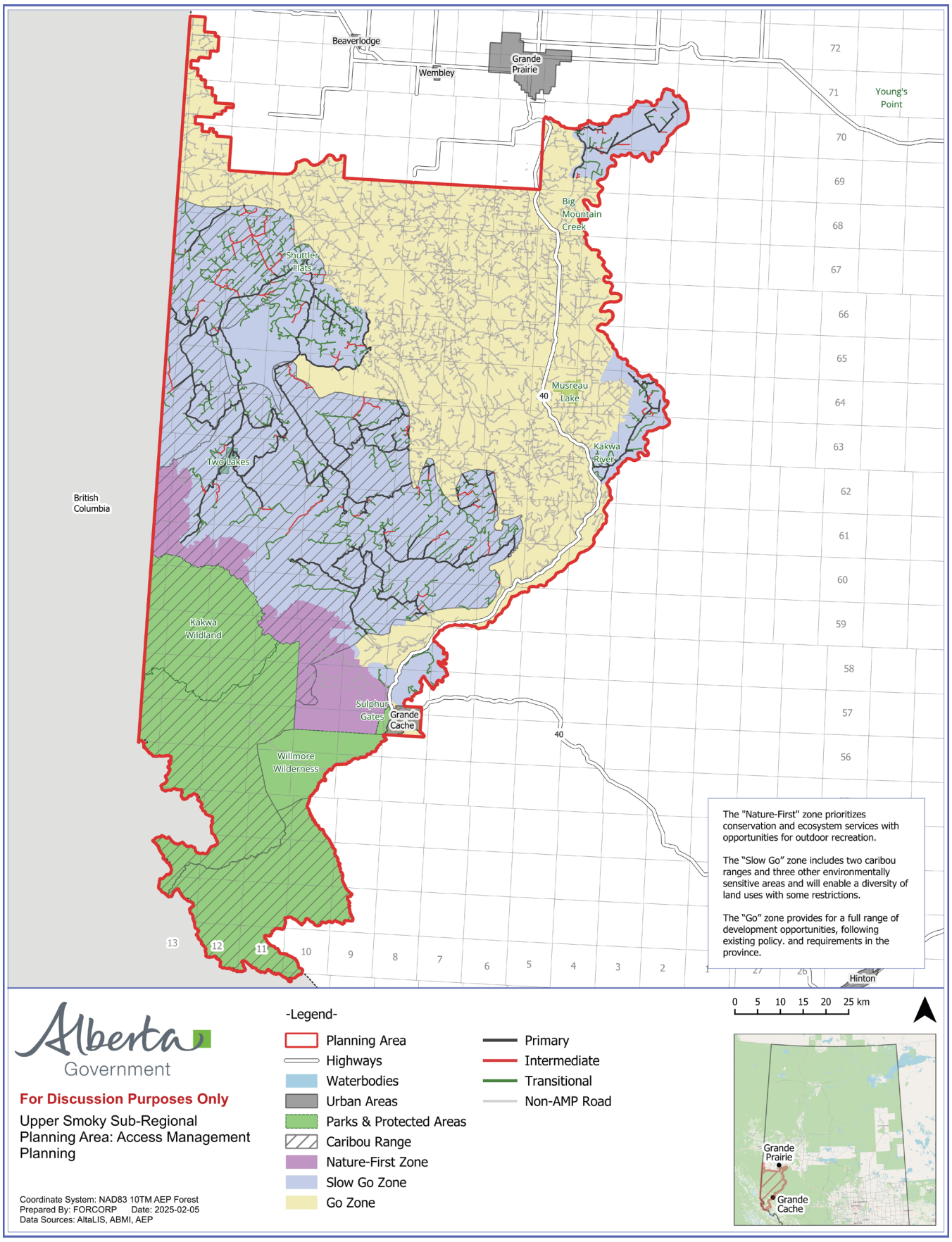
2.3.1 In the case of a future primary road being proposed, and sufficient space in the maximum amount of roads is not available, then restoration can be made to make room for new development opportunities. This restoration can include unused roads, well pads, or other landscape disturbances (i.e. legacy seismic lines). Requirements related to restoration activities including timelines will be established and published by the Government of Alberta.

2.4 Focus new development around primary and intermediate roads (Appended Development) in the "slow-go" zone of the sub-region.

2.4.1 New developments approved through formal dispositions must be placed within approximately 100 metres of a primary road and the access road must not be longer than 200m.

2.4.2 Dispositions for transmission lines, pipelines or future primary roads are exempt from this section.

Figure 2: Road Network



3. Well-Based Energy and Minerals

Provide certainty for petroleum and natural gas development and emerging well-based resources (brine-hosted metallic and industrial minerals, geothermal, carbon capture utilization and storage technology) while minimizing footprint and landscape fragmentation.

Outcomes

- Increase economic opportunities and investor certainty
- Manage footprint and conserve multi-species
- Support traditional land uses

The sub-region encompasses the Montney and Duvernay shale formations, which have become a sought-after geological formation for petroleum and natural gas development. It is anticipated the sub-region will continue to be a key contributor to the province's goal to double oil production in Alberta. Technological advancements enable individual wells to horizontally position bottom holes further away from well pads. In addition, well pads have become more complex, potentially housing dozens of wells over time. The infrastructure and investment needed to support these pads is significant.

There has been limited exploration in the sub-region for emerging well-based resources, including brine-hosted lithium, geothermal and pore space for use for carbon capture utilization and storage (CCUS). Brine-hosted metallic and industrial minerals are typically found in underground saltwater and are extracted through well infrastructure. Geothermal resources may be close to the surface for heating and cooling spaces or found deep in rock formations and fluids. Well infrastructure is also used to inject carbon dioxide subsurface for permanent storage.

Policy Objectives and Requirements

3.1 Reduce cumulative effects by reducing footprint that is inactive and economically unproductive, creating space and providing opportunities for new developments over time.

As part of the energy industry's ongoing environmentally responsible development approach, companies have made commitments to reduce the amount of land associated with suspended and abandoned wells in the subregion. The Alberta Energy Regulator and the Government of Alberta will continue to work with the industry to develop and support programs that support these commitments, and timely closure and restoration.

In order to support achievement of the plan outcomes targets for restoration and reporting on progress towards restoration targets will be established.

3.1.1 Surface disturbances will be allowed in the "go zone and slow go" zones, to access Crown mineral agreements, allowing proponents the necessary access underground resources throughout the region.

3.1.2 Disposition holders will report the steps in progression completed on inactive well sites to achieve Restoration Level 2 in the previous calendar year, no later than March 31, to the regulator.

3.1.3 The regulator shall publish data by June 30th of each year for each planning unit. This data will include information on all formal dispositions that contain an inactive well site, the area of each disposition, and the restoration activities completed in the previous calendar year.

3.1.4 The Government of Alberta will establish and publish targets and reporting requirements.

In order to support achievement of the plan outcomes in the both the "slow-go" and "go" zones, restoration targets will be established to support timely progress towards removal of footprint that is inactive and economically unproductive. This will be aligned with the government's strategy for reducing inactive and non-productive footprint associated with the oil and gas sector. This currently includes the Liability Management Framework, spend targets for industry, and the Closure Nomination Program. This will contribute to addressing the challenge of having financial resources allocated to restoration of footprint on Crown land. The targets will consider the area occupied by abandoned well sites and by inactive well sites where the wells have been drilled and cased.

3.1.5 The Government of Alberta will establish and publish targets for restoration, assess progress being made towards the restoration targets, and publish information on the progress. This assessment will be used to identify dispositions with inactive well sites for priority restoration.

This approach works with the access management approach to support removal of developments that are no longer required and are economically unproductive. This will maintain space for new oil and gas developments over time.

4. Linear Features

Reduce linear feature width across the landscape.

Linear features such as pipelines, transmission lines, and seismic lines are necessary for deriving value from the province's natural resource endowment as companies seek to understand the subsurface geology, carry out projects and deliver power and products to customers and markets. The challenge is that linear features often remain on the landscape for decades.

There are opportunities to restore vegetation on portions of these linear features, to reduce the extent of clearings, while still maintaining the ability to have safe and effective operations.

Outcomes

- Manage footprint and conserve multi-species
- Support traditional land uses
- Maintain economic opportunities and investor certainty

Geophysical exploration techniques and technology continue to improve and offer an opportunity use existing industry best practices to reduce footprint associated with seismic lines.

Policy Objectives and Requirements

4.1 Maintain safe pipeline operations while restoring vegetation on rights-of-way (see Appendix B for detailed requirements).

4.1.1 Pipeline dispositions and associated temporary disturbances must meet Restoration Level 1 requirements. This includes beginning the work to restore the areas necessary to construct the pipeline to pre-disturbance standards. (See the Restoration section for further details.)

4.1.2 New pipeline dispositions must complete restoration within 5 years of completing construction.

4.1.3 Existing pipeline dispositions must submit a restoration program plan within 5 years of the coming into force of the plan and complete restoration no later than 15 years from the coming into force of the sub-regional plan.

4.1.4 Notwithstanding requirement 4.1.1, a vegetation control corridor not exceeding four metres in width may occur as part of the disposition where there is an active pipeline.

4.1.5 Human access must be effectively limited on vegetation control corridors intersecting primary or intermediate roads using strategies as determined by the Government of Alberta and the proponent.

4.2 Restore portions of the dispositions of electricity transmission lines.

4.2.1 New transmission line dispositions must be restored to a Restoration Level 1 within five years of the date the energization certificate is issued.

4.2.2. Vegetation cover is required to be a minimum of two metres high across the right-of-way within forest ecosites. Management of vegetation growth above two metres in height is permitted.

4.2.3 Vegetation cover lower than two metres is permitted within a four-metre linear corridor centered on the transmission line.

4.2.4 Human access must be effectively limited on transmission line corridors intersecting primary or intermediate roads using strategies as determined by the Government of Alberta and the proponent.

4.3 Transition to low-impact seismic exploration techniques.

4.3.1 Source, receiver, and seismic access line will apply low-impact seismic exploration techniques.

Underground pipelines are buried in linear rights of way (RoW) reaching up to 20 metres wide or more. This plan will require revegetation of the RoWs so they are no more than 4 metres wide, which enables continued access for maintenance and emergency situations.

5. Forestry

Provide certainty for forest harvesting while considering other landscape values.

Alberta's forests and the forestry sector contribute to economic prosperity and provide benefits to Albertans – locally, regionally, and provincially.

Forest management planning is guided by policy processes and regulatory requirements which are essential to sustainable forest management in Alberta. Forest harvesting must follow forest management plans, forestry policy directives and standard operating procedures. This sub-regional plan provides further guidance and direction for forest management planning and harvest operations. Strategic land-use plans are required to ensure the standards and objectives of Sustainable Forest Management are achieved (CAN/CSA-Z809-2002, CSA 4.0; Alberta Planning Standard V 4.1).

Currently approved forestry practices create dispersed harvesting areas, which increases landscape fragmentation. To enable forest harvesting, this sub-regional plan provides guidance on the extent, rate and geographic location of harvesting. The plan outlines an approach to consolidating harvest areas (aggregated harvesting approach).

Aggregating harvest areas is an approach that has the potential to:

- Reduce the amount of temporary roads required, which will reduce habitat disturbance and fragmentation created by forest harvesting activities.
- Reduce construction and maintenance costs for the forest sector because fewer roads are needed to access harvesting areas.
- Provide certainty for operators in caribou range.

The effectiveness of this approach is dependent upon the timing and location of the aggregated harvest pattern. It will be important to monitor, and adjust as needed, the details of the forest harvesting approach to manage footprint and conserve multi-species.

Alberta remains committed to improving understanding of wildfire, risk mitigation and management responses. This plan reflects that commitment and seeks to support the mitigation of wildfire risk.

Outcomes

- Maintain economic opportunities and investor certainty
- Support sustainable forest management and management of wildfire risk
- Manage footprint and conserve multi-species
- Support traditional land uses

Policy Objectives and Requirements

5.1 Provide certainty for forest operators harvesting within caribou range.

5.1.1 Forest harvesting in caribou ranges must follow the Harvest Timing Sequence (HTS), which sets out the timelines for harvesting, as shown in Figure 3.

5.1.2 The HTS available for harvesting will become available for harvest during the predetermined period.

5.1.3 There will be no further harvesting in the completed HTS until the following HTS rotation.

5.1.4 Salvage harvesting in caribou range is permitted in the following scenarios:

5.1.4.1 Within the open and the next open HTS.

5.1.4.2 In any other HTS where:

5.1.4.2.1 There is no caribou occupancy, and

5.1.4.2.2 Where the area proposed to be harvested does not reduce the area of undisturbed caribou habitat.

5.1.4.3 A cumulative annual maximum of 680 hectares in Narraway caribou range and 1900 hectares in Redrock-Prairie Creek caribou range.

5.1.4.4 Salvage harvesting plan submissions in response to wildfires must include burn severity and percent mortality assessment maps of all burned stands planned for harvest.

5.1.4.5 Notwithstanding requirement 5.1.4.3, additional salvage harvesting may occur following the assessment triggered in section 18.

5.1.4.5.1 Department may approve up to 1400 hectares of timber in Narraway range and 4000 hectares of timber in Redrock-Prairie Creek Range for the purpose of timber salvage.

5.1.5 Salvage harvesting in caribou range will be prioritized using the following criteria:

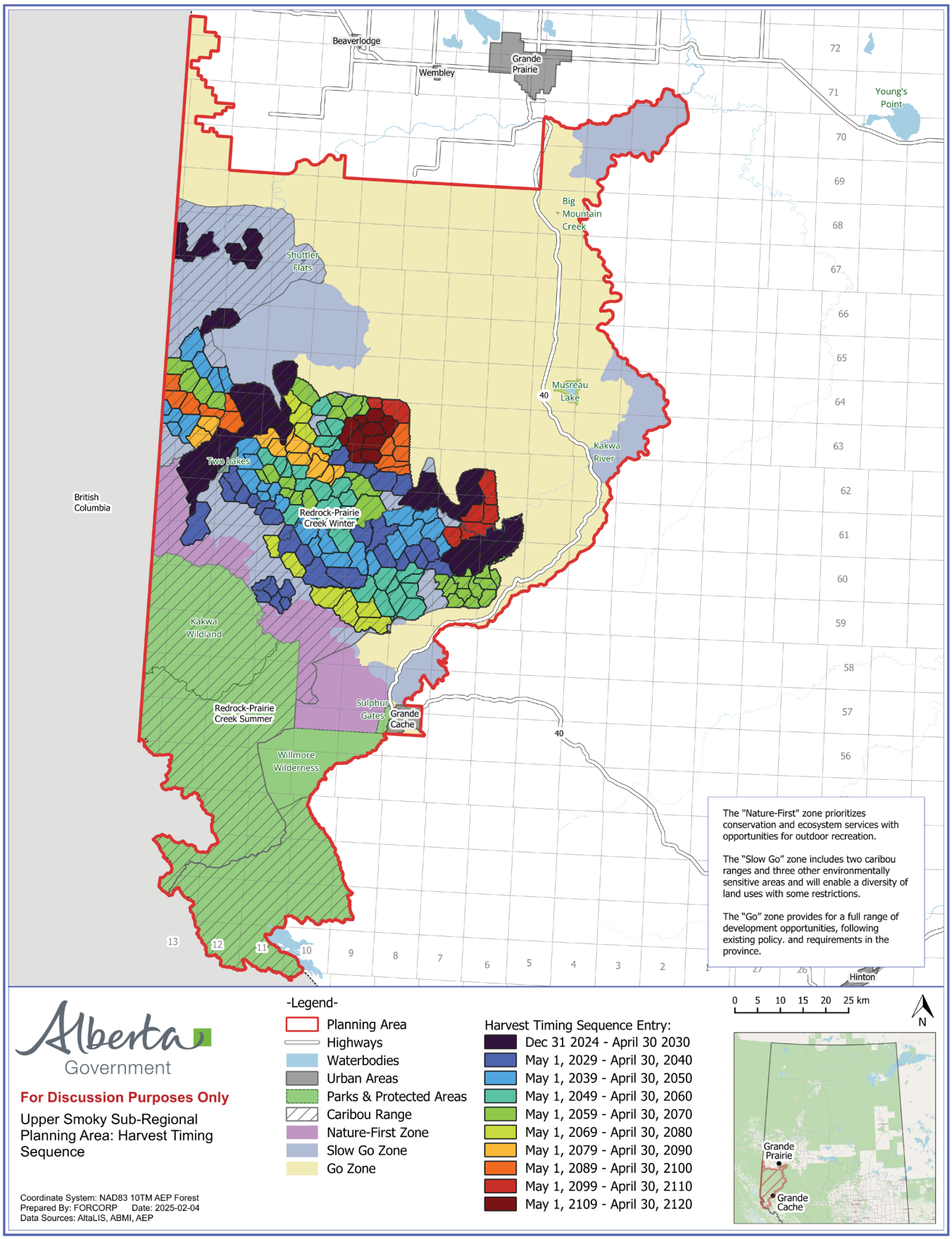
5.1.5.1 Salvage harvesting will not reduce the area of undisturbed caribou habitat.

5.1.5.2 Severely damaged area will be prioritized over less severely damaged areas.

5.1.5.3 Lightly damaged (low severity) areas with less than 25% of the trees killed should be avoided.

Cumulative annual maximum for wildfire salvage is set below 1% of the contributing land base for each caribou winter range. This is because when the annual total natural disturbance within a caribou winter range exceeds 1%, a plan assessment is triggered.

Figure 3: Harvest Timing Sequence



5.2 Support sustainable forest harvesting across the landscape.

5.2.1 Annual operating plans will not be approved unless:

5.2.1.1 The Equivalent Clearcut Area (ECA) for the watershed(s) in which the harvesting is authorized to take place will not be greater than 50%.

5.2.1.2 Where the harvesting of timber is for the purpose of timber salvage, the ECA will not increase as a result of harvesting.

5.2.2 Lands within mountain goat and sheep ranges will not be made available for forest harvesting until populations are stable for a period of at least 5 consecutive years.

5.2.2.1 The status of goat and sheep populations are provided in the Status of Mountain Goat and Bighorn Sheep in the Upper Smoky Region and this assessment will be updated as a component of the scheduled plan review.

5.2.3 Domestic ungulate grazing as a reforestation treatment is not permitted within the mountain goat and sheep areas disease separation zone.

5.3 Restoration of temporary footprint.

5.3.1 Formal disposition roads associated with forestry activities must align with the Access Management requirements outlined in this plan.

5.3.2 Temporary footprint outside of a harvest area, authorized by an annual operating plan approval, shall be restored to Restoration Level 1. This includes roads that follow pre-existing disturbance not currently under disposition.

5.3.3 Inside caribou range, all activities to achieve Restoration Level 1 must be complete within three years from the closure date of an HTS.

5.3.4 In addition to existing annual reforestation reporting requirements under the Timber Management Regulation, the following reporting on restoration of temporary footprint within caribou range is required:

5.3.4.1 A report summarizing all restoration activities conducted in the HTS no later than June 1 of the timber year following the closure of an HTS.

5.3.4.2 A report demonstrating Restoration Level 1 no earlier than five years and no later than eight years from closure of an HTS.

5.3.5 In addition to existing annual reforestation reporting requirements under the Timber Management Regulation, the following reporting on restoration of temporary footprint outside of caribou range is required:

5.3.5.1 A report summarizing all restoration activities no later than June 1 of the timber year following the completion of restoration activities.

5.3.5.2 A report demonstrating Level 1 restoration no earlier than five years and no later than eight years from the expiration date of the authorization for the temporary footprint.

Fire plays a crucial role in the dynamics of fire-dependent ecosystems. It is important to consider the integration of fire and forest management. Integration of fire and sustainable forest management plays an essential role in the design of FireSmart landscapes. Strategic landscape level disturbances provide numerous ecological and wildfire management objectives.

In Alberta over 65% of all wildfire starts are human caused. The Government of Alberta, forest companies, industrial operators and other stakeholders all play a vital role at this scale, in collaboration with community and residents.

The Government of Alberta will continue to develop and adjust fire management approaches using the best available information.

5.3.6 Seismic footprint in active and new harvest blocks will be reforested to the same standard as the surrounding harvest block.

5.3.6.1 Ongoing access along specified legacy seismic lines following reforestation (chosen for Indigenous traditional land use, trapper access, designated trail, or other purposes) shall not exceed two metres in width and will require approval as part of the annual operating plan.

5.3.6.2 Exemptions may be provided for seismic lines that are part of the provincial recreation trail plan.

5.4 Mitigate wildfire risk.

5.4.1 The department responsible for wildfire management will assess the wildfire risk and develop a comprehensive wildfire management plan containing at minimum:

5.4.1.1 Wildfire detection methods and applicable locations of towers and/or equipment.

5.4.1.2 Wildfire response infrastructure such as firebases, aircraft landing locations, staging areas etc.

5.4.1.3 Response plans for communities, recreation areas, and major industry developments.

5.4.1.4 Fuel breaks within caribou range will:

5.4.1.4.1 Be permitted in areas outside of caribou occupancy.

5.4.1.4.2 Initial work will be limited to one fuel break with a maximum treatment area of 320 hectares, with a maximum treatment width of 500 metres including any associated dispositions that are intersecting the fuel break.

5.4.1.4.3 Retain 75% of tree basal area evenly distributed across the fire break with a focus on retaining larger trees to reduce ladder fuels.

5.4.1.4.4 Skid or forwarder trails will be used to transport wood from the fire break to an existing formal disposition road.

5.4.1.5 After development of a first fire break within caribou range, impacts to caribou will be evaluated over a minimum 5-year period.

- If there are no additional impacts to caribou identified, fire breaks may be expanded to 500 hectares ha with a maximum width of 500 metres.
- No new fire breaks will be developed if one or more fire break results in impacts to caribou movement or use.
- Timber harvested to mitigate wildfire risk will count towards annual allowable cut approved in the Forest Management Plan.

6. Recreation and Tourism

Focus and enhance the management of visitor use to provide quality and sustainable outdoor recreation and tourism experiences.

People from the local area and visitors participate in a variety of outdoor recreation activities throughout Upper Smoky's diverse landscapes. These areas often have high scenic value and are associated with rivers or lakes and their surrounding riparian areas.

Recreation and tourism opportunities range from self-guided pursuits such as hunting, fishing, hiking, equestrian, camping and off-highway vehicle (OHV) use to commercially enabled activities such as guided/ outfitting tours and overnight experiences.

Over the past few decades, preferences for outdoor recreation activities and nature-based tourism experiences have changed. The natural and cultural values of the sub-region present an opportunity to enable high quality experiences through focused planning, investments, and management.

Outcomes

- Manage footprint and conserve multi-species
- Support traditional land uses
- Support sustainable outdoor recreational activities and tourism developments

These focus areas do not preclude recreation and tourism from occurring in the broader sub-region, in alignment with the other strategies in the plan.

Policy Objectives and Requirements

6.1 Focus and enhance the management of recreation and tourism opportunities within four key areas in the sub-region.

More information on strategies for the four key areas is provided in Appendix C.

The following strategies are applicable in areas across the sub-region.

6.1.1 Under the *Trails Act*, develop trail management plans where applicable, including detailed assessments, to designate or restore trails, protect trail infrastructure, enable trail connectivity, in alignment with traditional land use, historical, cultural, wildlife and conservation values, in a multiple use landscape.

6.1.2 Work with Indigenous peoples and organizations to understand impacts of recreation or tourism on traditional land use and values and collaborate to identify opportunities for Indigenous-led tourism.

6.1.3 Advance education and outreach to enhance environmental and regulatory literacy and shared stewardship.

6.1.4 Where possible, align trail management planning and the restoration of industrial sites with considerations for future recreation and tourism uses.

6.1.5 Use area-based tools to manage recreation activities on sensitive lands and riparian areas.

6.1.6 Develop and apply rules for trail use, potentially including trail timing restrictions to support conservation and management of wildlife and environmental values, particularly in relation to populations and habitats of native trout, caribou, grizzly bear, mountain goat and sheep.

6.1.6.1 In mountain goat and sheep ranges, mountain goat and sheep areas, special access zones, key wildlife and biodiversity zones, new conservation areas, and in caribou ranges, consider tools to manage motorized use, such as specific trail and trail area designations, seasonal restrictions, or staying on-trail.

6.1.7 Develop and apply rules for trail use, potentially including trail timing restrictions to support wildfire risk mitigation.

6.2 Minimize impacts from recreation activities.

6.2.1 All designated trails within caribou range will be limited to a clearing width no greater than 4.0 meters.

6.2.2 Recreational use of ungulates other than horses on lands within the mountain goat and sheep disease separation zone is not permitted.

There is opportunity to develop a broader understanding of the history of these lands and share those experiences through the eyes of modern-day adventurers.

Recreation and tourism activities can support individual and community wellbeing, attract users to an area to live, work and play, and contribute to local, regional, and provincial economies.

Both the municipal districts of Grande Prairie and Greenview market tourism attractions within the sub-region including: Kakwa River, Big Mountain, Shuttler Flats, and Sulphur Gates Provincial Recreation Areas; Two Lakes Provincial Park; Willmore Wilderness Park; waterfall hikes; hiking; horseback riding; OHV and snowmobile use; hunting; and angling.

Desirable recreation and tourism rely on having a healthy environment and in turn more deliberate planning and management of recreation and tourism is needed to ensure sustainability.

Due to the Upper Smoky's natural and scenic values, it has potential to be a destination for adventure in western Alberta while supporting rural areas in building healthy communities with diverse opportunities.

7. Coal

Modernize Alberta's designation of coal development areas.

In the Upper Smoky, coal interests have historically overlapped areas important for Indigenous traditional land uses, recreation pursuits, and sensitive species at risk, fisheries, and wildlife habitats. Both coal exploration programs and mining activities can have large landscape footprints. Mining operations result in permanent landscape alterations and associated implications for adjacent natural resources. At the time of publishing this plan, active coal production was occurring only at the Grande Cache coal mine along the Smoky River within this sub-region.

Outcomes

- Maintain economic opportunities and investor certainty
- Manage footprint and conserve multi-species
- Support traditional land uses

Policy Objective

7.1 Maintain water quality across the sub-region.

7.1.1 The development of a Surface Water Quality Management Framework for the Peace Region will be advanced to contribute to surface water quality management in the Upper Smoky sub-region. The framework will complement existing environmental processes and standards.

Policy Requirements

7.2 Manage coal footprint within designated areas.

7.2.1 Coal exploration and development is directed to existing active and inactive mine permit areas in Zone 1 and Zone 2, identified in Figure 4.

7.2.2 Coal mine development in Zone 2, including the portion extending into the Berland sub-region, is limited to underground operations only.

7.3 Restore coal exploration and development footprint to support economic opportunities and environmental values.

7.3.1 Restoration Level 3 is required for the purpose of surface and underground mining for coal, to obtain a reclamation certificate.

7.3.2 Restoration Level 1 is required for coal exploration programs.

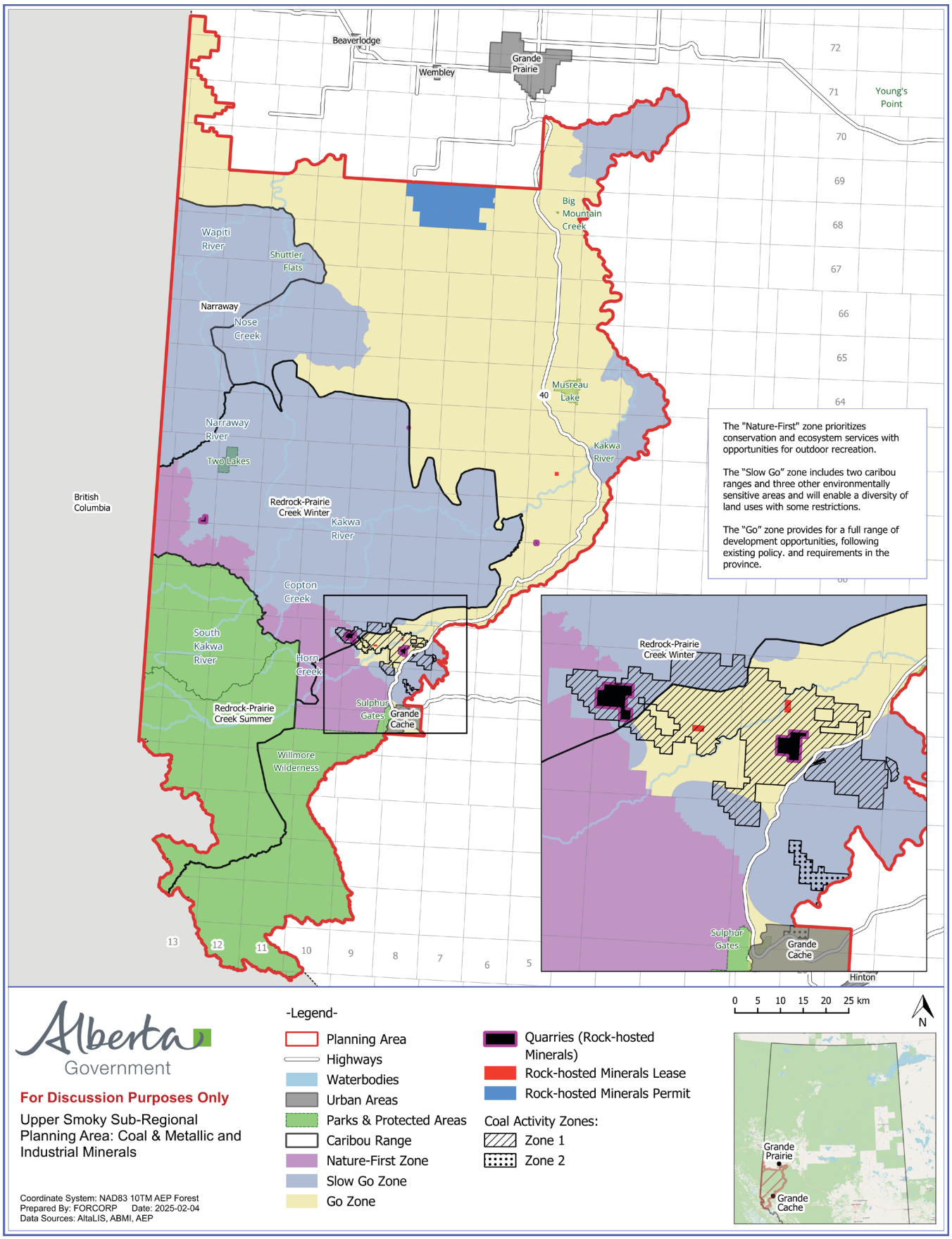
Coal development can impact surface water quality and aquatic organisms. Alberta's objective is to protect, surface water quality as this is an important resource.

The updated coal activity zones provide a modernized approach that considers current and future potential land uses and pressures while recognizing the importance for local jobs and communities.

Applicants wishing to pursue coal activities are subject to a number of requirements under the applicable legislation and associated regulations, including the *Public Lands Act*, *Environmental Protection and Enhancement Act* (EPEA), *Coal Conservation Act*, *Mines and Minerals Act*, *Responsible Energy Development Act* and the *Alberta Land Stewardship Act.*

In alignment with the observations from the Coal Policy Committee (2021), The Government of Alberta continues to work with the Government of Canada to implement the forthcoming Coal Mining Effluent Regulations to align with national water quality limits for effluent released from coal mines. This will reduce the risks to water quality by limiting levels of harmful substances in coal mining effluent.

Figure 4: Coal and Metallic and Industrial Minerals



8. Rock-Hosted Metallic and Industrial Minerals

Provide direction for sustainable development of rock-hosted metallic and industrial minerals.

Rock-hosted metallic and industrial minerals are found in surface or subsurface rock formations. These are largely extracted through traditional surface mining methods (i.e., quarries). In cases where the resource is deeper, sub-surface mining methods are used. Some sand and gravel is washed for placer minerals, such as gold, silver, and platinum, before being used for construction. In the sub-region, industrial minerals (e.g. shale and sandstone) support the development of infrastructure needed to access and develop resources (e.g. roads and well pads).

Outcomes

- Maintain economic opportunities and investor certainty
- Manage footprint and conserve multi-species
- Support traditional land uses

Policy Objectives and Requirements

8.1 Reduce footprint by limiting activities.

8.1.1 New rock-hosted metallic and industrial mineral dispositions for exploration or development may be issued in the “go” zone.

8.1.2 Existing commitments in all of the sub-region will be honoured.

9. Surface Materials

Extract surface materials in a manner that reduces overall footprint.

Surface materials (also known as aggregates) refer to materials such as sand, gravel and clay. In the sub-region, aggregates support the development of infrastructure needed to access and develop resources (e.g. roads and well pads).

Surface material operations typically have relatively small footprints and most are located near rivers or creeks. These areas are important as they also support traditional land uses, habitats and ecological corridors for many fish and wildlife species, aquatic ecosystem stability, and recreational and tourism activities.

This plan provides opportunities for ongoing extraction of surface materials while reducing footprint. Two management approaches are being used. New pits and quarries will be located close to the long-term road network and footprint will be restored in an accelerated and enhanced manner in the ”slow go” zone. The riparian areas of the two major rivers in the sub-region will be managed to minimize impacts to these areas. The delineation of the riparian areas for surface materials will be established and published by the Government of Alberta.

Outcomes

- Maintain economic opportunities and investor certainty.
- Manage footprint and conserve multi-species
- Support traditional land uses

Policy Objectives and Requirements

9.1 Reduce footprint by aggregating activities.

9.1.1 In the “slow go” zone, new surface material dispositions must follow the appended development requirements in the *Access Management* section.

9.2 Manage footprint within the riparian areas along the Smoky and Wapiti Rivers .

9.2.1 New surface material dispositions will be issued if the total area of surface material dispositions within 100 metres from the valley breaks along the Smoky River does not exceed 1.5% of the total area within the valley breaks.

9.2.2 New surface material dispositions will be issued if the total area of surface material dispositions within 100 metres from the valley breaks along the Wapiti River does not exceed 1.5% of the total area within the valley breaks.

10. Grazing

Support the stewardship of rangeland ecosystems and protect environmentally sensitive areas.

Outcomes

- Maintain economic opportunities and investor certainty
- Manage footprint and conserve multi-species
- Support traditional land uses

Policy Objective and Requirements

10.1 Provide for new grazing dispositions.

10.1.1 Grazing dispositions may be issued for areas in the "go" zone, subject to an assessment of livestock grazing suitability and compatibility with other land uses.

10.1.2 Livestock grazing applications must be compatible with the recreation management objectives and outcomes for the areas identified in Figure 8. Recreational Access Regulation still applies.

Peat development opportunities under the existing Peat policy will continue.

11. Peat

Support sustainable peat development opportunities.

Peat consists of partially decomposed plants. Since peat does not fully decompose, peatlands store carbon dioxide. Peatlands store water, making them important for water management and key habitats for a variety of fish and wildlife species. Peat can be burned to produce heat and energy; however, it is primarily exported to enhance soil for horticulture.

The Government of Alberta's directive on the Allocation and Sustainable Management of Peat Resources on Public Land (2016) provides operational and administrative guidance for the management of peat resources on all Crown lands.

Outcomes

- Maintain economic opportunities and investor certainty
- Manage footprint and conserve multi-species
- Support traditional land uses

Policy Objective and Requirements

11.1 Manage peat extraction in accordance with Alberta's Peat Policy.

11.1.1 Peat extraction operations must be located entirely within the peat application areas.

11.1.2 Peat extraction operations must comply with the Allocation and Sustainable Management of Peat Resources on Public Land (2016), as may be updated from time to time.

Operators can continue to apply for peat harvesting dispositions within specific areas identified in Alberta's existing Peat Policy (areas that are not critical for sustaining wildlife, fish, or biodiversity).

This section does not apply where peat disturbance is associated with agricultural operations or where peat is salvaged and conserved to meet conservation and reclamation obligations for other specified land activities that occur within the sub-regional plan.

There is additional policy guidance developed to support new applications for peat extraction on public lands:

- Guide to Surface Material Lease Applications for Peat Operations on Public Lands
- Requirements for Conservation and Reclamation Plans for Peat Operations in Alberta

12. Restoration

Support long-term ecological processes in the sub-region.

The Upper Smoky landscape supports vegetation that is important for Indigenous traditional land uses, economic opportunities such as forest harvesting, and biodiversity. It is important to ensure the areas restored after the disturbance result in a landscape that supports other values. Recovering areas impacted by human use is critical in ensuring land uses and natural values are sustainable over time.

Outcomes

- Manage footprint and conserve multi-species
- Support traditional land uses
- Maintain economic opportunities and investor certainty

Biophysical habitat attributes are the habitat characteristics required by a species to carry out life processes necessary for survival and recovery, including the cover type and seral stage.

An ecosite reflects the climatic, soil and moisture regimes of an area and the associated dominant vegetation types that could occur based on those conditions.

Restoring footprint to its original biophysical habitat and/or ecosite ensures the site is capable of recovering back to its original habitat state to be available for the variety of species that reside there.

Restoration Levels

Restoration Level 1 means:

- within an upland ecosite
  - re-establish a plant community representative of the pre-disturbance ecosite,
  - re-establish trees if trees were on the site pre-disturbance,
  - if the upland ecosite is within a caribou range and if the pre-disturbance ecosite was capable of producing caribou biophysical habitat, that area shall be restored back to an ecosite capable of producing caribou biophysical habitat.
- within a wetland
  - re-establish a plant community representative of the pre-disturbance wetland class,
  - re-establish trees if trees were on the site pre-disturbance, and
  - if the wetland is within a caribou range and if the pre-disturbance wetland was capable of producing caribou biophysical habitat, that area shall be restored back to a wetland class in the natural sub-region capable of producing caribou biophysical habitat.

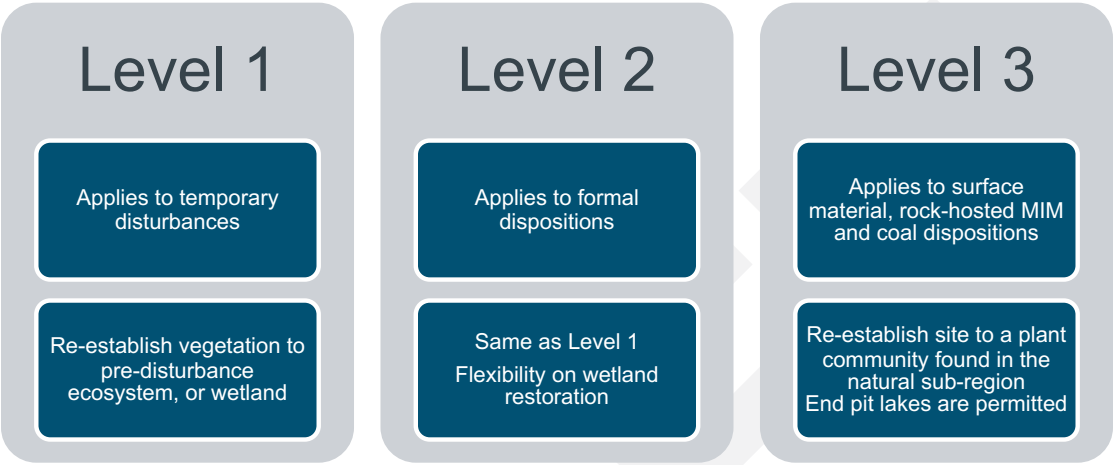
Restoration Level 2 means:

- within an upland ecosite
  - re-establish a plant community representative of the pre-disturbance ecosite,
  - re-establish trees if trees were on the site pre-disturbance, and
  - if the upland ecosite is within a caribou range and if the pre-disturbance ecosite was capable of producing caribou biophysical habitat, that area will be restored back to an ecosite capable of producing caribou biophysical habitat.
- within a wetland
  - re-establish trees if trees were on the site pre-disturbance, and
  - if the wetland is within a caribou range and if the pre-disturbance wetland was capable of producing caribou biophysical habitat, that area will be restored back to
    - a wetland found in the natural sub-region capable of producing caribou biophysical habitat; or
    - an upland ecosite capable of producing caribou biophysical habitat.

Restoration Level 3 means:

- within an upland ecosite,
  - re-establish a plant community found in the natural sub-region,
  - re-establish trees if trees were on the site pre-disturbance,
  - if the upland ecosite is within a caribou range and if the pre-disturbance ecosite was capable of producing caribou biophysical habitat, that area shall be restored back to an ecosite capable of producing caribou biophysical habitat.
- within a wetland,
  - re-establish trees if trees were on the site pre-disturbance, and
  - if the wetland is within a caribou range and if the pre-disturbance wetland was capable of producing caribou biophysical habitat, that area shall be restored back to
    - a wetland found in the natural sub-region capable of producing caribou biophysical habitat; or
    - an upland ecosite capable of producing caribou biophysical habitat;
- End pit lakes are permitted.

Figure 5: Restoration Levels
For all levels – a pre-disturbance site capable of producing caribou biophysical habitat must be restored to a site capable of producing caribou biophysical habitat.



Policy Objectives and Requirements

12.1 Provide certainty of restoration outcomes.

12.1.1 Restoration Level 1 is required for:

12.1.1.1 Temporary dispositions (e.g. temporary field authorizations).

12.1.1.2 Disturbances approved within forest annual operating plans (excluding forest harvest).

12.1.1.3 Restoration of all lands in an exploration approval not occupied by receiver or source lines.

12.1.1.4 Pipeline dispositions (excluding vegetation control corridor).

12.1.1.5 Transmission line dispositions (excluding vegetation control corridor).

12.1.2 Restoration Level 2 is required to obtain a reclamation certificate for formal dispositions (except surface material, surface coal mining dispositions, rock-hosted metallic and industrial minerals dispositions).

12.1.3 Restoration Level 3 is required to obtain a reclamation certificate for surface material dispositions and coal dispositions.

12.1.4 Requirements to restore lands which are listed in this section are additional to reclamation requirements prescribed in regulation.

12.1.5 Where there is a conflict between a restoration level described in the sub-regional plan and other requirements prescribed by regulation, the requirements prescribed in the sub-regional plan will take precedence.

12.2 Rules to protect bighorn sheep and mountain goats.

12.2.1 Domestic ungulate grazing as a restoration treatment is not permitted within the mountain goat and sheep areas disease buffer.

13. Conservation Areas

Explore new and expanded conservation areas.

The Caw Ridge, Sulphur Ridge and Coal/Horn/Torrens Ridge (Conservation Area A) have been identified as areas that could be designated in consideration of their conservation value. The area includes alpine and sub-alpine habitat that are key for a number of species at risk and important for traditional land-use.

The upper foothills around Sheep Creek, montane areas west of the Smoky River and Sulphur River, and alpine and subalpine areas of Lightning Ridge (Conservation Area B) have also been identified as having significant value for conservation. This area contains a sensitive watershed and provides core habitat for endangered and threatened species. It also has significant potential for recreation opportunities.

The conservation potential of these areas was explored through assessments of potential mineral resources, ecosystem services, recreation and socio-economic value. Additionally, the Government of Alberta provided support for First Nations and Métis communities and organizations to complete traditional land use studies and participate in a working group.

First Nations and Métis communities and organizations identified the importance of the proposed areas to caribou populations and indicated support for a conservation area designation.

Designating these areas will help to conserve environmentally sensitive terrain, areas that support traditional use, and habitat for fish and wildlife, including caribou, mountain goats, bighorn sheep, grizzly bear, bull trout and American golden plover.

Outcomes

- Enhance conservation opportunities in the sub-region
- Support traditional land uses
- Maintain wilderness landscapes and low-impact backcountry activities
- Enhance opportunities for nature-based recreation and tourism

Nature-based recreation and tourism is compatible with the proposed conservation areas.

New recreation and tourism leases may be issued once the conservation areas are designated under the *Provincial Parks Act*.

Policy Objectives and Requirements

13.1 Manage activities located in the proposed conservation areas (identified in Figure 6) to minimize new land disturbance until they are designated under the *Provincial Parks Act*.

13.1.1 Establish the conservation areas under the *Provincial Parks Act.*

13.1.2 A disposition or an amendment to permit surface disturbances will not be issued, approved, or renewed in a conservation area.

13.1.2.1 Existing petroleum and natural gas tenure will be honoured.

13.1.2.2 Existing tourism and commercial recreation leases will be honoured.

13.1.3 A disposition for the purpose of coal exploration or mine development will not be issued, approved, or renewed in a conservation area.

13.1.4 An annual operating plan authorizing the harvesting of timber will not be approved or renewed in a conservation area except for the purpose of wildfire/insect and disease management.

13.1.5 Hunting, fishing and trapping will continue in accordance with existing provincial laws.

13.1.6 Motorized recreation, including snow vehicles, will be permitted in areas identified on a map published by the Department as permitting off-highway vehicle use.

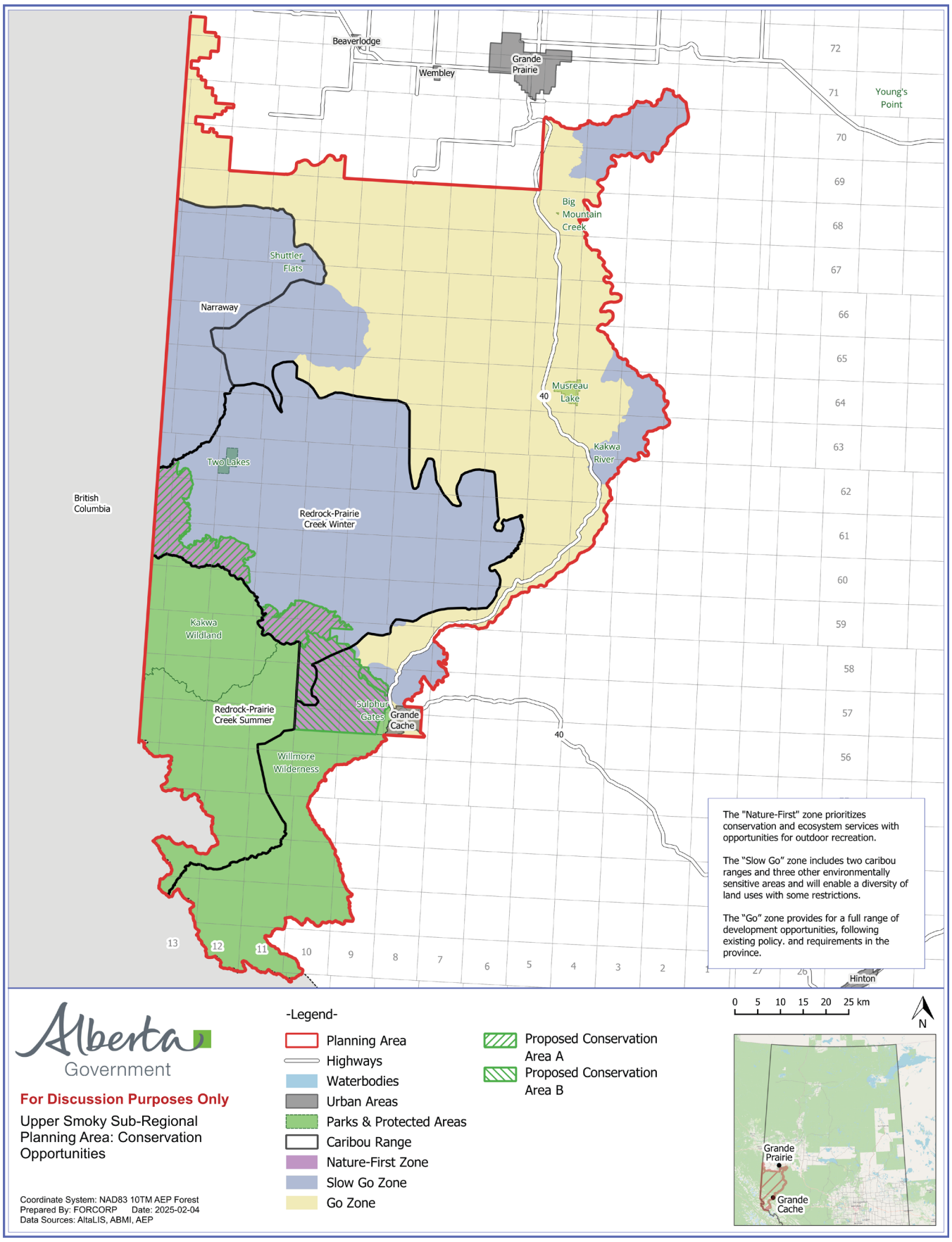
Honouring existing petroleum and natural gas tenure

Existing petroleum and natural gas and emerging well-based resources tenure will be honoured in new conservation areas, in accordance with existing policy. New petroleum and natural gas and emerging well-based resources tenure will be subject to a no surface access restriction.

This includes all subsurface and surface activities needed to explore for, develop and extract the resources defined in the existing agreement.

- This also includes renewing subsurface and surface dispositions, approvals, and agreements.
- Applications for new surface dispositions (e.g. a disposition for a well, road, pipeline or facility, etc.) required to access an existing subsurface commitment would also be honoured as necessary extensions to an existing commitment, subject to review through the current application and approval process.
- Applications for seismic programs associated with existing subsurface commitments will be reviewed through the current application and approval process.
- Limitations: Existing surface or subsurface commitments related to petroleum and natural gas within a conservation area cannot be used as a basis to access new subsurface rights within a conservation areas.

Figure 6: Conservation Areas



14. Legacy Seismic Lines

Treat legacy seismic lines to promote future contiguous habitats.

The sub-regional plan outcomes of supporting new development and increasing undisturbed habitat over the landscape cannot be achieved without restoring legacy seismic lines. Seismic lines in Alberta are primarily created to assess the occurrence of sub-surface oil, gas, and mineral resources. Modern seismic practices and technology have reduced the residual disturbance associated with seismic operations. However, many legacy seismic lines are not supporting forest re-growth and remain on the landscape decades after they were constructed.

Restoring these lines presents an opportunity to support a long-term working landscape, while improving ecological integrity. By removing economically unproductive footprint and reducing landscape fragmentation, space for new developments can potentially be enabled, while mitigating additional impacts on biodiversity. Ongoing partnerships, including funding arrangements with industry and the federal government, are important since restoring these features will require a coordinated effort. To coordinate this work, the Government of Alberta established the Caribou Habitat Recovery Program to fund and direct restoration priorities, guide operations, and continue local and Indigenous involvement. To support the ongoing restoration of legacy seismic lines, a formula will be developed to ensure that both existing and new proponents contribute in a fair and equitable manner.

Outcomes

- Maintain economic opportunities and investor certainty
- Manage footprint
- Support traditional land uses

Policy Objectives and Requirements

14.1 Restore all legacy seismic lines within the sub-region.

14.1.1 Through the Habitat Recovery Program, coordinate the restoration of legacy seismic lines within the “slow go” zone. This restoration is an opportunity to increase undisturbed habitat with a goal of restoring 50% of these seismic lines with 25 years.

14.1.1.1 Seismic lines that overlap the first four forest harvest timing series (Figure 3) will not be considered for restoration until after forest harvesting is completed.

14.1.2 Through the Habitat Recovery Program, coordinate the restoration of legacy seismic lines within the “go” zone with a goal to contribute to undisturbed habitat and improve access to allow for the exercise of treaty rights.

14.1.3 A legacy seismic line restoration component will be included as part of surface rent for formal dispositions within the “slow go” zone.

15. Implementation

Establish a process to incorporate local land use perspectives during the implementation of this plan.

Working through the details of implementation will be critical to the overall success of the plan. In order to accomplish this, the Government of Alberta will work with Indigenous peoples and organizations, local municipalities, energy and forestry sectors, and others as appropriate.

Outcomes

- Manage footprint and conserve multi-species
- Support traditional land uses
- Attract sustainable recreational pursuits
- Maintain economic opportunities and investor certainty

16. Monitoring

Monitor individual and cumulative effects and adapt management in response to species and landscape indicators.

The sub-regional plan will address a range of cumulative effects across the sub-region. A common approach to assessing the effects of cumulative disturbances is to use species and landscape indicators to understand risks to environmental values associated with human disturbances. A set of indicators have been identified to assess the implications of land uses (Appendix D).

In addition to these, regulators collect information and data about the activities they authorize. Making this information available to all regulators will be critical to ensuring each regulator is operating using the most up-to-date information and authorizing activities in alignment with the plan objectives and outcomes.

Outcomes

- Manage footprint and conserve multi-species

Policy Objectives

16.1 Monitor key indicators to support evaluation of the plan.

16.1.1 Regulators authorizing activities in the sub-region will share information and data between each other for efficient implementation and review of the sub-regional plan.

17. A Living Plan

Ensure regular assessments of plan effectiveness and adjust management approaches as needed to reflect social, economic, and environmental circumstances.

Building on monitoring and reporting, regular sub-regional plan assessments will be important to ensure positive environmental, economic, and social outcomes. Sub-regional plans can be adapted over time to ensure land-use plans remain effective.

Outcomes

- Maintain economic opportunities and investor certainty
- Manage footprint and conserve multi-species
- Support traditional land uses
- Attracting sustainable recreational pursuits

Policy Objectives and Requirements

17.1 Regularly assess the effectiveness of the sub-regional plan and adjust as necessary.

17.1.1 The plan will be reviewed five years after coming into force and at 10 years, and every 10 years afterwards.

17.2 Ensure relevancy of the plan in the event of natural disturbances.

17.2.1 A plan assessment will also be triggered if:

17.2.1.1 The annual total natural disturbance within a caribou winter range exceeds 1%.

17.2.1.2 Within eight years of the plan coming into force the cumulative new natural disturbance exceeds 4% of a caribou winter range.

17.2.1.3 Within 10 years of the plan coming into force the cumulative new natural disturbance area exceeds 4% of the entire sub-region.

Glossary

Term	Definition
Access Control	deterring access to and travelling on linear features by off highway vehicles and may include, but is not limited to debris roll back, tree felling or bending across the line, and reforestation site preparation
Access Control Plan	a plan submitted as part of the geophysical program application that will be implemented following the completion of the program
Active Well	a well that is producing oil or gas, injecting fluids, or disposing of waste
Aggregated Harvest	harvest planning that concentrates forestry activities in space and time. This results in large, generally contiguous patches of young forest that should better imitate large natural disturbance patterns created by fire
Annual Operating Plan	a plan prepared and submitted by the timber disposition holder each year to the Department, which when approved, provides the authorization to harvest
Annual Operating Plan Approval	an authorization to harvest timber issued under the *Timber Management Regulation*
Appended Development	Means development that occurs approximately within 100 metres from the edge of the lands contained in the formal disposition for a primary road;
Anthropogenic Footprint	the visible alteration or conversion of native ecosystems to temporary or permanent recreational, agricultural, or industrial landscapes by human use
Brine-hosted metallic and industrial minerals	metallic and industrial minerals typically found in underground saltwater extracted through well infrastructure
Caribou Biophysical Habitat	habitat containing characteristics required by caribou (*Rangifer tarandus*) to carry out life processes necessary for survival and recovery within caribou ranges in Alberta as identified through the methodology and classification system published by the Department, as amended or replaced from time to time
Caribou Occupancy	caribou occupancy is determined by a minimum convex polygon created using the previous 20 years of caribou telemetry location point data and associated movement lines
Caribou Range	those lands identified as caribou range in Figure 7
Closed HTS	a HTS during which timber harvesting is not permitted
Coal Exploration	a temporary activity directly associated with access and exploration on public land for the purpose of evaluating a coal resource primarily through test pits and core holes
Coal Mine Development	construction or work to clear a site, build an access road, excavate, build structures, install equipment and any other associated infrastructure
Commercial Recreation	Instructing/guiding/outfitting activities (for example, commercial trail riding, dog sled tours, heli-ski tours, fishing, game hunting, off-highway vehicle tours, etc.) or developments that offer facility-oriented recreational, tourism, or accommodation services or programs to the general public on public land for which a consumer pays a fee and which the operator requires a permit or disposition
Conservation Area	means the lands identified as a conservation area in Figure 9 that are intended to be designated under the Provincial Parks Act
Critical Sour Well	a well designated by the regulator as a well for drilling purposes with an H_2S release rate greater than or equal to 2.0 m3/second or other wells with a lesser H_2S release rate in close proximity to an urban centre
Decision-maker	a decision-maker as defined under the *Alberta Land Stewardship Act*
Designated Trail	a trail used for recreation and has been designated under section 4(1) of the *Trails Act*
Development	includes construction or work to clear a site, build an access road, carry out excavations, build structures or install equipment or any combination of these
Disposition	a disposition as defined under the *Public Lands Act*

Term	Definition
Disturbance	In respect of public land, means human activity that moves or removes one or more of the following features of the public land or that alters or results in the alteration of the state in which it existed before the human activity occurred, and includes any change in the intensity, frequency, or nature of the human activity:(i) vegetation (ii) soil (iii) subsoil (iv) bedrock (v) landform (vi) wetland (vii) waterbody or watercourse (viii) air flow or wind currents (ix) ambient sound volumes (x) light or shade
Disturbed Habitat	Habitat showing: i) human-caused disturbance visible on Landsat at a scale of 1:50,000, including habitat in a 500-metre buffer of the human-caused disturbance; and/or ii) fire disturbance in the last 40 years, as identified in data from each provincial jurisdiction (without buffer)
Dogleg	a sharp bend in a linear disturbance to reduce the line of sight
Ecosite	an ecosite as defined by Beckingham, J.D., Archibald, J.H. (1996) in the "Field Guide to Ecosites of Northern Alberta"
End Pit Lake	a body of water that is created by and remains after the reclamation of a pit
Equivalent Clearcut Area (ECA)	a coarse filter indicator specified for a watershed that describes the hydrological effect of the parameters associated with a harvest area at a given point in time
Existing Primary Road	a road identified as an existing primary road in Figure 2
Exploration Approval	an exploration approval as defined under the *Mines and Minerals Act*
Extraction	In respects to sand and gravel operations, this includes the stripping and stockpiling of soil, overburden, and aggregate materials and the transport of said materials within the site.
Footprint	The impact or extent of a disturbance on public land. This includes the intensity, frequency, and nature of any uses or activities related to the disturbance.
Formal Disposition	a formal disposition as defined under the *Public Lands Administration Regulation*;
Forest Management Activity	any activity on the lands contained in the applicable timber disposition regulated by the *Forests Act* or the *Timber Management Regulation*, or both, and excludes the harvesting of timber
Forest Management Agreement (FMA)	a renewable 20-year agreement between the government and a company that grants the company the rights and obligations to manage, grow, and harvest timber on a specific area in a manner designed to provide a yield consistent with sustainable forest management principles and practices.
Future Primary Road	a road requiring a formal disposition, and that meets the requirements of section 2
Geophysical Exploration	surveying that is aimed at the subsurface investigation of the earth and requires the application of geophysical sciences, but does not include drilling
Green Area	comprises most of northern Alberta as well as the mountain and foothill areas along the province's western boundary and is managed for timber production, watershed, wildlife and fisheries, recreation, and other uses.
Habitat Restoration	The practice, process, or result of active human intervention and treatments to renew and restore degraded, damaged, or destroyed ecosystems and habitats. Habitat restoration aims to protect and restore critical "services" that the environment provides.
Harvest Area	an area with defined boundaries where timber harvesting is scheduled, or has occurred
Harvest Timing Series (HTS)	the time period for the harvesting of timber within an area identified in Figure 3 and does not apply to a forest management activity
Heli-portable Drop Zone	program drill sites with a cleared or open area for helicopter access
Holder of an Exploration Approval	the current and any former holder of the exploration approval
Holder of a Formal Disposition	the current and any former holder of the formal disposition
Inactive Well	For critical sour wells (perforated or not) that have not reported any type of volumetric activity (production, injection, or disposal) for six consecutive months, and For all other wells that have not reported any type of volumetric activity (production, injection, or disposal) for 12 consecutive months but does not include observation wells, water source wells and any other wells authorized for another purpose by the regulator
Inactive Well Site	land that contains one or more inactive wells that have been inactive for five years or more and no active wells
Indigenous peoples	"Indigenous peoples" includes "aboriginal peoples of Canada" within the meaning of Section 35 of the Constitution Act, 1982

Term	Definition
Key wildlife and biodiversity zones	Areas designated to protect the integrity of ungulate winter ranges, river corridors and biodiversity areas where species tend to concentrate, as shown on a spatial layer published by the Department, as amended or replaced from time to time
Legacy Seismic Line	a linear feature that has no legal ownership, was used for geophysical exploration, and is greater than four metres wide
Licensee	a licensee as defined under the *Oil and Gas Conservation Act*
Linear Feature	a linear feature that was used for geophysical exploration and no person has responsibility to restore prior to the coming into force of this Plan
Mountain Goat and Sheep Range	are areas delineating the natural range for mountain goat and sheep, as shown on a spatial layer published by the Department, as amended or replaced from time to time
Natural Disturbance	disturbance to the landscape that is not human caused including fire, wind, insects, floods, and landslides
Nature-based Tourism	Tourism that is undertaken largely or solely for the purpose of enjoying natural attractions and engaging in outdoor activities, whether for relaxation, discovery, or adventure (for example, camping, birdwatching, downhill skiing, hunting, mountain biking, motorized recreation, etc.)
Next Open HTS	the area identified in Figure 3 that will be available for harvest after the current open HTS
Objective	The desired result or goal in well-defined, measurable terms achievable in a certain timeframe. Translates the broad outcomes into more specific, quantifiable statements and guides content and direction of policy.
Off-highway Vehicle (OHV)	Means an off-highway vehicle as defined in the *Traffic Safety Act*
Open HTS	a HTS that is available for the harvesting of timber during the HTS identified in Figure 3
Outcome	an event, occurrence, or condition that results from an activity or program and has an actual effect on resources, the environment, or Albertans. For planning purposes, outcomes are the desired/expected endpoint or state and should guide the development and implementation of related programs. An outcome can be expressed as a business result or a resource/ environmental result. A program may have multiple outcomes for different timeframes and scales.
Outdoor Recreation	the experience that results from freely chosen participation in physical, social, intellectual, creative, and spiritual pursuits in an outdoor, nature-based setting that enhances individual and community wellbeing.
Planning Unit	a planning unit identified in a map published by the Government of Alberta
Plant Community	a collection or association of plant species within a designated geographical unit, which forms a relatively uniform patch, distinguishable from neighboring patches of different vegetation types, and it is a subdivision of the ecosite phase and the lowest taxonomic level in the hierarchy
Public Lands	land of the Crown in right of Alberta
Pre-disturbance	the state of the lands at a site prior to a human-caused disturbance and does not include natural disturbance
Primary Road	existing primary roads and those roads built under a formal disposition in accordance with section 2
Prime Protection Zones	areas designated to preserve environmentally sensitive terrain and valuable ecological and aesthetic resources
Quarry	any opening in, excavation in or working of the surface or subsurface for the purpose of working, recovering, opening up or proving (i) any mineral other than coal, a coal bearing substance, oil sands or an oil sands bearing substance, or (ii) ammonite shell, and includes any associated infrastructure
Receiver Line	a linear feature identified within the exploration approval, used exclusively for stringing geophones
Reclamation	any or all of the following: (i) the removal of equipment or buildings or other structures or appurtenances; (ii) the decontamination of buildings or other structures or other appurtenances, or land or water; (iii) the stabilization, contouring, maintenance, conditioning, or reconstruction of the surface of land; (iv) any other procedure, operation, or requirement specified in the regulations

Term	Definition
Reforest or Reforestation	re-establishing timber on lands in accordance with the requirements of the Reforestation Standard of Alberta and the Alberta Forest Genetic Resource Management and Conservation Standards under the *Timber Management Regulation*, as amended or replaced from time to time
Regulator	the Regulator as defined in the *Responsible Energy Development Act*
Regulatory Body	the regulatory body that issued the statutory consent
Restoration	the process of restoring site conditions as they were before the land disturbance
Right of Way (ROW)	a cleared area facilitating linear activities which contains an access road and its associated features (such as shoulders, ditches, cut and fill slopes) or the area cleared for passage of utility corridors containing power lines or over- or under-ground pipelines. Typically, the ROW is a specially designated area of land having very specific rights of usage attached.
Road Classification	a classification as published by the Designated Minister referred to in section 5, as amended or replaced from time to time with the highest road classification being class I and lowest road classification being class VI
Rock-hosted minerals	metallic and industrial minerals found in surface or subsurface rock formations. These are largely extracted through traditional surface mining methods (i.e., quarries)
Seismic Access Line	an existing or new linear feature used for access into and within the lands identified in the exploration approval
Seral Stage	a stage of forest succession. A series of plant community conditions that develop during ecological succession following a major disturbance to the climax stage. Most common characteristics/classifications include tree species and age
Source Line	a linear feature identified within the exploration approval, which energy source points are established for the purposes of generating seismic waves
Special Access Zone	areas managed for contiguous natural habitat within an intensively developed landscape
Stand or Stand Type	a community of trees sufficiently uniform in species, age, arrangement, or condition as to be distinguishable as a group in the forest
Statutory Consent	statutory consent as defined in the *Alberta Land Stewardship Act*
Step in Progression	refers to restoration steps to achieve level 2 restoration and includes: (i) dismantling surface infrastructure (ii) decontamination of the surface and subsurface (iii) completing all remaining activities to meet level 2 restoration of the land, including landform construction and recontouring, clean material placement (as required), reclamation material placement, and revegetation (iv) application for reclamation certificate, (v) issuance of reclamation certificate
Sub-regional Plan	sub-regional plans address location-specific issues through the integration of higher-level plans, policy, and operational requirements. Plans are outcome based, provide clear operational direction, and must be considered when making decisions in the planning area. Enabled through the Alberta Land Stewardship Act and ministry legislation (for example, Public Lands Act), sub-regional plans are built through a collaborative process and include input and feedback from Indigenous peoples and organizations, stakeholders, and the public
Sub-regional Plan Area	the geographical area identified in Figure 1
Surface Material	sand, gravel and borrow and does not include peat
Surface Mine (coal)	a strip mine or open pit mine or a mine worked by any other surface mining method including auger mining
Temporary Field Authorization (TFA)	any authorization for the occupation and use of public land issued under the *Public Lands Act* and includes but is not limited to authorizations issued for a coal exploration program, oil sands exploration program, surface material exploration or metallic mineral exploration
Temporary Field Authorization Road	a road that is authorized under a temporary field authorization
Temporary Footprint	any temporary surface disturbance outside of a harvest area authorized by an annual operating plan including a temporary road, landing, or storage site
Temporary Road	a road that provides access within a harvest area or that connects harvest areas, and that is authorized under an annual operating plan under the *Timber Management Regulation*
Timber Salvage	the harvesting of timber damaged or destroyed by a natural disturbance authorized under an annual operating plan approval
Timber Year	year as defined in the *Timber Management Regulation* (the period from May 1 to April 30th)

Term	Definition
Traditional Uses	for the purposes of this plan, “traditional uses” has the same meaning as in the Government of Alberta’s policies on consultation with First Nations and Metis Settlements on land and natural resource management as those policies may read at any one time
Traditional Land Use	for the purposes of this plan, in the context of Indigenous peoples, this includes both Treaty Rights and Traditional Uses, and harvesting by recognized Métis harvesters
Trail	infrastructure that is purposefully built and used for one or more recreation activities located on Crown land
Trail Management Plan	a plan established by the Designated Minister referred to in section x that identifies the location of a designated trail and permitted uses for a trail
Transmission Line	a line greater than 25 kilovolts
Treaty Rights	constitutionally protected rights to hunt, trap, and fish for food. These rights may be practiced on unoccupied Crown lands or lands to which First Nations members have right of access for such purposes
Tourism	the activity of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business, and other purposes not related to the exercise of an activity remunerated from within the place visited. A tourism trip occurs when visitors take an overnight trip or a same-day trip of more than 40 kilometres (one-way) outside of their home community
Trumpeter Swan Water Body	a water body or water course with known breeding trumpeter swans present as shown on a spatial file published by the Department
Undisturbed Habitat	means the sum of habitat calculated using the federal recovery strategy methods and accounts for all existing anthropogenic footprint and statutory consent for activities that will cause anthropogenic footprint and natural disturbance
Upland	any land that is not a wetland
Vegetation Control	the selective removal, control or other management of vegetation growth
Watercourse Management Area	areas as identified as a watercourse management areas in as delineated and published by the Government of Alberta
Well	an orifice in the ground completed or being drilled for the production of oil or gas, for injection to an underground formation, or as an evaluation well or test hole
Wetland	a wetland as defined in the “Alberta Wetland Policy”, published by the Department, as amended or replaced from time to time
Wetland Class	a wetland class as described in the Alberta Wetland Classification System, published by the Department, as amended or replaced from time to time
White Area	the settled portion of the province, consists of the populated central, southern, and Peace River areas of the province. In the White Area, public land is part of the agricultural landscape. It is managed for various uses, including agriculture, recreation, soil and water conservation, and fish and wildlife habitat

Appendix A – Landscape Delineations

A map of the wildlife sensitive areas can be found in Figure 7.

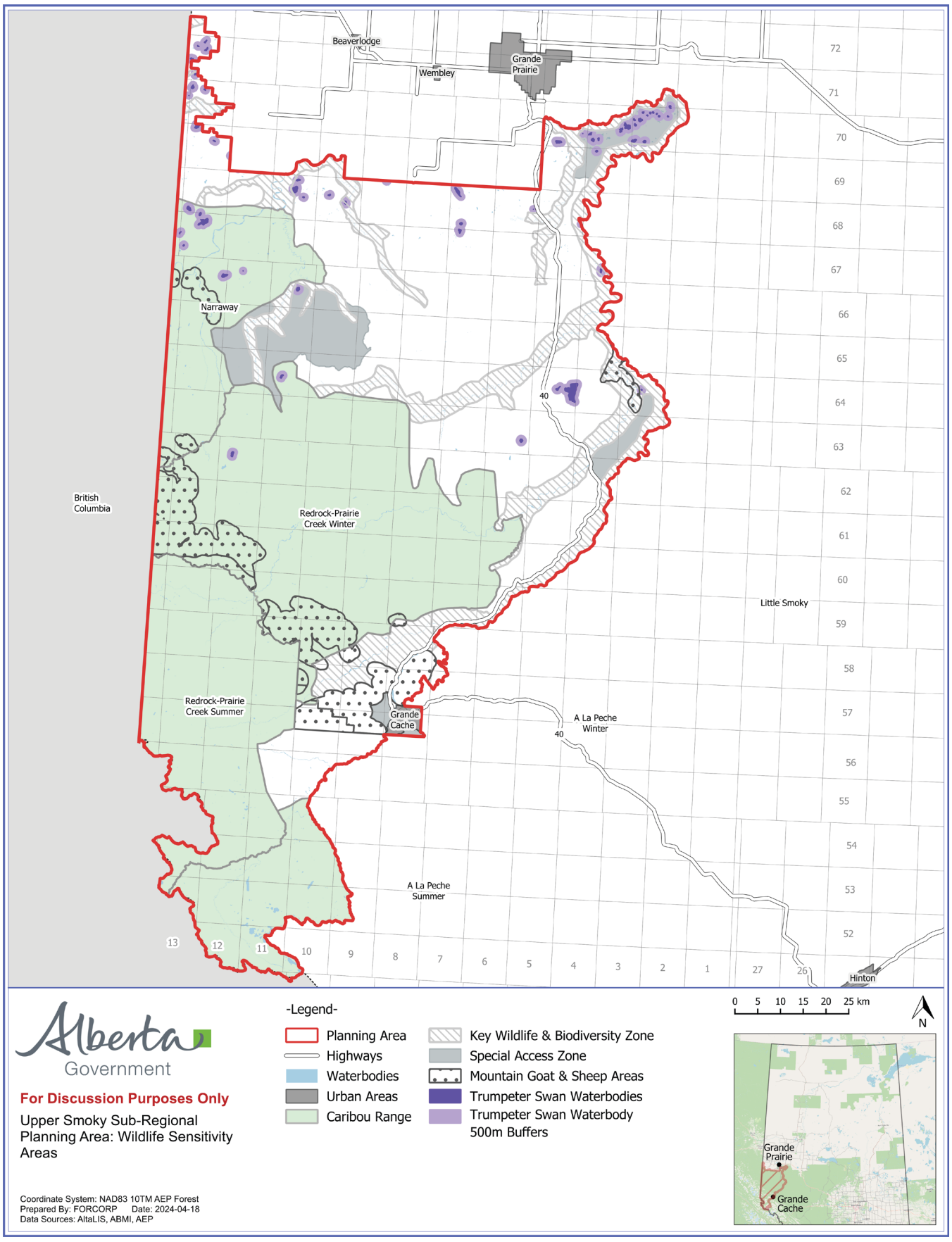
Species Specific Landscape Delineations

- **Woodland caribou** have declined in numbers, due to human-caused habitat change and loss, which has resulted in caribou population and distribution declines. Landscape changes have resulted in more frequent encounters between predators, including wolves and grizzly bears, resulting in higher predation of caribou. Both the Redrock-Prairie Creek and Narraway caribou populations are currently at high risk of population loss, which is being avoided through the Government of Alberta's annual predator control efforts, such as wolf population reductions. Alberta's caribou population and distribution monitoring program is the most robust in Canada.
- **Grizzly bear** is listed as a threatened species under Alberta's Wildlife Act and are negatively affected by motorized access, particularly mortality associated with the occurrence of roads. Access management in core and secondary habitat areas is a key strategy to maintain grizzly bear populations. Grizzly bears are also a predator of other species, such as caribou.
- **Mountain goat and bighorn sheep** are sensitive to human disturbances, especially habitat alteration and access development. Avoiding habitat alteration and access routes in identified mountain goat and sheep ranges is important for populations to recover and/or be sustained in the sub-region.
- **Bull trout** is a cold-water native trout species. They are classified as threatened under Alberta's Wildlife Act and are sensitive to disturbance of watercourses that create barriers to fish movement or increase sedimentation or water temperature. Maintaining fish passage and the quality of in-stream and riparian habitats are key to conserving bull trout in the sub-region.
- **Trumpeter swan** is a migratory waterfowl species that nests on shallow lakes and marshes in the parkland and boreal forests of Alberta and is sensitive to human disturbances particularly during its breeding season. The species was near extinction globally in the early 1900s. At that time, the last remaining individuals from the Rocky Mountain Population nested in the Grande Prairie area, which included waterbodies in the Upper Smoky sub-region. In Alberta, conservation efforts, such as buffers around known breeding sites, have coincided with population recovery. Continuing these efforts is essential to ensure that trumpeter swans are sustained in the sub-region.

Additional Landscape Delineations

- **Special Access Zones** in the Upper Smoky sub-region are areas of natural habitat that include essential wildlife refugia and unique features such as the sand dunes in the confluence of the Wapiti and Smoky rivers. Land use disturbances in these areas could result in the loss of essential habitat for species and unique landforms in the sub-region.
- **There are existing Prime Protection and Critical Wildlife Zones** in the sub-region due to their environmentally sensitive terrain, valuable ecological and aesthetic resources, and their importance for sustaining a variety of sensitive fish and wildlife populations.
- **Key Wildlife and Biodiversity Zones** are transitional areas between upland and aquatic ecosystems that often provide corridors for species movements and provide important winter habitat for ungulates such as moose and elk. They are also important for protecting soils and biodiversity and are often focal areas for exercising traditional land uses by Indigenous peoples.
- **Class A Watercourses** are critical fish habitat protection areas. Alberta's Water Act sets out a regulatory mechanism that governs certain activities within a water body through Codes of Practice. While not representing all of the habitat required to sustain fish populations, they are particularly important habitat areas that are sensitive to the effects of regulated activities.

Figure 7: Wildlife Sensitivity Areas



Appendix B – Management and Restoration of Linear Features

1.1.1 Where there is more than one adjacent pipeline disposition, the four-metre vegetation control area must be at least six metres away from any other areas that are vegetation-controlled.

1.1.2 Vegetation control is permitted within four metres around above-ground installations and infrastructure not approved under a separate disposition to allow for safe operations. This includes, but is not limited to, valve sites, remote metering stations (i.e., fly-in only), cathodic protection, and thermal electric generators.

1.1.3 Vegetation control is permitted on vegetation growth up to 1000 square metres in area for helicopter pads.

1.1.4 Clearings are permitted for maintenance or emergency response. These clearings must be of a temporary nature and subsequently restored to Restoration Level 1 within five years from the maintenance activity or emergency ending.

1.1.5 Implementation of human access limitations must occur within 3 years of constructing pipelines in 4.1.1 or transmission lines in 4.2.1

Table 2: Transition to low-impact seismic exploration techniques.

	Receiver lines must	Source lines must	Seismic Access Lines must
Width	not exceed 1.75 metres in width	not exceed 2.75 metres in width	not exceed 3 metres at any location on the line
	meander to limit line of sight to less than 50 meters	meander to limit line of sight to less than 100 meters	
Watercourse management areas	within the watercourse management area be cut to a maximum of 1.75 metres	within the watercourse management area be cut to a maximum of 1.75 metres	within the watercourse management area be cut to a maximum of 1.75 metres
		Turn-around clearings at the end of source lines are permitted.	
Doglegs	Doglegs must be employed at intersections with all linear features that are greater than 3.5 metres in width	Doglegs must be employed at intersections with all linear features that are greater than 3.5 metres in width	Doglegs must be employed at intersections with all linear features that are greater than 3.5 metres in width
Tree Avoidance	employ tree avoidance techniques	employ tree avoidance techniques	
Helipads	Helipads must be constructed in natural open areas or existing clearings where they exist. If required, prepared helipads must not result in clearings that exceed 1000 square metres in area		
Shot holes	Shot holes drop zones used in heli-portable programs must not exceed 16 square metres		
Access control	Access control must be established and extended for 100 metres from intersections with all linear features which are greater than 3.5 metres in width and must effectively deter off-highway vehicle use. Access control options may include, but are not limited to: debris roll back; tree felling or bending across the line; and reforestation site preparation		

Appendix C – Recreation Areas in the Sub-Region

Big Mountain

Support motorized recreation and tourism opportunities in proximity to Grande Prairie and adjacent communities.

- Designate a trail area to formalize and protect trail infrastructure within a multiple-use landscape and highlight this area for winter motorized use.
- Develop trail management plans, including detailed assessments, to designate or restore trails, protect trail infrastructure, and enable trail connectivity in alignment with historical, cultural, wildlife and conservation values, in a multiple use landscape.
- Use area-based tools to manage recreation activities across sensitive lands and riparian areas.
- Expand Big Mountain Creek Provincial Recreation Area to potentially include lands identified in an existing adjacent reservation for recreation purposes.

Cutbank

Provide enhanced structured camping opportunities and water-based experiences.

- Develop trail management plans, including detailed assessments, to designate or restore trails, protect trail infrastructure, and enable trail connectivity, in alignment with historical, cultural, wildlife and conservation values, in a multiple use landscape.
- Explore tourism and commercial recreation planning and development opportunities, while focusing efforts to plan and manage camping activity in this area.
- Use area-based tools to manage recreation activities across sensitive lands and riparian areas.
- Reclassify Musreau Lake Provincial Recreation Area to a Provincial Park to better reflect current management intent while maintaining current uses.
- Explore the potential for expanding the boundary of the Kakwa River Provincial Recreation Area to enhance tourism and recreation potential of the Cutbank area.

Grande Cache

Manage trail access across sensitive lands and riparian areas and provide opportunities for self-guided and commercially operated recreation and tourism.

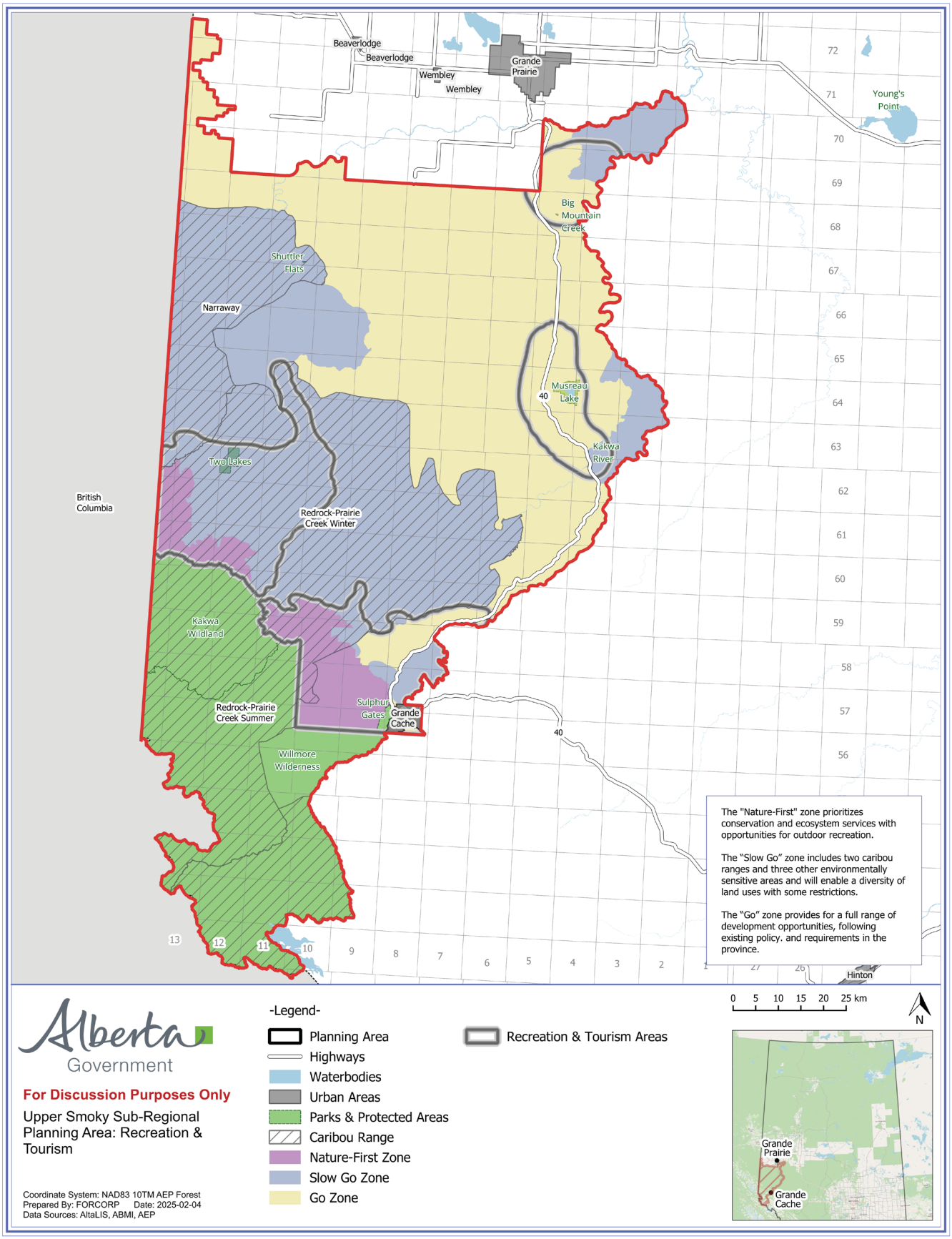
- Develop trail management plans, including detailed assessments, to designate or restore trails, protect trail infrastructure, enable trail connectivity, in alignment with historical, cultural, wildlife and conservation values, in a multiple use landscape.
- Ensure recreation and tourism management is considerate of and consistent with caribou conservation and recovery requirements.
- Use area-based tools to manage recreation activities across sensitive lands and riparian areas.
- Upgrade and modernize Sulphur Gates Provincial Recreation Area. Reclassify Sulphur Gates Provincial Recreation Area to a Provincial Park to better reflect the current management intent while maintaining existing uses and exploring the potential for expanding the boundary.

Kakwa

Maintaining rustic and backcountry experiences in a scenic landscape.

- Develop trail management plans, including detailed assessments, to designate or restore trails, protect trail infrastructure, and enable trail connectivity, in alignment with historical, cultural, wildlife and conservation values, in a multiple use landscape.
  - Ensure recreation and tourism management is considerate of and consistent with caribou conservation and recovery requirements.
- Use area-based tools to manage recreation activities across sensitive lands and riparian areas.
  - This includes developing and applying rules for trail use, potentially including trail timing restrictions to support conservation and management of wildlife and environmental values, particularly in relation to populations and habitats of native trout, caribou, grizzly bear, mountain goat and sheep.
- Upgrade and modernize (facilities, services, and trails) Two Lakes Provincial Park to support and enable high quality visitor opportunities.

Figure 8: Key Areas for Recreation & Tourism



Appendix D – Monitoring Indicators

Table 3: Monitoring Indicators

Indicator	Target species or ecological function	Description
Caribou biophysical habitat	Caribou	Amount, forest cover type, and trend of biophysical habitat attributes to assess caribou recovery.
Caribou occurrence and movement patterns	Caribou	Identification of habitat areas under active use to inform planning and focus of restoration efforts.
Caribou population size, demographic rates and growth	Caribou	Estimated number of caribou and trends in population size, including estimates of growth (lambda).
Disturbed/ undisturbed caribou habitat	Caribou	Amount and trend of undisturbed habitat as defined by the recovery Strategy for Boreal Woodland Caribou (2012).
Natural disturbances	Habitat provision	Size and location of natural disturbances across the sub-region, to inform management strategies such as sustainable harvest levels. May inform future re-openings or revisions of the sub-regional plan.
Stream Connectivity	Bull Trout; Hydrologic connectivity	The amount of connected habitat (%) between upstream and downstream segments within a stream network.
Landscape connectivity	Species movements	The degree to which the landscape facilitates or impedes species movements among resource patches. Calculated for both upland and lowland habitats.
Linear Density	Grizzly Bear; Bull Trout; Landscape connectivity	The density of all linear features including roads, trails, pipelines and seismic lines (km/km^2) including legacy and temporary features where re-vegetation has not yet been initiated.
Hydrologic Footprint Recovery	Bull Trout; Hydrologic regulation	The amount of forest area disturbed (%) from natural and anthropogenic disturbances, with consideration given to revegetation and recovery of hydrologic function.
Interior Habitat	Forest songbirds; Terrestrial habitat provision	The amount of habitat (%) left unaffected after taking out anthropogenic disturbances and associated edge effects.
Riparian and wetland native cover	Bull Trout; Aquatic habitat provision; Water Quality Regulation	The amount of wetland and riparian area free from anthropogenic disturbances. Calculated for each of Riparian, Bogs, Fens, Marshes, and Swamps.
Forest Structure	Terrestrial habitat provision and diversity; Habitat specialists	The variety of forest structure on the landscape, estimated using the amount of area (%) in each forest stand type by seral stage.
Suitable Habitat	Forest Songbirds; Grizzly Bear; Barred Owl; American Marten	Change in suitable habitat (%) relative to a baseline condition for a range of species including forest songbirds, grizzly bear, barred owl and american marten.
Restoration of legacy seismic lines	Caribou; Habitat provision	Kilometres of line restored, either through active restoration or by field-confirmed natural recovery
Wildfire Ignition Exposure	Habitat provision	The level of wildfire ignition exposure, calculated as a landscape metric using the proximity of nearby hazardous fuel capable of transmitting fire.

Indicators will be assessed and reported on using reporting units based off HUC 10 watersheds.