
Red Earth

Sub-regional Plan



DRAFT VERSION
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Contents

Part 1 – Introduction	1
Part 2 - The Sub-region.....	3
Part 3 – Approaches.....	8
Indigenous knowledge and traditional land uses.....	12
Access management.....	14
Energy.....	19
Linear features	23
Forestry.....	26
Mitigate wildfire risks	31
Restoration.....	32
Surface materials	36
Peat.....	38
Recreation and tourism	39
Grazing.....	43
Public lands.....	44
Legacy seismic lines	45
Other disturbances	46
Monitoring	47
Implementation committee	49
Plan review.....	50
Glossary	52
Appendix A - Permitted activities.....	60
Appendix B - Monitoring indicators.....	61
Appendix C - Caribou biophysical habitat criteria	64

List of figures and tables

Figure 1. Red Earth sub-region	6
Figure 2. Caribou and bison ranges	7
Figure 3. Planning zones (will be included as part of the regulatory details).....	10
Figure 4. Access management Plan.....	18
Figure 5. Existing Harvest Timing Series (First three decades)	30
Figure 6. Recreation Management Areas.....	42
Table 1. Primary road management thresholds (km)	17
Table 2. Restoration ratios for new primary roads that exceed the primary road management thresholds in Table 1.	17
Table 3. Targets for area (ha) of inactive well pads to be restored.	22
Table 4. Examples of restoration levels by activity type	335
Table 5. Compartment a surface materials footprint thresholds	37
Table 6. Permitted activities	59
Table 7. Monitoring indicators	61
Table 8. Socio-economic monitoring indicators	63

Part 1 – Introduction

Overview

Alberta's public lands are the foundation for our resource-based economy, community well-being and traditional land uses. Alberta is committed to creating sub-regional plans that feel familiar and are consistent where it is sensible to do so, while ensuring each plan reflects the distinct conditions and needs of its region.

This plan manages footprint from various land uses to allow economic development in the region while also improving the overall landscape condition for people and the environment. The plan recognizes that this sub-region will continue to be a critical contributor to the province's energy future and the approaches in this plan support Alberta's goal to double oil and gas production.

The Red Earth sub-region differs from other sub-regions in three key areas: the geography and terrain, the type of energy production, the nature of forest tenure and a large peat extraction potential.

Vision

The Red Earth sub-region allows people, communities and nature to thrive together by having a diverse economy and a working landscape while sustaining critical habitats for multiple species. The sub-region's forests, wetlands and wildlife allow residents to enjoy recreation, cultural activities and traditional land uses for current and future generations.

Outcomes

Over the next three decades, this sub-regional plan is intended to achieve positive trends for economic, environmental and social outcomes. Approaches and requirements in this plan focus on achieving three strategic outcomes:

Outcome 1 - Supporting economic opportunities that provide benefits to local municipalities, Indigenous peoples, and all Albertans.

Outcome 2 - Consolidate and manage development over time to support landscape intactness and naturally self-sustaining plant and wildlife populations with a focus on species at risk.

Outcome 3 - Support recreational, cultural, and traditional land uses, including the practice of constitutionally recognized rights in the sub-region, for the benefit of local people, Indigenous peoples, and all Albertans.

The Red Earth sub-region is split into two zones: the Go Zone and the Nature-first Zone. Each zone will be managed to achieve a specific priority outcome, such as to support traditional land use and habitat enhancement,

and to enable economic development. Each section of the plan includes specific direction on how the plan's outcomes will be met through application of restoration, surface access restrictions, integrated land management or operational requirements. Some requirements apply within a specific zone, and some apply across the sub-region.

In coordination with the mandatory five-year evaluation and 10-year review required under the *Alberta Land Stewardship Act* (ALSA), all aspects of the plan will be reviewed every 10 years, ensuring that it continues to enable development and increased production while also minimizing environmental impacts and restoring habitat.

The sub-regional plan intends to show how management actions improve the landscape over the next 20 to 30 years with an ultimate goal of landscape intactness within caribou habitat of 65 per cent at 100 years. As the plans are evaluated every five years and reviewed every 10 years, this approach allows the Government of Alberta to adjust the management actions or other plan elements to ensure that landscape intactness continues to improve over time.

Part 2 - The Sub-region

The Red Earth Sub-region is located primarily within the central portion of the Lower Peace Region, with portions in the Lower Athabasca and Upper Athabasca regions, covering 61,306 km² (Figure 1). The sub-region is situated in northern Alberta and encompasses boreal forests, wetlands, river systems and agricultural land. The sub-region spans from the Peace River in the north to the Peavine Metis Settlement in the south, with its eastern boundary generally following the Utikuma, Liege and Island Rivers and its western boundary generally aligned with the Peace River.

The Red Earth sub-region includes sectors such as oil and gas extraction, agriculture, forestry, sand and gravel extraction, tourism and recreation. The sub-region has industrial developments, including five forest management agreement areas overlapping the sub-region (57% of the sub-region), oilsands tenure (24.7% of the sub-region), petroleum and natural gas subsurface agreements (9.7% of the sub-region), metallics and industrial minerals (2.6% of the sub-region) and grazing dispositions (0.1% of the sub-region). Natural resources, particularly forestry and oil and gas, are a large part of the local economy in the Red Earth Sub-region. The forestry sector employs 1,370 people, and oil and gas employs 200.

Four Wildland Provincial Parks (WPP) are within the Red Earth sub-region: 1) Birch River, 2) Birch Mountains, 3) Kitaskino Nuwenene and 4) Winagami. There are also two provincial parks (Notikewin, Winagami Lake), the Harper Creek Natural Area and several Public Land Recreation Areas.

The Red Earth sub-region is home to the Red Earth caribou range and three wood bison ranges (Wabasca, Garden River and Ronald Lake) (Figure 2). This caribou range is categorized as boreal caribou and the region encompasses almost 92% of the range for the Red Earth herd. Red Earth also encompasses almost 100% of the Wabasca bison herd, 68% of the Ronald Lake bison herd and 15% of the Garden River bison herd range.

First Nations 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. There are many First Nations reserves and two Metis Settlements located within the Red-Earth sub-region. This plan was developed with consideration of Indigenous traditional land use including Treaty rights, values and perspectives, as well as the economic and social benefits to First Nations and Métis peoples.

Managing a working landscape

Industrial activity in the Red Earth sub-region is largely related to natural resource extraction, particularly forestry and oil and gas. Other drivers of economic activity in the sub-region include agriculture, sand and gravel extraction and tourism. Additionally, services to support resource-related economic activity are housed in most communities in the region, including professional services, public services and environmental reclamation services.

Industry	GDP (millions)	Labour force
Oil and gas	\$462	200
Forestry	\$290	1,370
Agriculture	\$33	280

Over the coming decades, Alberta has a goal to double oil and gas production to meet the demands of safe, affordable, reliable energy and North American energy security.

Agriculture is an integral part of the sub region’s communities, contributing both through food and forage production and as a key source of labour for the forestry and oil and gas sectors. Farm income is often supplemented by employment in these industries, creating a relationship that carries both positive and negative tensions as all rely on the same land base and labour pool.

Access to Crown grazing dispositions is also essential for some producers, reducing pressure on private land and allowing them to diversify those parcels for cropping, hay or other enterprises. This combination of diversified land use and off farm employment contributes to the long-term viability and resilience of family farming operations and strengthens their connection to the broader regional economy.

The timber industry provides direct employment opportunities through forestry, logging, wood product and paper manufacturing jobs located inside and outside the sub-region. Alberta is proud to have world class operators upholding responsible forest management and stewardship on the landscape. In the spirit of responsible forest management, reducing and managing for wildfire risk continues to be important to communities, the environment and the economy.

The lakes, forests and wildlife in the sub-region create recreational opportunities that are a strong draw for the local and regional tourism industry with benefits to local communities and municipalities. Alongside other land uses, sustainable tourism development, including Indigenous-led tourism, helps diversify local economies, enhances regional identity and provides long-term benefits to Albertan’s while maintaining natural landscapes.

Pursuing a working landscape means considering the economic contributions of these sectors in relation to each other, including the potential for future economic diversification opportunities. To address future economic opportunities while supporting social and environmental outcomes requires suitable lands be available for Indigenous traditional land uses and ways of life and recreational pursuits. Additionally, 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, forestry and critical minerals and ensure energy security and affordability for Albertans and Canadians.

Management direction on the scale, pace and location of development in the Red Earth sub-region can help achieve the three strategic outcomes. This plan outlines policy objectives and management approaches and requirements for land uses to sustain economic opportunities, landscape intactness, sustainable plant and wildlife populations, and recreational, cultural and traditional land uses into the future.

Figure 1. Red Earth sub-region

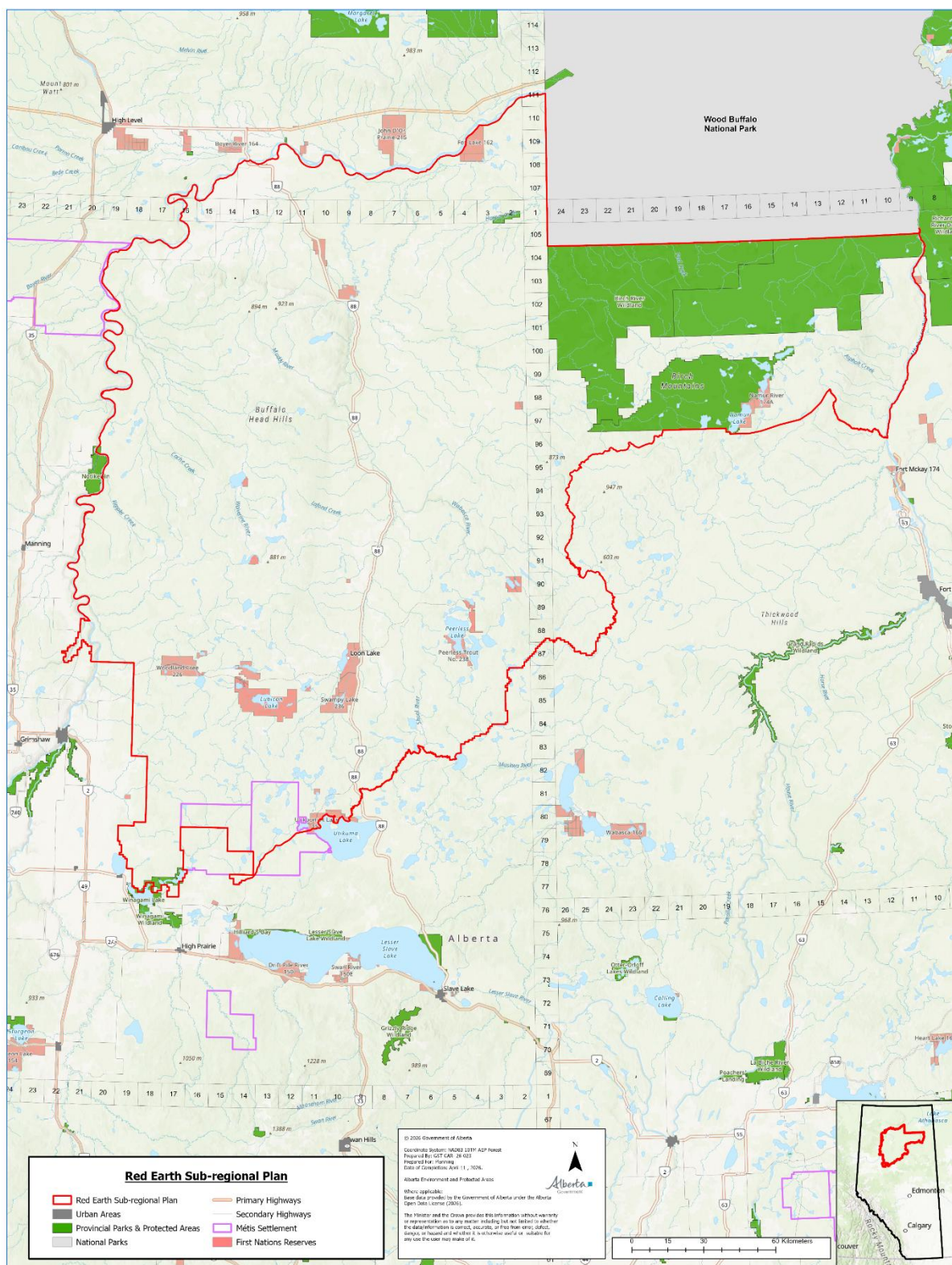
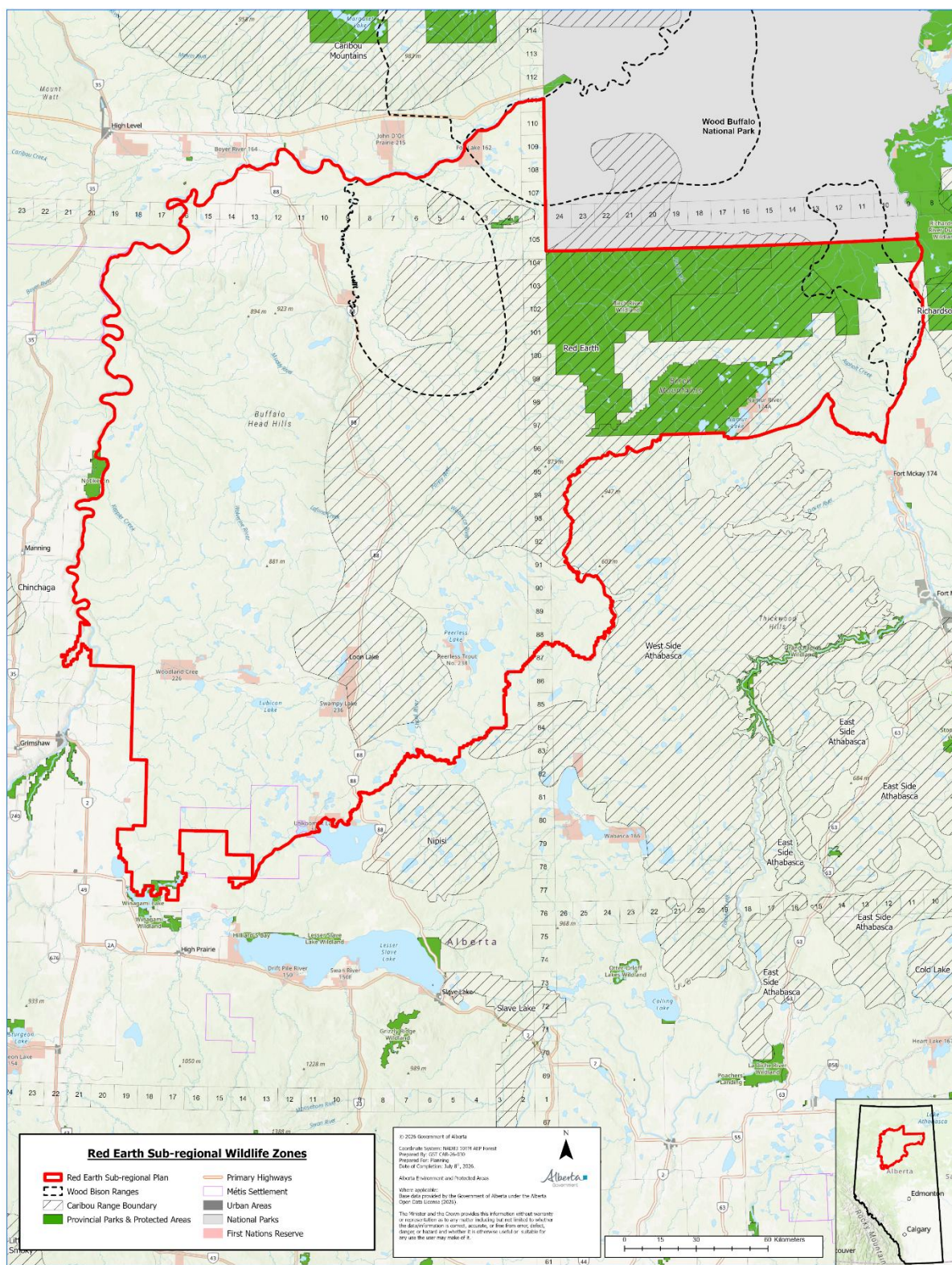


Figure 2. Caribou and bison ranges



Part 3 – Approaches

Scope

The Red Earth Sub-regional Plan will be enabled under the *Alberta Land Stewardship Act*, by adopting the non-binding policy direction by the Lower Athabasca Regional Plan (LARP) and by incorporating legally binding regulatory details as part of the LARP.

This sub-region overlaps provincial White area and private land. Although this sub-regional plan does not direct activities on private land, it must consider the long-term needs of these areas and how they may impact the desired vision and outcomes in the area. The policy objectives and requirements included in this plan only apply on Crown lands managed under the *Public Lands Act*. This sub-regional plan provides direction for managing land uses and cumulative effects on public lands.

The Red Earth Sub-regional Plan does not incorporate the Moose Lake Access management Plan or provide direction for managing land uses in this area. The Cabinet approved Access management plan will continue to provide direction to the management zones concerning Access management. The plan remains a standalone plan providing direction to the management zones around Namur Lake No.174A/B reserves near the eastern flank of Birch Mountains Wildland Provincial Park.

The Red Earth Sub-regional Plan will not direct activities on the Surface Mineable Oilsands Scheme Approvals identified in Figure 3. Although the activities on these lands will be considered for how they may impact the desired vision and outcomes in the sub-regional area, the LARP emphasizes the need for integration and coordination among industrial activities, particularly for the long-term management of oil sand mineable areas. Policy and regulatory direction and management of these activities are provided in the LARP and numerous existing and emerging policies and legislation.

The Red Earth sub-regional plan provides added direction in alignment with the LARP, and as new policy direction and associated regulatory requirements are established, they may be incorporated into the LARP or sub-regional plan where appropriate.

Following approval of the sub-regional plan through LARP, Integrated Resource Plans (IRPs) will be reviewed. Where guidance is superseded by approaches in the sub-regional plan or by other policy directions, the IRP's guidance will be rescinded. Any requirements that are necessary to be maintained will be approved and published as independent policy guidance and the LARP.

Development decisions in the Red Earth sub-regional area will have to be aligned with the LARP. The policy direction in this sub-regional plan is meant to work with, clarify and build upon existing legislation, regulations and policies. In the event of a conflict between this sub-regional plan and other existing policy, the direction in this plan takes priority. For further clarity, a sub-regional plan prevails to the extent of any conflict with the provision of an integrated resource plan.

Doubling oil and gas production

To deliver on Alberta’s goal to double oil and gas production, the approaches in this plan enable growth of the energy industry. The plan supports a reduction in the total amount of energy-related disturbance by requiring timely restoration of footprint that is no longer in use. A cumulative energy disturbance parameter will assess progress toward reducing effects on the landscape from energy development.

Zonation

The Red Earth sub-region is divided into two zones: the Go Zone (including Compartment A) and the Nature-first Zone. Zones help manage land uses to achieve outcomes for different areas (Figure 3). Each section of the plan includes policy objectives and requirements specific to a sector or value. Some requirements apply within a specific zone or compartment and others may apply across the sub-region. This zonation approach is not intended to limit Indigenous access to parts of the sub-region to practice traditional land uses. This approach allows for the exercise of Treaty rights and traditional use activities.

Wood bison and caribou ranges in the sub-region fall within the Nature-first Zone and Compartment A within the Go Zone — all current and future recovery strategies will be consistent with the land management direction within these zones. Appendix A provides a summary of restrictions in the Nature-first Zone to maintain management intent for conservation and ecosystem outcomes. Existing parks and protected areas are not part of the zones described in this plan.

Go Zone

The outcome for this zone is to support a working landscape while minimizing overall footprint. In this zone, existing policy and requirements continue to apply and a few new requirements are added to support greater integrated land management.

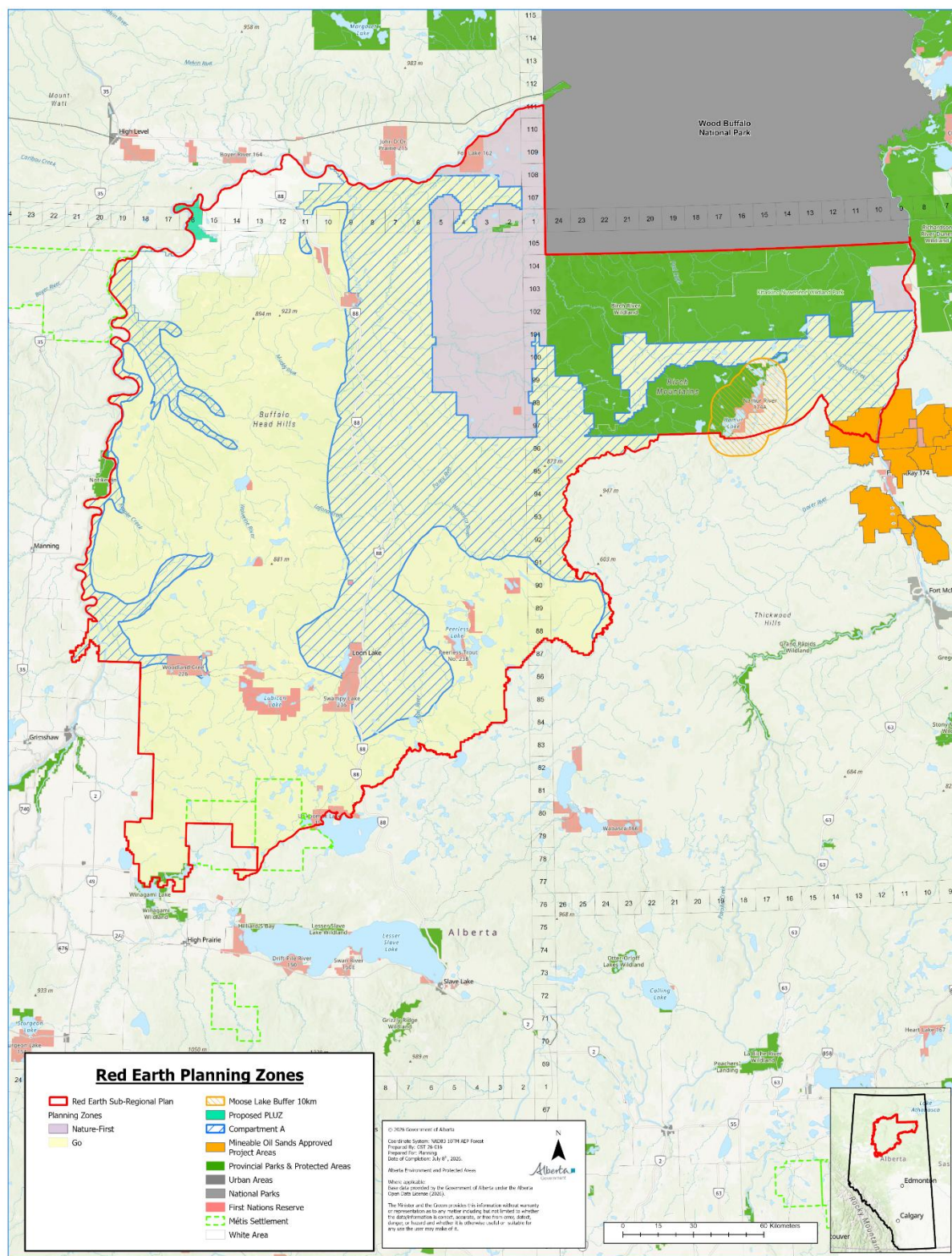
Compartment A — The outcome for this area is to achieve the greatest improvement in landscape intactness as soon as possible within habitat for species at risk and other sensitive habitats (caribou range, bison range and key wildlife biodiversity zones). Requirements are focused on early restoration, footprint management and ensuring development supports landscape intactness.

Nature-first Zone

The outcome for this zone is to prioritize conservation and ecosystem services with opportunities for traditional land uses, outdoor recreation, habitat restoration and habitat enhancement. This area avoids overlap with existing energy surface tenure agreements and forest management agreement areas and is intended to help achieve an intact landscape within caribou and wood bison ranges. Activities under formal disposition, excluding roads, resulting in new surface disturbance are not permitted and no new surface tenure will be issued (Appendix A. Permitted activities table). Specific requirements may apply to new industrial and commercial activities in support of these outcomes.

Since 1948, Alberta has been divided into two main areas: the Green area (forested portions) and the White area (settled portion). In the Green area, public lands are managed for timber production, watershed, fish and wildlife, recreation, energy development and other uses. Most of the White area land is privately owned with the remaining being public land. Public lands in the White area are managed for various uses including agriculture, recreation, soil and water conservation, and fish and wildlife habitat.

Figure 3. Planning zones (will be included as part of the regulatory details)



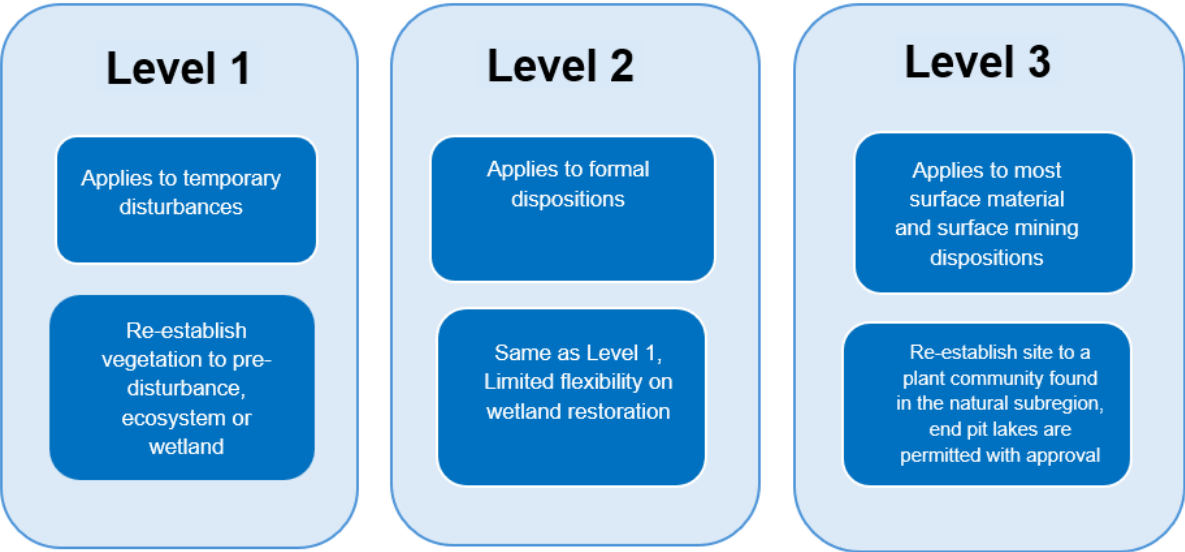
Restoration

Restoration of human footprint is central to achieving the plan’s outcomes. When land has been used and not restored, that land becomes limited in its future uses. Land cannot be created but restoration ensures that more of the land base is available to support choices for future land use.

This plan includes requirements intended to manage the pace, scale and outcome of restoration. Three levels of restoration requirements are referred to throughout the plan. However, for all levels, if caribou biophysical habitat existed before the site was disturbed, restoration treatments must make sure the site can produce caribou biophysical habitat in the future.

Restoration Level 1 is the most common requirement because it is the most common disturbance type. Levels 2 and 3 apply to disturbances that have a larger impact and require additional flexibility to achieve restoration outcomes and support landscape intactness.

See Restoration section for more details on Restoration levels.



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 supporting 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

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 communities and 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.

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.



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.

Preserving Indigenous ways of life and supporting traditional land uses

This plan describes 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 ensures that these communities have opportunities to access economic development. Recognition of the importance that these industries have on local Indigenous communities, as well as the infrastructure, jobs and training that accompanies them. This 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, the Government of Alberta can better understand what is needed for the practicing of traditional land uses, including the meaningful exercise of Treaty rights and traditional uses. 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-caused 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 support better planning and decision-making, including economic opportunities.

Policy objectives

1. **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 traditional values and perspectives.
 - 1.3. Support Indigenous peoples to practice traditional land uses, including the non-commercial harvest of plants and fungi for food and medicine on Crown land, in provincial parks, wildland provincial parks and provincial recreation areas.
 - 1.4. Enhance public awareness of traditional values.
 - 1.5. Include traditional 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, including economic development opportunities.



Access management

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

This section of the plan applies across the sub-region to roads approved as formal dispositions under the *Public Lands Act* for all sectors. The *Public Lands Act* is used to approve roads in the sub-region.

Formal disposition roads are long-term roads approved under the *Public Lands Act* (e.g. LOCs or DLOs). The Access management section does not apply to temporary roads approved under other enactments such as those authorized under the *Forests Act*.

Roads play an important role in enabling natural resource development and are primarily constructed in relation to the needs of individual operators. The purpose of this section is to provide clear guidance for the addition and removal of human footprint over time. The restoration section of the plan describes restoration policy objectives and requirements for the sub-region in more detail.

The sub-regional plan introduces two categories of roads (primary and transitional), assigns this classification to all formal disposition roads and provides specific guidance for each.

Primary roads are formal disposition roads that have potential to remain in use, or be newly constructed, and form the foundation of the road network in the Red Earth sub-region (Figure 4). The plan provides flexibility to add new roads, identifies primary road length thresholds and restoration ratios and timelines if the thresholds are reached.

Transitional roads are formal disposition roads that will remain available for access until they are no longer required to reach existing development infrastructure and facilities. When existing facilities are no longer required, the road must be restored to Level 2 at the same time. No new development will be allowed along transitional roads with the exception of expanding existing formal dispositions (example: well site).

This Access management approach provides flexibility to support economic opportunities, encourages restoration of economically unproductive roads while considering caribou habitat and environmentally sensitive areas. Together, the requirements for new roads and restoration of roads are important for mitigating negative impacts to natural and cultural values and ensuring there is space on the landscape for new economic opportunities over time.

Outcomes

- Enable long-term road access to areas of economic and recreational importance
- Increase landscape intactness in areas supporting caribou and caribou habitat recovery

Policy objectives and requirements

2. Establish a road network that provides access to resources while reducing footprint over time.

- 2.1. A primary road network is established in accordance with Figure 4 and identifies roads as primary or transitional.
- 2.2. A primary road network applies to roads approved as formal dispositions under the *Public Lands Act*.
- 2.3. The following road categories are not part of the primary road network and are not subject to road thresholds and restoration ratios:
 - 2.3.1. Roads within an approved in situ project area.
 - 2.3.2. Roads approved through an Annual Operating Plan under the *Forests Act*.
 - 2.3.3. Temporary roads approved as a Regulatory Temporary Field Authorization (RTF) or a Temporary Field Authorization (TFA) for the purpose of temporary access.

3. Applications for primary and transitional roads.¹

- 3.1. A proposed primary road can be a Class II to Class VI road. Class I roads are not permitted, except when needed for a provincial highway.
- 3.2. A proposed primary road must not result in the primary road network exceeding the road length thresholds established for each zone in Table 1 Primary Road Management Thresholds.
- 3.3. A proposed primary road must start from a primary road.
- 3.4. A proposed primary road may be an existing transitional road.

4. Transitional road usage.

- 4.1. Transitional roads cannot be renewed unless there is an existing/active disposition that requires the road to be maintained. If a road is required for a longer timeframe, the road may be transitioned to a primary road if the requirements for new primary roads are met.
- 4.2. A transitional road can be used to access existing dispositions. New appended developments are not permitted on transitional roads.
- 4.3. In the Go Zone, an existing transitional road may be used to access a new disposition if it overlaps the footprint of an existing disposition with no change to the size or the location of the existing footprint. Expansion is not permitted.

5. Reclaiming economically unproductive access.¹

- 5.1. Road dispositions can be renewed only if there is an existing/active disposition that requires the road to be maintained.
- 5.2. At the end of life of a disposition for an activity, its associated access must be removed.

6. Create opportunities for new primary roads through restoration of existing formal dispositions or other footprint.²

¹ This section establishes requirements that will be directly applied in decision-making, is intended to be implemented as a binding rule, and used by decision-makers to approve or deny activities related to road dispositions.

² This section and sub sections establishes requirements that will be directly applied in decision-making, is intended to be implemented as a binding rule, and used by decision-makers to approve based on Table 1 and Table 2.

- 6.1. If a proposed primary road exceeds the road length thresholds in Table 1, the proponent must restore formal dispositions or other footprint (any activity under *Public Lands Act* or other historical footprint) in alignment with section 26, at a ratio identified in Table 2.
 - 6.1.1. Restoration will be prioritized according to the following hierarchy:
 - 6.1.1.1. Formal dispositions within caribou range; then
 - 6.1.1.2. Formal dispositions within all zones; then
 - 6.1.1.3. If the proponent can prove 6.1.1.1 and 6.1.1.2 cannot be met, then restoration of legacy seismic lines, as directed by the Caribou Habitat Recovery Program and in alignment with CHRP targets and objectives, may be considered.
 - 6.1.1.4. Other historical footprint within all zones.
 - 6.1.2. Restoration ratios will be followed if inactive footprint is available for restoration. Restoration ratios can be achieved by removing formal dispositions or legacy seismic lines or other historical footprint from all zones and Compartment A.
- 6.2. As part of the application for a proposed road or project associated with section 36.2, the applicant must:
 - 6.2.1. Identify the formal disposition(s) to be restored,
 - 6.2.2. Identify the restoration area, and
 - 6.2.3. Provide consent from the disposition holder(s) for each of the formal dispositions identified for restoration (if applicable).
- 6.3. The proposed restoration must not strand other active dispositions. If the road being restored is used to access other inactive dispositions, those other dispositions must also be restored.
- 6.4. The applicant shall restore the formal disposition(s), up to and including the following steps in restoration:
 - 6.4.1. Dismantling surface infrastructure, and
 - 6.4.2. Decontamination of the surface and subsurface, and
 - 6.4.3. Completing all remaining activities to meet the applicable restoration level.
- 6.5. The applicant must complete restoration activities, committed to in section 6.2, within 10 years of the issuance of the formal disposition.

Restoration can occur in any zone. However, the applicable ratio (Table 2) is based on the zone of the new primary road.

7. Focus new development around primary roads (appended development).

- 7.1. New developments approved through formal dispositions must be approximately 100 metres from a primary road and an appended development road must not be longer than 200 metres.
- 7.2. An Appended Development Road must be between Class II to Class VI and must be equal to or lower than the class of the primary road it starts from.
- 7.3. Dispositions for transmission lines, pipelines or future primary roads are exempt from this section.
- 7.4. Appended development rules do not apply within an in-situ project area.

An **appended development road** is a road built exclusively to provide access from a primary road to an appended development.

8. Minimize the impact of proposed roads in caribou range to support caribou recovery.³

- 8.1. Proposed formal disposition roads and future highways should be located outside caribou range if a suitable alternate route exists.
- 8.2. A proposed primary road or provincial highway should avoid bisecting a caribou range.
- 8.3. If 8.1 and 8.2 cannot be met, a proposed road within caribou range may be a Class III to Class VI road.

Table 1. Primary Road Management Thresholds (km)²

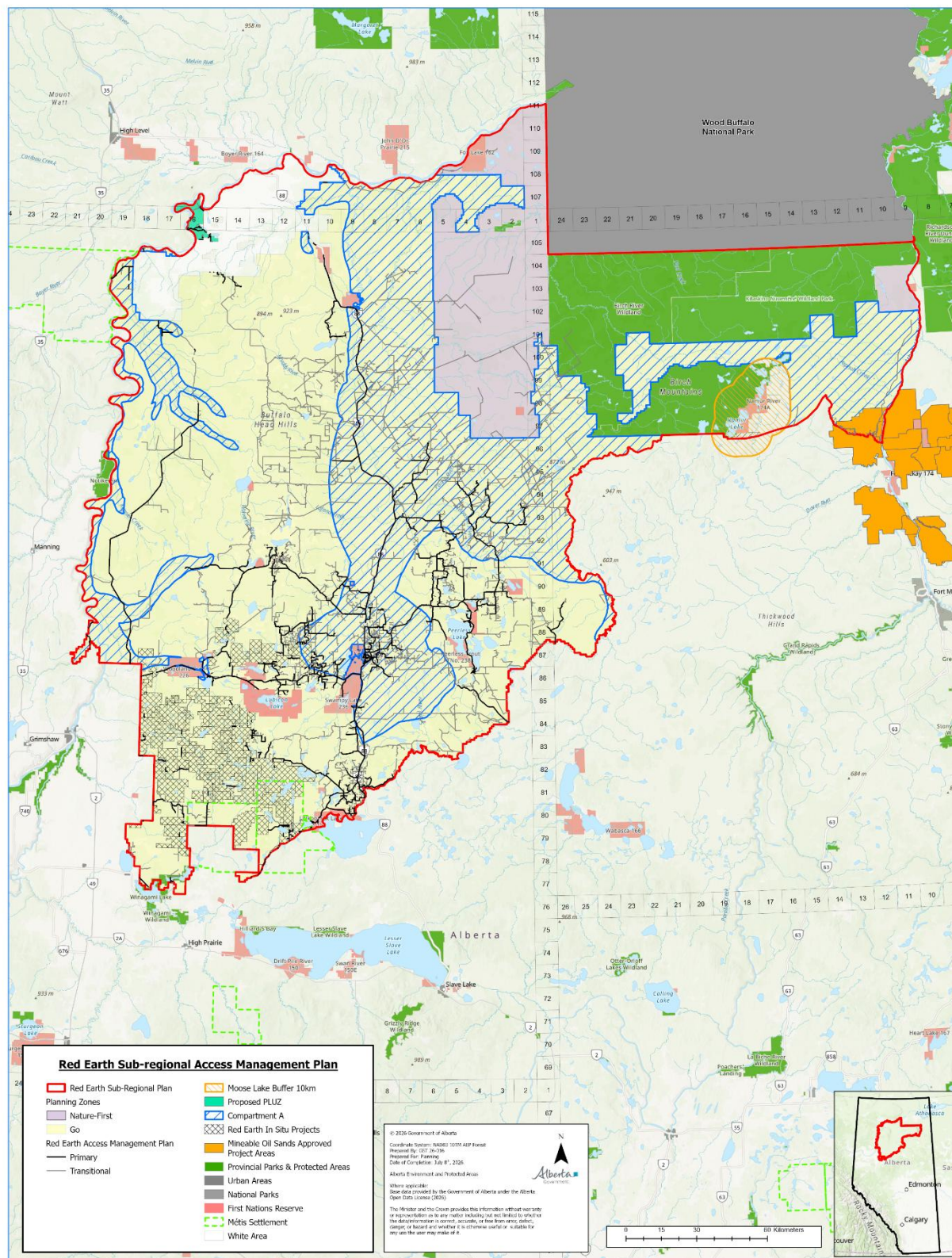
Zone	Primary road baseline (km)	Primary road threshold (km)
Compartment A	829	912
Nature-first	0	0

Table 2. Restoration Ratios for new primary roads that exceed the primary road management thresholds in Table 1.

Zone	Area of new footprint (km ²): Area restored (km ²)
Compartment A	1:3
Nature-first	1:4

³ This section establishes requirements that will be directly applied in decision-making, is intended to be implemented as a binding rule, and used by decision-makers to deny or approve roads pursuant to *Public Lands Act*.

Figure 4. Access management Plan



Energy

Provide certainty and clear policy direction for petroleum and natural gas while minimizing footprint and landscape fragmentation.

The energy approach for the Red Earth sub-region was designed to deliver on Alberta's intention to double oil and gas production while ensuring that energy development is carried out in a way that supports environmental objectives. This plan enables growth of future in situ projects and creates regulatory flexibility to support ongoing energy-related development, including oil sands, petroleum and natural gas tenure (PNG).

Oil and gas activity in Red Earth is largely focused on conventional oil production, contributing annually to approximately 6% of Alberta's total conventional oil production. PNG tenure covers 9.7% of the sub-region, but natural gas production makes up only 0.5% of Alberta's total natural gas production. In recent years, oil and gas production from this sub-region has generally been trending downwards, indicating a lack of economic incentive to sustain previous levels of drilling.

Existing oil sands tenure encompasses approximately a quarter (24.7%) of the sub-region. Crude oil and bitumen produced in this sub-region make up 6.79% of total provincial production. Production is expected to remain steady, indicating further oil and bitumen potential in this sub-region.

Assessing and managing the cumulative energy disturbance in this sub-region is important. Increasing oil and gas production while also creating landscape conditions that can support caribou recovery and Indigenous traditional land uses requires achieving a balance between adding new footprint while restoring the old.

This plan provides flexibility and certainty for ongoing energy development within the Go Zone and in in-situ project areas. The parameters, metrics, and requirements in this section that are unique to this region will be evaluated as part of the plan review, ensuring they are supporting the achievement of overall outcomes. These requirements do not apply to the Surface Mineable Oilsands Scheme Approvals depicted in Figure 3.

Outcomes

- Increase economic opportunities and investor certainty
- Manage footprint and support achieving conservation goals

Policy objectives and requirements

Energy operators will take actions to reduce the cumulative effects from energy development in the Nature-first Zone and Compartment A by managing new disturbances.

9. Reduce cumulative effects from energy development in key planning areas by managing new surface disturbance.

- 9.1. Surface disturbance for activities within the Nature-first Zone (Figure 3) will only be permitted for project areas associated with Crown mineral agreements issued prior to this plan coming into force. Exemptions

include:⁴

- 9.1.1. A road to provide access to an approved project area.
- 9.1.2. Activities directly required for operations of a project area, related to the existing tenure agreements noted above in 9.1, as determined by the regulator.
- 9.2. In Compartment A, new footprint or expansion of existing footprint may be permitted if the operator can demonstrate an overall reduction in disturbance, Exemptions include:
 - 9.2.1. An Oilsands Evaluation Well for the purpose of delineating new project areas.
 - 9.2.2. Re-use of active footprint.
 - 9.2.3. Re-use of inactive footprint if it is not identified for restoration under the targets in Table 3.
- 9.3. For development connected to an in situ project, an operator must locate all footprint within an approved in situ project area except for: water wells, disposal wells, oilsands evaluation wells, monitoring wells required by the Alberta Energy Regulator, carbon sequestration facilities, geophysical and oil sands exploration, transmission lines and belowground pipelines, segments of above-ground pipelines and any associated facilities and infrastructure required to connect an in situ project area to a central processing facility in another in situ project area.
- 9.4. All energy-related activities occurring outside an in-situ project area must comply with the requirements for surface disturbance as described in this section and in the Access management section.

10. Reduce cumulative effects and provide opportunities for new developments over time by reducing inactive footprint.

As part of the energy industry's ongoing environmentally responsible development approach, companies are expected to reduce the amount of land associated with suspended, abandoned wells and other inactive well pads in the sub-region. The Alberta Energy Regulator (the Regulator) and the Government of Alberta (Alberta) will continue to work with the industry to develop and support programs that encourage the timely closure and restoration of inactive infrastructure.

To support the achievement of landscape outcomes, ongoing development will be connected to the ongoing demonstration of responsible and timely restoration.

- 10.1. Disposition holders will restore inactive well pads according to the targets described in Table 3.
- 10.2. The Regulator shall publish data by June 30 of each year for each planning zone (Figure 3):
 - 10.2.1. A list of all formal dispositions that contain an inactive well pad and associated licensee(s).
 - 10.2.2. The area of each formal disposition that contains an inactive well pad.
 - 10.2.3. For each formal disposition that contains an inactive well pad, the restoration activities completed in the previous calendar year.

This approach works with the Access management section to ensure developments that are no longer required come off the landscape. This will maintain space for new oil and gas developments and other energy and minerals commodities over time.

11. Track and report on restoration targets to ensure timely progress towards reduction of inactive

⁴ These subsections establish requirements that will be directly applied in decision-making, is intended to be implemented as a binding rule, and used by decision-makers to deny or approve surface disturbance related to energy tenure.

footprint.

11.1. Disposition holders will report the steps in progression completed on inactive well pads to achieve Level 2 restoration, as defined in the plan, in the previous calendar year, no later than March 31 to the Regulator.

The steps in progression to achieve Level 2 restoration include:

1. *Dismantling surface infrastructure*
2. *Decontamination of the surface and subsurface*
3. *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*
4. *Application for reclamation certificate*
5. *Issuance of reclamation certificate*

11.2. Alberta will annually assess the progress made towards restoration and may identify to the Regulator formal dispositions with inactive well pads for priority restoration or those requiring a closure plan by the formal disposition holder or associated licensee under the Closure Nomination Program.

11.3. Alberta will evaluate the data described in 10.2 at the set time intervals to determine if the targets in Table 3 are being achieved and publish the results.

11.4. Any disposition holder or associated licensee that exceeds their proportional share of restoration as described in Table 3, for a given decade, will be eligible for a reduction in surface rent identified in 35.3 — See Legacy Seismic Lines.

11.5. If the target for any time period in any zone has not been met,

11.5.1. The Regulator will assess all restoration work completed on formal dispositions that contain an inactive well pad to ensure all disposition holders have completed restoration treatments at minimum equal to their proportionate share required to meet the targets in Table 3.

11.5.2. If the regulator determines that a disposition holder or associated licensee not meeting the outcomes of 11.5.1, the regulator may require the operator to restore all held formal dispositions that contain an inactive well pad within the zone where the target has not been met within 13 years, and no longer than 18 years in cases where an extension is determined necessary by the Regulator.⁵

Based on AER data, there are currently 1,209 inactive, abandoned well pads in the Go Zone.

11.5.3. Within the Nature-first Zone or Compartment A, disposition holders not in compliance with 11.5.1, the Regulator shall not amend existing or issue new formal dispositions within the zone where the target has not been met until restoration activities have been conducted to the satisfaction of the Minister. This restriction applies only to the area(s) where the target has not been met in Table 3 and does not affect dispositions in other areas.⁵

⁵ This subsection establishes requirements that will be directly applied in decision-making, is intended to be implemented as a binding rule, and use by decision-makers to deny or approve surface disturbance related to energy tenure.

⁶ Table 3 establishes requirements that will be directly applied in decision-making, is intended to be implemented as a binding rule, and used by decision-makers to deny or approve surface disturbance related to energy tenure.

Table 3. Targets for area (ha) of inactive well pads to be restored.⁶

Zone	Decade				
	Baseline	1	2	3	4
Go Compartment A	3,464	688	524	848	718
	1212	688	524	0	0
Nature-first	5	5	0	0	0

Targets to be based on costs and alignment with the Liability Management Framework (using 2023 inventory of inactive well sites). The goal is to achieve restoration of 80 per cent of inactive well pads in the sub-region by the end of the fourth decade, based on the baseline established in each zone.

An inactive well pad is defined as land that contains one or more inactive wells that have been inactive for five years or more and no active wells.

⁶ Table 3 establishes requirements that will be directly applied in decision-making, is intended to be implemented as a binding rule, and used by decision-makers to deny or approve surface disturbance related to energy tenure.

Linear features

Reduce linear feature width across the landscape

Linear features such as pipelines, transmission lines and seismic lines are necessary developments that support activity in the energy industry and other sectors. Seismic lines let companies seek to understand the subsurface geology, while pipelines and transmission lines 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.

The key objective of this section is to enhance restoration efforts promoting the regeneration of trees. These measures are designed to support caribou recovery by limiting access for alternative predator and prey species.

Outcomes

- Maintain economic opportunities and investor certainty
- Reduce landscape disturbance associated with unproductive footprint
- Promote caribou habitat and landscape intactness for healthy caribou herds

Policy objectives and requirements

12. Maintain safe pipeline operations for belowground pipelines while restoring vegetation on dispositions.

- 12.1. For a new pipeline disposition, operators must meet Restoration Level 1 requirements within five years of completing construction within the sub-regional planning area 7.
- 12.2. For an active pipeline disposition, operators must restore their pipeline disposition to Restoration Level 1 within 20 years of the sub-regional plan coming into force.⁷
- 12.3. Despite the requirements in 12.1 and 12.2, a vegetation control corridor not exceeding four metres in width may be maintained by the operator as part of the disposition where there is an active pipeline.
- 12.4. Where a pipeline disposition is for an abandoned pipeline, Restoration Level 1 is required for the entire disposition to apply for a reclamation certificate.
- 12.5. Vegetation control is permitted within four metres around above-ground installations and infrastructure approved under a pipeline-related disposition including, but not limited to, valve sites, remote metering stations (i.e., fly-in only), cathodic protection and thermal electric generators.
- 12.6. Vegetation control is permitted on an area of up to 1,300 square metres for helicopter pads.
- 12.7. Temporary clearings are permitted for maintenance or emergency response, integrity dig sites and monitoring sites and must be restored. These clearings must be temporary and subsequently restored to Restoration Level 1 within five years from the maintenance activity or emergency ending.
- 12.8. Human access must be effectively limited on vegetation control corridors intersecting primary roads

⁷ This subsection establishes a requirement intended to be implemented as a binding rule that would be implemented through the Regulator and would apply to pipeline disposition holders.

using strategies as determined by the Government of Alberta and the proponent.

13. Requirements for multiple pipeline corridors

- 13.1. In addition to the requirements in 12.3, where two or more adjacent pipeline dispositions occur in Compartment A, disposition holders must coordinate to restore one kilometer of the vegetation control corridor every 10-kilometer length of pipeline disposition areas.⁸
- 13.2. Operators within a multi-pipeline corridor must submit a coordinated restoration program within five years of the sub-regional plan coming into force. The program must outline how the operators will:
 - 13.2.1. Complete 50% of the required restoration activities within the first 10 years of the program; and
 - 13.2.2. Complete the remaining 50% within 15 years of the program being submitted.

Multipipeline corridors can create areas of cleared land that travel a very long distance across the landscape. When these corridors occur in caribou range, they create a physical barrier that caribou will not cross. By creating a forested crossing area, caribou may move more freely across the sub-region.

14. Restore portions of the dispositions of electricity transmission lines.

- 14.1. Revegetation of transmission line rights of way should maintain a level of vegetative cover indicative of the pre-disturbance ecosite.
 - 14.1.1. On new and existing lines, vegetation cover will be maintained to a minimum of two metres high across the right of way, where possible and safe to do so.
 - 14.1.2. A vegetation control corridor of four metres is permitted.
- 14.2. New transmission line dispositions must be restored to Restoration Level 1 within five years of the date the energization certificate is issued.
- 14.3. Human access must be effectively limited on vegetation control corridors intersecting roads using strategies as determined by the Government of Alberta and the proponent.

15. Minimize disturbance from seismic exploration.

- 15.1. Receiver lines must not exceed 1.75 metres in width and must employ tree avoidance techniques.
- 15.2. Source lines must not exceed 2.75 metres in width, must employ tree avoidance techniques, and must meander to limit line of sight to less than 100 metres. Turn-around clearings at the end of source lines are permitted.
- 15.3. Seismic access lines must not exceed 3 metres at any location along the line.
- 15.4. When operating within a riparian area, a receiver line, source line, or seismic access line, must not exceed 1.75 metres in width.
- 15.5. Helipads must be constructed in natural open areas or existing clearings, where they exist. Where helipads must be prepared, the area of cleared vegetation will not exceed 1,300 square metres.
- 15.6. Shot holes drop zones used in heli-portable programs must not exceed 16 square metres.

⁸ The subsection establishes a requirement intended to be implemented as a binding rule that will be implemented through the Regulator and will apply to adjacent pipeline disposition holders.

15.7. The holder of an approved geophysical exploration program must establish doglegs at all intersections of a source, receiver or access line with linear features greater than 3.5 metres in width.

15.7.1. Access control must extend for 100 metres from the point of intersection and effectively deter human use, including off-highway vehicles.

The federal caribou recovery strategy measures human-caused disturbance using Landsat imagery at the scale of 1:50,000.

Alberta's strategy of applying a maximum width of four metres is intended to create crown closure, where the canopy of adjacent trees touch and you can no longer see the linear features from satellite imagery.

Forestry

Provide certainty for forest harvesting while considering other landscape values

Alberta's forests and the forest 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 the Alberta Timber Harvest Planning and Operating Ground Rules.

The plan outlines an approach to consolidating harvest areas in caribou range through an aggregated harvesting approach that concentrates forest activities in defined areas over time. By reducing the dispersion of harvesting across the landscape, this approach helps maintain larger, contiguous tracts of intact habitat and supports improved landscape conditions for caribou. To support a sustainable and predictable forestry sector while promoting landscape intactness, the sub-regional plan provides guidance on the extent and rate of harvesting.

Aggregating harvesting in caribou range is an approach that has the potential to:

- Provide certainty for forest management planning and harvest operators in caribou ranges.
- Support efficient access through aggregation, reducing the need for temporary roads and helping maintain more continuous habitat across the landscape.
- Reduce construction and maintenance costs for the forest sector because fewer roads are needed to access harvesting areas.

The effectiveness of this approach depends on the timing and location of the aggregated harvest pattern. Timber disposition holders will monitor and evaluate the harvest and wildfire disturbance footprint, road development, and changes in habitat conditions. If monitoring indicates that harvesting patterns are affecting multi-species habitat objectives, or elevating wildfire concerns, adjustments to harvest design, timing or access development will be required.

As the sub-regional plan intends to show how management actions improve the landscape over the next 20 to 30 years, a harvest timing series for the first 30 years is displayed in Figure 5.

The sub-region overlaps nine forest management units (FMU) that have Annual Allowable Cuts. FMUs A16, F16, F23, F26, P21, S10, S11, S14, S19, and S22 overlap with caribou ranges.

Outcomes

- Maintain economic opportunities and investor certainty
- Practice aggregated harvest area approach to help restore caribou habitat intactness and for healthy caribou herds

Policy objectives and requirements

16. Maintain integrity of critical habitat and sensitive areas.

16.1. New long-term tenure will not be issued within Nature-first Zones or in caribou range.

17. Provide guidance for developing aggregated harvest approaches

17.1. Requirements in this section only apply within caribou range.

17.2. Forest management plans without an approved Harvest Timing Series (HTS) must be updated within 3 years of the coming into force of this Plan.⁹

17.2.1. During the transition period, harvesting will occur following the current approved FMP with consideration of minimizing linear disturbance.

17.2.2. Harvest deferrals may be considered until HTS development is complete if caribou outcomes cannot be achieved.

17.3. A Harvest Timing Series (HTS) will incorporate:

17.3.1. An aggregated harvesting approach in 10-year increments for a minimum of 10 decades.

17.3.2. Landscape fire assessments to manage wildfire risk.

17.3.3. Strategies consistent with the objectives of the plan.

Harvest Timing Series are assessed collaboratively by Alberta's Forestry and Fish and Wildlife staff to ensure that aggregated harvest is sustainable for forest companies and will support increased habitat intactness for woodland caribou.

18. Implementation of existing harvest timing series.

18.1. Requirements in this section only apply within caribou range.

18.2. Forest harvesting in caribou ranges will follow existing or previously approved Harvest Timing Series (HTS) as shown in Figure 5.

18.3. Harvesting can only occur during the decade identified in the HTS.

18.3.1. There will be a transition period of one year overlap between the current HTS closing date and the subsequent HTS opening date.

18.4. When operationalizing or amending the approved HTS, the following must be demonstrated, in alignment with the outcomes of the approved HTS:

18.4.1. Maintain undisturbed habitat and caribou biophysical habitat within 10 years.

18.4.2. Maintain or increase caribou biophysical habitat and undisturbed habitat in each of the following decades for the duration of the HTS.

18.4.3. Maintain landscape connectivity of undisturbed and biophysical habitat throughout the range.

19. Provide guidance for salvage harvesting.

19.1. Requirements in this section only apply within caribou range.

⁹ This subsection establishes a requirement intended to be implemented as a binding rule to allow for transitional provisions for HTS development by the responsible ministries and industry.

- 19.2. All salvage operations must be accompanied by a salvage harvesting plan that:
- 19.2.1. Includes burn severity and percent mortality assessment maps of all burned or damaged stands planned for harvest,
 - 19.2.2. Prioritizes severely damaged areas over less severely damaged areas, and
 - 19.2.3. Attempts to avoid low severity areas where less than 25% of the stand is burned.
- 19.3. Salvage harvesting is only permitted in:
- 19.3.1. The open and the next open HTS.
 - 19.3.2. In any other HTS where:
 - 19.3.2.1. The area proposed to be harvested does not reduce the area of undisturbed caribou habitat.
- 19.4. Salvage harvest must not exceed the cumulative annual maximum of 4,336 hectares in the Red Earth caribou range.
- 19.4.1. If an assessment is triggered by requirements in the Plan Review section, additional salvage harvesting may occur.

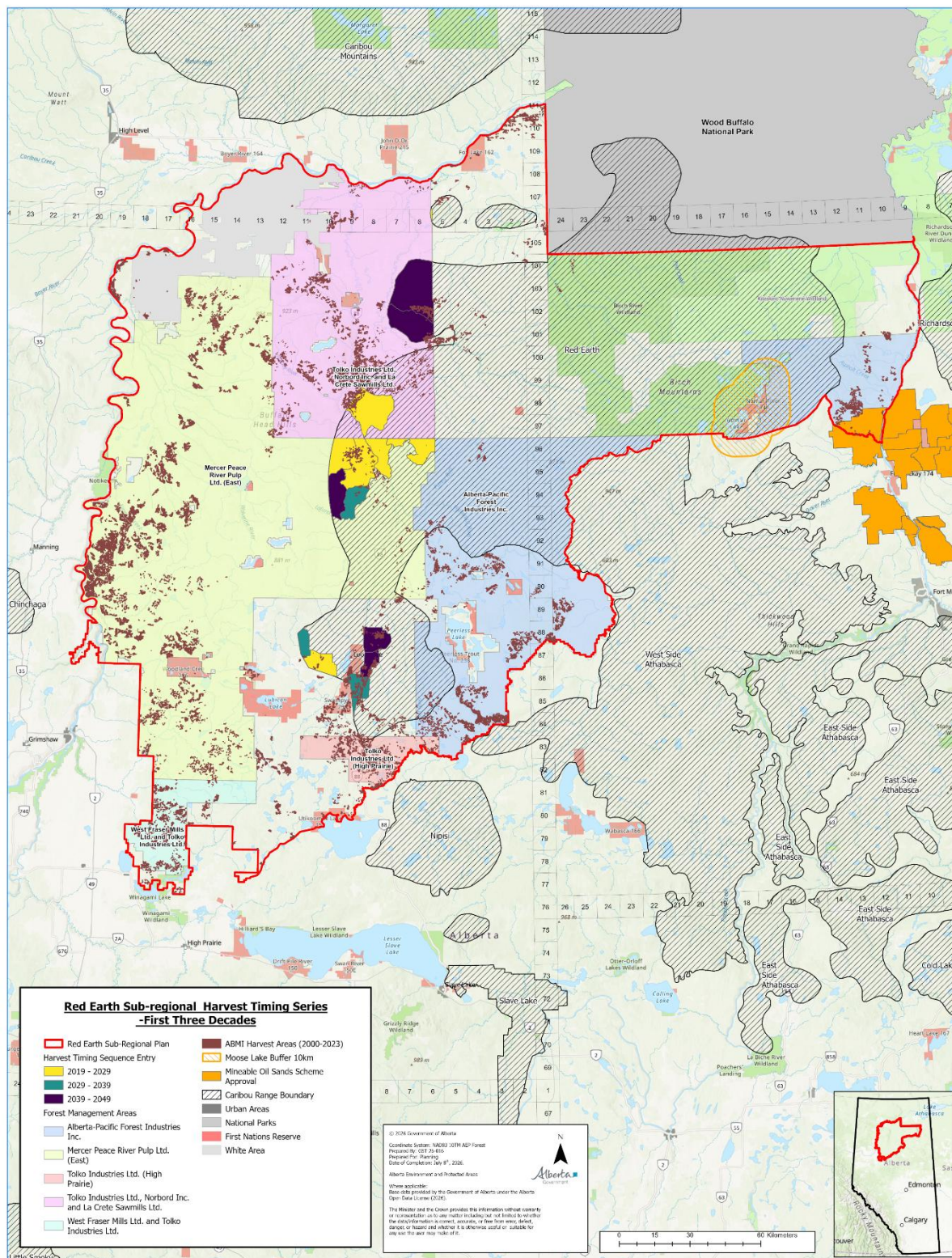
20. Restoration of temporary footprint.

- 20.1. Formal disposition roads associated with forestry activities must align with the Access management requirements outlined in this plan.
- 20.2. Temporary footprint outside a harvest area, authorized through an Annual Operating Plan (AOP), shall be restored to Restoration Level 1. This includes roads that follow pre-existing disturbance not currently under disposition (i.e. seismic).
- 20.2.1. Inside caribou range, all activities to achieve Restoration Level 1 must be complete within three years from the closure date of an HTS.
 - 20.2.2. Outside caribou range, all activities to achieve Restoration Level 1 must be complete within three years of the construction date.
- 20.3. In addition to existing annual reforestation and spatial data directive reporting requirements under the Timber Management Regulation, the following reporting on restoration of temporary footprint is required.
- 20.3.1. All reporting will be submitted as a report or spatial data, in a format suitable to a regulatory body.
 - 20.3.2. Within caribou range:
 - 20.3.2.1. An annual report of restoration activities completed within an HTS, submitted no later than June 1 of the following timber year.
 - 20.3.2.2. Upon closure of an HTS, a summary of all restoration activities conducted within that decade, submitted no later than June 1 of the following timber year
 - 20.3.2.3. A summary demonstrating Restoration Level 1 no earlier than five years and no later than eight years from closure of an HTS.
 - 20.3.3. Outside of caribou range:
 - 20.3.3.1. An annual report of restoration activities completed, no later than June 1 of the following timber year.
 - 20.3.3.2. A summary demonstrating successful restoration to Restoration Level 1 criteria no earlier than five years and no later than eight years from the expiration date of the authorization for the temporary footprint.

21. Restoration of seismic footprint.

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

Figure 5. Existing Harvest Timing Series (First three decades)



Mitigate wildfire risks

Reduce the impact of wildfire by strengthening Alberta's ability to protect communities, vital infrastructure, and landscape values

Alberta remains committed, in alignment with the Alberta Wildfire Mitigation Strategy, to strengthening understanding of wildfire risk to prioritize prevention and mitigation where it is most effective in reducing impacts on communities, critical infrastructure and key landscape values.

Outcomes

- Align with provincial wildfire management priorities
- Support implementation of the Alberta Wildfire Mitigation Strategy

Policy objectives and requirements

22. Reduce hazardous fuels on the landscape and around communities at the highest risk

- 22.1. Apply Landscape Fire Assessment outcomes within sub-regional planning to identify community and landscape priority areas, guiding hazardous fuels reduction and informing forest management planning, spatial harvest sequencing and operational priorities.
- 22.2. Areas with hazardous fuels not addressed through forest harvesting will be identified and treated using other methods, such as thinning, mulching, or prescribed fire, through programs outside the forest management planning process

23. Salvage and restoration practices supporting wildfire risk reduction.

- 23.1. Salvage operations within community and landscape priority areas will meet sub-regional planning salvage requirements and be assessed for their long-term wildfire risk implications. Where salvage has the potential to increase hazardous fuels, the operational plan will include alternative silviculture approaches and debris management practices to maintain low hazard conditions.

24. Re-evaluate wildfire risk on the changing landscape.

- 24.1. Reassess wildfire risk in conjunction with Forest Management Planning, incorporating Landscape Fire Assessment data and other emerging wildfire risk data or technologies.
- 24.2. Adjust mitigation priorities based on these updated assessments.

Restoration

Restore unproductive footprint

Recovering areas impacted by human land uses is important to sustaining natural and cultural values and economic opportunities over time.

The purpose of this section is to provide guidance to operators regarding how best to restore disturbance, taking into consideration Alberta's unique landscape. This guidance also ensures that the restoration requirements are reflective of the impact of that particular activity and ultimately result in trees replacing trees.

Consistent restoration requirements that prioritize recovery of caribou habitat also support achievement of landscape intactness, economic opportunities such as forest harvesting across northern Alberta, biodiversity conservation, and self-sustaining fish and wildlife populations.

Outcomes

- Support ongoing resource development opportunities enabled by a restored landscape
- Promote caribou habitat intactness for healthy caribou herds

Restoring Caribou Habitat

The recovery goal for boreal caribou is to achieve self-sustaining local populations in all boreal caribou ranges throughout their current distribution in Alberta, and in other parts of Canada. This includes identifying and protecting the critical habitat caribou need to survive.

Boreal caribou require large areas comprised of continuous tracts of undisturbed habitat. Because one of the main threats to boreal caribou is anthropogenic (human-caused) habitat alteration, ongoing loss, degradation, or fragmentation of caribou biophysical habitat hinders caribou recovery efforts in the province.

Restoration requirements in this plan describe how disturbances on the landscape will be restored to preserve or increase the amount of caribou habitat in the sub-region. Additional information on caribou habitat can be found in Appendix C.

Policy objectives and requirements

25. Restoration Levels

25.1. "Level 1 restoration" means to meet the following:

25.1.1. within an upland ecosite:

- restore the site on the trajectory to 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, restore the site on the trajectory to an upland ecosite capable of producing caribou biophysical habitat.

25.1.2. within a wetland:

- restore the site on the trajectory to 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, restore the site on the trajectory to a wetland class in the natural subregion capable of producing caribou biophysical habitat.

25.2. “Level 2 restoration” means to meet the following:

25.2.1. within an upland ecosite:

- restore the site on the trajectory to 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, restore the site on the trajectory to an upland ecosite capable of producing caribou biophysical habitat.

25.2.2 within a wetland:

- restore the site on the trajectory to a plant community representative of the pre-disturbance wetland class or to an ecosite found in the natural sub-region with an approved change in land use; and
- re-establish trees if trees were on the site pre-disturbance;
- if the wetland is within a caribou range and if the pre-disturbance wetland was capable of producing caribou biophysical habitat, restore the site on the trajectory to a wetland class found in the natural sub-region that is capable of producing caribou biophysical habitat; or an upland ecosite capable of producing caribou biophysical habitat, with an approved change in land use..

25.3. “Level 3 restoration” means to meet the following:

25.3.1. Within an upland ecosite:

- restore the site on the trajectory to an upland plant community found in the natural sub-region or to a wetland class found in the natural sub-region with an approved change in land use;
- re-establish trees if trees were on the site pre-disturbance,
- end-pit lakes are permitted with approval; and
- If the upland ecosite is within a caribou range and if the pre-disturbance ecosite was capable of producing caribou biophysical habitat, restore the site on the trajectory to an upland ecosite capable of producing caribou biophysical habitat.

25.3.2. within a wetland:

- restore the site on a trajectory to a plant community found in the natural sub-region with an approved change in land use,
- re-establish trees if trees were on the site pre-disturbance,
- end-pit lakes are permitted with approval; and

- if the wetland is within a caribou range and if the pre-disturbance wetland was capable of producing caribou biophysical habitat, restore the site on the trajectory to a wetland class found in the natural sub-region, that is capable of producing caribou biophysical habitat, or an upland ecosite capable of producing caribou biophysical habitat, with an approved change in land use.

26. Provide certainty of restoration outcomes.¹⁰

26.1. Restoration Level 1 is required for:

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

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

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

26.1.4. Pipeline dispositions (excluding vegetation control corridor).

26.1.5. Transmission line dispositions (excluding vegetation control corridor).

26.2. Restoration Level 2 is required to obtain a reclamation certificate for formal dispositions excepting for surface materials extraction, and rock-hosted metallic and industrial minerals extraction.

26.3. Restoration Level 3 is required to obtain a reclamation certificate for surface materials extraction, and rock-hosted metallic and industrial minerals extraction.

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

26.5. 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.

26.6. The restoration requirements in this sub-regional plan do not apply to decisions for reclamation certificates if the operator has completed the reclamation activities and the site assessment for the application prior to the coming into force date of this plan and the operator submits the reclamation certification application no later than one year of the coming into force of this sub-regional plan.

26.7. The restoration requirements in this sub-regional plan do not apply to decisions for reclamation certificates if the operator has completed the reclamation activities and the site assessment for the application prior to the Ministry of Environment and Protected Areas publication of new site assessment guidelines and the operator submits the reclamation certification application no later than one year of the publication of new site assessment guidelines.

¹⁰ The date this section comes into force may be different than the plan. Transitional provisions will be established to support reclamation certification applications that have been initiated or in process or application review.

Table 44. Examples of restoration levels by activity type

Restoration level	Intensity of disturbance	Examples of activities
Level 1	Low	• Temporary field authorizations • Forest harvest activities - landings, block roads • Oil sand exploration programs • Transmission lines • Below-ground pipelines
Level 2	Moderate	• Well sites • Roads • Work camps • Central processing facilities
Level 3	High	• Surface materials • Rock-hosted metallic and industrial minerals • Surface mining or mining



Surface materials

Extract surface materials in a manner that reduces overall footprint and environmental impact

Surface materials (also known as aggregates) refer to materials such as sand, gravel and clay. In the sub-region, aggregates are used both by industry and provincial and municipal governments to access resources and develop infrastructure.

This plan provides opportunities for ongoing extraction of surface materials while reducing footprint in areas supporting Treaty rights, biodiversity, caribou recovery, and recreation and tourism opportunities. Surface materials operations will be subject to Access management and restoration requirements.

Outcomes

- Maintain a diversity of economic opportunities in the sub-region
- Improve landscape conditions to support caribou habitat recovery for healthy caribou herds

Policy objectives and requirements

27. Manage footprint to maintain integrity of sensitive wildlife habitat and major watercourses.

- 27.1. New surface material exploration or development activities will not be permitted within the Nature-first Zone.
- 27.2. New surface material dispositions must follow the appended development rules in the Access management section.
- 27.3. If in alignment with footprint thresholds in Table 5, new surface material dispositions may be permitted within Compartment A.¹¹
- 27.4. New and existing surface materials dispositions will be required to achieve Level 3 restoration. For sites larger than 32 ha, an end pit lake can cover no more than 50% of the total hectares disturbed.
- 27.5. A site, or portion of a site, will be exempt from the requirements if it is pending reclamation certification at the time of policy approval.
- 27.6. Surface material exploration activities will be required to achieve Level 2 restoration.

¹¹ This subsection, along with Table 5 thresholds, establish requirements that will be directly applied in decision-making, is intended to be implemented as a binding rule, and used by decision-makers to deny or approve surface disturbance related to a surface material lease for surface material extraction.

Table 5 5. Compartment A surface materials footprint thresholds

Existing surface material footprint (ha)	Footprint threshold (ha)
420	462

Peat

Support sustainable peat development opportunities

The Government of Alberta's existing directive on the *Allocation and Sustainable Management of Peat Resources on Public Land (2017)*, established under the *Public Lands Act*, governs the allocation and management of peat resources on public land. Compliance with the existing guidance, which may be amended from time to time by the Minister responsible is essential to meet the outcomes of this sub-regional plan.

Outcomes

- Maintain a diversity of economic opportunities in the sub-region.
- Retain lands that support caribou habitat recovery for healthy caribou herds.

Policy objectives and requirements

28. Manage peat extraction responsibly.

- 28.1. New peat extraction operations must be located entirely outside of the Nature-first Zone, Public Land Use Zone, Special Access Zones, Compartment A. Existing approved dispositions will be honoured.
- 28.2. Peat extraction operations must comply with the *Allocation and Sustainable Management of Peat Resources on Public Land (2017)* and the *Requirements for Conservation and Reclamation Plans for Peat Operations in Alberta (2016)* as may be updated from time to time.
 - 28.1.2. Reclamation must re-establish trees if trees were on the site pre-disturbance.
- 28.3. Amendments or updates to an existing approval that modify the approved end land use will require technical review and mitigation.

29. Monitor and report on outcomes

- 29.1. Alberta will monitor and review indicators to inform sustainable peatland harvest and minimize disturbance in peatlands of high value for fire prevention and ecological values.
- 29.2. If negative trends in water quality are identified in adjacent waterbodies and watercourses, additional mitigations may be required to be completed by the operator.
- 29.3. When submitting the Annual Operating Report, holders will report on:
 - 29.3.1. Area that has undergone reclamation earthworks, reclamation activities; and
 - 29.3.2. Activities completed to achieve reclamation as assessed at time of initial approval.

Recreation and tourism

Focus and enhance recreation and tourism management to provide quality and sustainable recreation experiences

The Red Earth planning area supports a wide range of outdoor recreation uses including activities like hunting, fishing, camping, watersports and off-highway vehicle use and overland opportunities. The area provides ample informal recreation opportunities to experience solitude while connecting with nature.

To grow tourism, benefit the economy, and create employment in the sub-region, this plan identifies areas of focus for recreation management and trail planning intended to enhance user experience while minimizing impacts to sensitive areas.

Deliberate management will:

- Identify specific areas to prioritize outdoor recreation and tourism
- Ensure recreation management areas support outdoor recreation activities and tourism development that are compatible with the ecological values of the area
- Consider and manage land uses to ensure they do not compromise the cultural and historical values that also attract users to these areas

Outcomes

- Enhance recreation and tourism opportunities and infrastructure in desirable destination areas
- Support Indigenous-led tourism as an economic diversification opportunity and to increase awareness of Indigenous culture and values
- Maintain the integrity of areas that support local recreational use
- Develop a sustainable trail system that supports a diversity of user needs

Policy objectives and requirements

30. Identify priority areas for recreation and tourism.

- 30.1. Identify the areas in Figure 6 as Recreation Management Areas (RMAs) where recreation and tourism outcomes are a priority land use. RMAs do not include or change existing *Provincial Parks Act* or Wilderness Areas Ecological Reserves Natural Areas Heritage Rangelands sites.
- 30.2. Develop trail management plans for new and existing recreation sites to designate trails, add, upgrade and/or modernize infrastructure (e.g. facilities, services and trails), and support high quality visitor opportunities.
- 30.3. In locations with trail management plans, motorized recreation, including snow vehicles, will be permitted on designated trails identified on a map published by the Department permitting off-highway vehicle use.
- 30.4. 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.

Outside the identified recreation and tourism management area, tourism and recreation development proposals may be considered where compatible with the sub-regional vision and land-use priorities.

31. Designate the La Crete Lacadena Ridge Public Land Use Zone.

- 31.1. Establish the La Crete Lacadena Ridge Public Land Use Zone under the *Public Lands Act*, identified in Figure 6.
- 31.2. A disposition or an amendment to permit surface disturbances will not be issued, approved, or renewed in the Public Land Use Zone with the following exceptions:
 - 31.2.1. Tourism and commercial recreation dispositions will be permitted.
 - 31.2.2. Existing petroleum and natural gas tenure will be honoured.
- 31.3. Motorized recreation, including snow vehicles, will be permitted in areas identified on a map published by the Department permitting off-highway vehicle use.
- 31.4. Hunting, fishing, outfitting and trapping will continue in accordance with existing provincial laws.

32. Minimize impacts of recreation activities.

- 32.1. All designated trails within caribou range will be limited to a clearing width no greater than four metres.
- 32.2. Recreation and tourism features and infrastructure planned within Key Wildlife and Biodiversity Zones will align with the requirements for Key Wildlife and Biodiversity Zones.
- 32.3. Trail management planning will incorporate strategies to reduce human wildlife conflict, which may include strategies such as addressing location, timing and infrastructure design.
- 32.4. Outside of recreation management areas, trail management planning and operational tools will be used to provide sustainable and desirable recreation opportunities including public access to lakes and riparian areas while maintaining ecosystem integrity of lakes, watercourses and their watersheds.
- 32.5. The area in the vicinity of Peerless Lake, Graham Lake, and Vandersteen Lakes is recognized as important for fish habitat and recreational values.

Overview of the Recreation Management Areas:

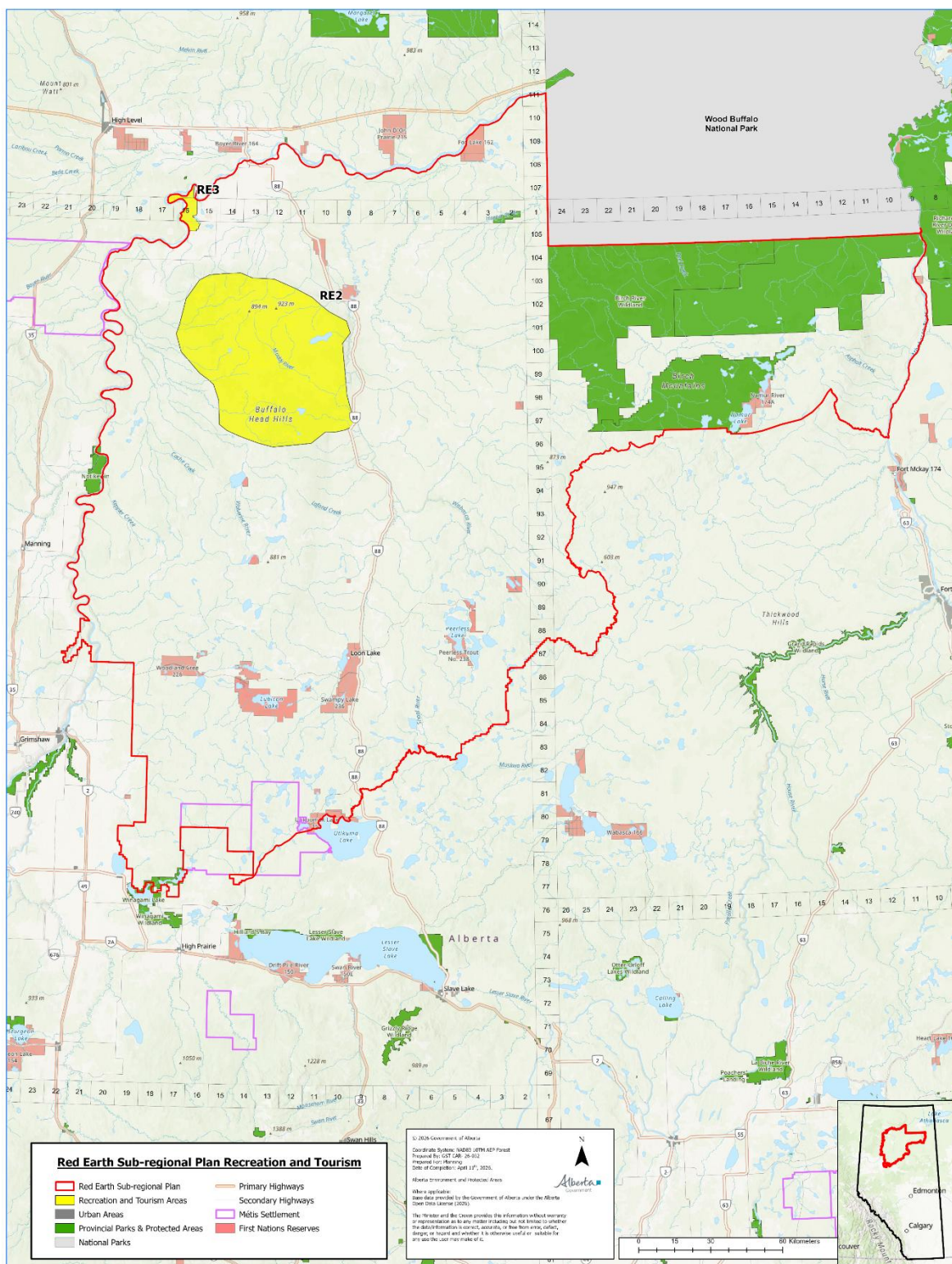
Buffalo Head Hills (RE2)

This area includes Buffalo Head Hills and surrounding lands. Wadlin Lake is an important recreational feature in addition to the value for traditional land use. Trail management planning will continue to provide year-round sustainable and desirable trail development and management that can support maintaining the integrity of the area.

La Crete Lacadena Ridge Public Land Use Zone (RE3)

This area is notable for its sand dunes, specifically a dune ridge, that is a unique landscape feature in Alberta. Sensitive wildlife habitat exists along the river. With recreation and trail management planning, this area also has potential for recreation and tourism development.

Figure 6. Recreation Management Areas





Grazing

Support grazing opportunities

In the sub-region, grazing is a supported activity permitted on Crown lands within the Green area and White area. Grazing dispositions may be granted in the White area, subject to evaluation of land suitability and compatibility with other uses. This land use is not prevalent in the sub-region as approved grazing areas occupy 0.1% of the sub-region.

Outcomes

- Support the most economically valuable development opportunities on public lands.
- Retain Crown lands to support current and future traditional land uses, including the exercise of Treaty rights.
- Retain lands that support caribou habitat recovery for healthy caribou herds.

Policy objectives and requirements

33. Maintain public access to lands in the Green area.

- 33.1. New grazing dispositions (permits, licenses, leases) or reservations on public lands are not permitted within the Nature-first Zone and Compartment A identified in Figure 3.
- 33.2. Grazing dispositions may be issued for areas outside Compartment A subject to an assessment of livestock grazing suitability and compatibility with other land uses, including an assessment of disease risk in association with a bison recovery plan.



Public lands

Maintain public lands for the use and enjoyment of all Albertans

Public lands maintain access to ongoing resource extraction and economic growth opportunities, provide opportunities for traditional land use, including the exercise of Treaty rights, and are required to support caribou recovery and biodiversity conservation. Protection of important areas such as wildlife sensitive areas, riparian areas and significant landforms contribute to retain biodiversity conservation.

Outcomes

- Support future opportunities for economic development on public lands.
- Support the ongoing use and enjoyment of Crown lands by Albertans.
- Retain Crown lands to support current and future traditional land uses, including the exercise of Treaty rights.

Policy objectives and requirements

34. Maintain public access to identified lands in the Green area.

- 34.1. Public land sales may be supported where there is an overlapping approved area structure plan or municipal development plan in place upon coming into force of this plan.
- 34.2. Public land sales may be supported where Alberta is considering lands for auction upon coming into force of this plan.
- 34.3. Public land sales may be supported if they overlap the footprint of an existing/historic Métis residence that is deemed appropriate for sale by Forestry and Parks.
- 34.4. Public lands may be transferred to support the creation or expansion of a First Nation reserve or to a Metis settlement.
- 34.5. Public land sales will not be permitted in the Green area except for the reasons identified above.
- 34.6. Public lands shown in Nature-first and Public Land Use Zone will not be available for sale.

Legacy seismic lines

Treat legacy seismic lines to promote future contiguous habitats.

The sub-regional plan cannot achieve its outcomes of supporting new development and increasing undisturbed habitat over the landscape 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 disturbance associated with seismic operations. However, many older or “legacy” seismic lines are not supporting forest regrowth and remain on the landscape decades after they were constructed.

Restoring legacy seismic lines helps reduce the amount of economically unproductive footprint in the subregion, reducing landscape fragmentation, supporting biodiversity and providing opportunity for new development.

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. This program directs restoration priorities, guides operations, and involves local and Indigenous peoples in restoration activities and outcomes.

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

- Support ongoing resource development opportunities supported by a restored landscape.
- Improve landscape intactness in areas that support caribou habitat recovery for healthy caribou herds.

Policy objectives and requirements

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

35.1. Following Plan approval, the Caribou Habitat Recovery Program (CHRP) will coordinate restoration of legacy seismic lines:

35.1.1. In decade 1 within caribou range and within five kilometers of a First Nations reserve and Metis Settlements,

35.1.2. In decade 2 within Nature-first and Compartment A.

35.1.3. In decade 3 within the Go Zone

35.2. Seismic lines that overlap the first three decades of the harvest timing series will not be considered for restoration until after forest harvest is completed.

35.3. A legacy seismic line restoration component will be included as part of surface rent for formal dispositions within the caribou ranges.

Other disturbances

Plan for development into the future

Development opportunities in existing and emerging industries may become more prevalent on public lands in the sub-region in the future. For project types this plan does not explicitly identify (for example, currently undiscovered resource types or renewable energy projects), proposals will be based on existing provincial policy, including the requirements in this plan.

Outcomes

- Support future opportunities for economic development
- Ensure plan outcomes are achieved into the future
- Support long-term landscape intactness for caribou habitat recovery and sensitive habitat conservation

Policy objectives and requirements

36. Provide clarity of requirements for future development.

- 36.1. For activity types not considered in this plan, new surface disturbance is not permitted in the Nature-first Zone.
 - 34.1.1. Existing footprint may be used to access subsurface tenure.
 - 34.1.2. If an emerging industry is developing a new resource that requires footprint within the Nature-first Zone, a plan review may be triggered.
- 36.2. In Compartment A, new surface disturbance or expansion of existing surface disturbance may be permitted if the operator demonstrates that the corresponding area of footprint will be restored at a 1:3 restoration ratio, as noted in Table 2 and meet requirements in Section 6 of the Access management section.
 - 34.2.1. Re-use of active footprint is permitted.
 - 34.2.2. Re-use of inactive footprint is permitted if it is not identified for restoration under the targets in Table 3.
- 36.3. Roads associated with new activities must align with the requirements outlined in the Access management section.

Monitoring

Monitor individual and cumulative effects and adapt management in response to indicators

Tracking and reporting on indicators provides valuable information to help land managers, Indigenous peoples, stakeholders and the public understand whether desired outcomes in the sub-region are being achieved. Monitoring indicators have been chosen based on efficacy as well as the availability of baseline data. Many are often already tracked by Alberta (for example caribou population data) or are easily generated from regularly maintained existing datasets.

The sub-regional plan will address a range of cumulative effects across the sub-region. Impacts of cumulative disturbances are often assessed using species and landscape indicators that help us understand risks to values associated with human disturbances. A set of indicators has been identified to assess the environmental implications of land uses. Socio-economic indicators are used to evaluate the economic and social results of the plan. These will be tracked alongside environmental indicators.

In addition to indicators, regulators collect information and data about the activities they authorize. Making monitoring 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.

Outcomes

- Facilitate awareness about changes to the Red Earth sub-region following plan implementation
- Track progress towards achievement of the plan's outcomes

Policy objectives and requirements

37. Monitor key indicators to support evaluation of the plan.

- 37.1. Regulators authorizing activities in the sub-region will share information and data for efficient implementation and review of the sub-regional plan.
- 37.2. Indicators in Appendix B will be evaluated periodically to assess progress towards achieving the plan's outcomes.

38. Monitoring cumulative effects from energy development.

- 38.1. Pipeline dispositions, oil sands exploration programs, surface material exploration programs or metallic mineral exploration programs are not included in the disturbance parameter. Within six months of this Plan coming into force Alberta Environment and Protected Areas (EPA) will establish and publish a baseline measure of cumulative energy disturbance within the Plan Area, barring exemptions. Two years after the plan's coming into force date and with every five-year evaluation and 10-year review, EPA will publish a report that identifies the current cumulative energy disturbance metrics so EPA and other regulators can monitor progress toward the Plan outcome of reducing disturbance on the landscape from energy development.

38.1.1. This report is not intended to be used as part of regulatory approval; rather, it is to be used as input into updates of the plan.

Pipelines are managed separately from the energy industry and are not part of cumulative energy monitoring. See the Linear Features section for more information on pipeline management. The monitoring of energy development will not be used to inform individual project approvals.



Implementation committee

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

An implementation committee will be set up to support the implementation of the Red Earth Sub-regional Plan. It will be chaired by the Government of Alberta and have representation from Indigenous peoples and organizations, local municipalities, energy and forestry sectors, and others as appropriate. While not a decision-making body, the implementation committee will serve to identify local and other perspectives regarding plan implementation.

Outcomes

- Involve stakeholders and rights holders in discussion on the effectiveness of the sub-regional plan
- Identify gaps and opportunities in sub-regional plan implementation and monitoring
- Identify emerging issues within the sub-region

Plan review

Regularly assess plan effectiveness and adjust management approaches as needed to reflect social, economic and environmental circumstances, including traditional land uses

Building on monitoring and reporting, regular sub-regional plan assessments are 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
- Increase landscape intactness to support caribou recovery for healthy caribou herds
- Support sustainable recreation and tourism opportunities
- Retain Crown lands to support current and future traditional land uses, including the exercise of Treaty rights

Policy objectives and requirements

39. Regularly assess the effectiveness of the sub-regional plan.

39.1. The plan will be reviewed within five years after coming into force. This review will include engagement with rights-holders and stakeholders. This review will consider:

39.1.1. Plan effectiveness for socio-economic outcomes, including Alberta's ability to double oil and gas production.

39.1.2. Plan effectiveness for caribou recovery outcomes.

39.1.3. Plan effectiveness for managing cumulative impacts to Treaty rights and other traditional land uses.

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

39.3. The plan may be adjusted based on results of the reviews.

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

40.1. A plan assessment will be completed if:

- 40.1.1. The annual total natural disturbance (e.g. wildfire, insects, weather events) within a caribou range exceeds 1%.
- 40.1.2. Within eight years of the plan coming into force the cumulative new natural disturbance exceeds 4% of a caribou range.
- 40.1.3. Within 10 years of the plan coming into force the cumulative new natural disturbance area exceeds 4% of the entire sub-region.

41. Ensure relevancy of the plan with the addition of new in-situ project areas.

41.1. A plan amendment to reevaluate road densities may be completed if a new in-situ project area, or an amendment to the boundaries of an existing in-situ project area, overlaps the lands identified in a Compartment identified in Figure 3. The following section will be amended: Access management.

42. Regularly assess caribou range boundaries.

42.1. Caribou range boundary updates will be considered during plan review periods in alignment with 39.1. The first caribou range boundary update will take place a minimum of 10 years after this plan comes into force, and then on a 10-year cycle after that.

Glossary

Term	Definition
Access control	Detering access to and travelling on linear features, including seismic access lines, 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 extraction area	Lands that are cleared of vegetation and soil for the purpose of extracting surface materials, but does not include roads, facilities, storage sites, restored areas, or lands undergoing reclamation.
Active well	A well that produces 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.
Anthropogenic Footprint or human-caused	The visible alteration or conversion of native ecosystems to temporary or permanent recreational, agricultural, or industrial landscapes by human use.
Annual Operating Plan	A plan prepared and submitted by the timber disposition holder each year to the relevant Department, which when approved, provides the authorization to harvest.
Annual Operating Plan approval	An authorization to harvest timber issued under the <i>Timber Management Regulation</i> .
Annual Operating report	For peat operations, as described in <i>Allocation and Sustainable Management of Peat Resources on Public Lands (2017)</i>
Appended development	Means development that occurs within 100 metres from the edge of the lands contained in the formal disposition for a primary road.
Bison range	Those lands identified as bison range in Figure 2.
Borrow	Sand, silt or non-manufacturing clay material for use in construction projects.
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 boreal caribou (<i>Rangifer tarandus</i>) 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 relevant Department, as amended, or replaced from time to time.

Caribou range	Those lands identified as caribou range in Figure 2.
Closed HTS	A HTS during which timber harvesting is not permitted.
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, Operation and Reclamation Plan (CORP)	Term used to reference multiple plans required and submitted at time of application or throughout the disposition lifecycle as updated from time to time, to manage aspects of that disposition. These plans include, but are not exclusive to: • Conservation and Reclamation Business Plans (CRBP) • Construction, Operation and Reclamation Plans (CORP) • Conservation and Reclamation Plans • Development, Management and Reclamation Plan (DMRP) • Operation Plans • Business Plans • Reclamation Plans • Remediation Plans
Critical sour well	A well designated by the Regulator as a well for drilling purposes with an H2S release rate greater than or equal to 2.0 m3/second or other wells with a lesser H2S release rate in close proximity to an urban centre.
Decision-maker	A decision-maker as defined under the <i>Alberta Land Stewardship Act</i> .
Designated trail	A trail used for recreation and has been designated by the Designated Minister referred to in section 7 under section 4(1) of the <i>Trails Act</i> .
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 <i>Public Lands Act</i> .
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.
Exploration approval	An exploration approval as defined under the <i>Mines and Minerals Act</i> .
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.
Existing footprint	Any human-caused spatially identifiable surface disturbance that remains visible or functionally altered on the landscape at the time of assessment and has not been fully reclaimed.
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 <i>Forests Act</i> 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.
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 aggregated harvesting approach to timber harvest within an area identified in Figure 5 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 pad	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 <i>Constitution Act</i> , 1982.
In situ project area	The boundaries within which bitumen recovery may occur over the life of an in-situ project, including any changes to the boundaries over time, approved under the <i>Oil Sands Conservation Act</i> .
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 relevant Department, as amended or replaced from time to time.
Landscape intactness	Areas not affected by recent fire (<40 years) and located more than 500 m from human disturbance features such as roads, seismic lines, or harvest areas. This aligns with the definition of undisturbed habitat in the federal recovery strategy for Woodland Caribou, Boreal population (2012).
Large permanent watercourse	Major streams or rivers; well defined flood plains; often wide valley bottoms. Non-vegetated channel width exceeds 5 metres.
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 <i>Oil and Gas Conservation Act</i> .
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 the sub-regional plan.
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 5 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.
Open HTS	A HTS that is available for the harvesting of timber during the HTS identified in Figure 5.
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.
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 as defined in the <i>Public Lands Act</i> .
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 the Access management section.
Proposed primary road	A road requiring a formal disposition, and that meets the requirements of the Access management section.
Progressive reclamation	Interim or concurrent reclamation undertaken during, following, or in connection with construction, development, and ongoing operations associated with an active disposition where there is no expectation of re-disturbance and where the final approved plant community is establishing. For well sites, minor re-disturbance may be required to replace reclamation material over the operational area (tear drop) at final reclamation.
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.
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 <i>Responsible Energy Development Act</i> .
Regulatory body	The regulatory body that issued the statutory consent.
Recreation Management Area (RMA)	an area identified as a recreation management area or a trail planning area.
Recreational purpose	A recreational purpose as defined under the Public Lands Administration Regulation.
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 underground pipelines. Typically, the ROW is a specially designated area of land having very specific rights of usage attached.
Riparian areas	Transitional areas between upland and aquatic ecosystems that include both above and below ground lands and are variable in width.
Road classification	A classification as published by the relevant Department, 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 other than brine-hosted metallic and industrial minerals.
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 Zones	Special Access Zones (SAZ) are areas of natural habitat within an intensively developed landscape. Maintaining contiguous habitat parcels is important all wildlife species that tend to cluster in these regions. Generally, these conditions are to maintain the integrity of wildlife habitat in regions where multiple uses occur. These areas have special access requirements and can be found using the Landscape Analysis Tool (LAT).
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 <i>Alberta Land Stewardship Act</i> .
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 <i>Alberta Land Stewardship Act</i> and ministry legislation (for example, <i>Public Lands Act</i>), sub-regional plans are built through a collaborative process and include input and feedback from Indigenous peoples, stakeholders, and the public.
Sub-regional plan area	The geographical area identified in Figure 1.
Surface material	Sand, gravel and borrow—does not include peat.

Temporary Field Authorization (TFA)/ Regulator Temporary Field Authorization (RTF)	Stand-alone authorizations issued for short-term activities for the occupation and use of public land issued under the <i>Public Lands Act</i> 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. Additionally described in PLAR Tables A1 and A2.
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 - Forestry	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).
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 Métis 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.
Traditional values	Values associated with the traditional land uses of First Nations and Métis, including the exercise of rights to hunt, fish and trap for food.
Trail	Infrastructure that is purposefully designed and used for one or more recreation activities, that must be approved by the Crown or the private landowner, mapped, marked and actively managed and maintained.
Trail Management Plan	A plan established by the Designated Minister referred to in the Recreation and Tourism section that identifies the location of a designated trail and permitted uses for a trail.
Transitional road	A road that (i) exists on the landscape at the time this Part comes into force; (ii) is authorized under a formal disposition, (iii) accesses development, and (iv) is not considered a primary road.
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 relevant Department.
Undisturbed habitat	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	Refers to terrestrial areas that are sufficiently dry and well-drained to support upland ecological and soil-forming processes, and that are not classified as wetlands or open-water environments.
Vegetation control	The selective removal, control, or other management of vegetation growth.
Waterbody	A water body as defined in the <i>Water Act</i> .
Watercourse	A watercourse as defined in the Water (Ministerial) Regulation.
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 relevant 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 relevant Department, as amended, or replaced from time to time.
White area	The White area (settled portion) 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 - Permitted activities

Table 66. Permitted activities

Activity	Nature-first Zone	Go Zone*
Petroleum and natural gas	No new surface disturbance will be permitted. Existing commitments will be honoured.	✓
Oil sands	No new surface disturbance will be permitted. Existing commitments will be honoured.	✓
Rock-hosted metallic and industrial minerals	No new dispositions will be issued. Existing commitments will be honoured.	✓
Surface materials	No new surface material exploration or development activities will be permitted Existing commitments will be honoured.	✓
Forestry	No new long-term tenure can be issued (FMAs and quotas). Existing quota and short-term permits can be managed for wildlife and wildfire objectives.	✓
Grazing	X	✓
Peat**	X	✓
Hunting, fishing, trapping (including Treaty rights and traditional land uses)	✓	✓
Recreation and tourism	✓	✓

* Some activities within Compartment A in the Go Zone may have additional restrictions or considerations, please see section for additional details.

**Peat is not permitted within the Special Access Zones, which can be found using the Landscape Analysis Tool.

Appendix B - Monitoring indicators

These monitoring indicators were developed by the Government of Alberta, using existing data primarily from the Ministries of Environment and Protected Areas, Forestry and Parks, and the Alberta Biodiversity Monitoring Institute.

Table 77. Monitoring indicators

Indicator	Indicator Description
American marten	This indicator estimates the habitat suitability of an area for American marten (<i>Martes americana</i>) within Alberta's ecosystems.
Barred owl	This indicator estimates the area of habitat suitable for Barred Owl (<i>Strix varia</i>) within Alberta's ecosystems. The 2026 update introduces revised methods that differ from previous approaches by no longer relying on AVI data, which does not adequately cover all areas required for Sub-regional plan (SRP) analysis.
Bison population demographic rates	Estimated trend in population growth. Desired objectives differ for each population.
Bison habitat	Amount (ha) of key bison habitat types required by wood bison such as key winter foraging habitats (e.g. graminoid wetland cover).
Caribou biophysical habitat	Amount (ha) and trend of biophysical attributes required by caribou including specific forest tree-species composition, forest age, wet-areas, and disturbances.
Caribou population demographic rates	Estimated trend in population growth (lambda).
Caribou population size and status	Estimated number of caribou and achievement of self-sustaining status.
Disturbed/ undisturbed caribou habitat	Amount (%) and trend of undisturbed habitat within caribou range as defined by the federal recovery strategy for Woodland Caribou, Boreal population (2012).
Cumulative forestry footprint on RFMAs	Amount (%) of footprint on a Registered Fur Management Area (RFMA) from timber harvest areas less than 40 years old
First Nations reserves and Metis settlements	Amount (%) of industrial and commercial footprint disturbance within 5-kms around First Nations reserves and Metis settlements.
Fish Sustainability Index	Change in current adult density and flowing waters in need of habitat protection for arctic grayling in affected watersheds
Fisher	This indicator estimates the suitability of an area for Fisher (<i>Pekania pennanti</i>) habitat within Alberta's ecosystems.

Forest structure	The variety of forest structure on the landscape, estimated using the amount of area (%) in each forest stand type by seral stage.
Grizzly bear	Motorized access density in Grizzly bear habitat linkage, recovery, and support zones from the Alberta Grizzly bear Recovery Plan in addition to a Grizzly bear habitat index.
Hydrologic footprint recovery	The amount of forest area disturbed (%) from natural and anthropogenic disturbances, with consideration given to revegetation and recovery of hydrologic function.
Interior habitat	The amount of habitat (%) left unaffected after taking out anthropogenic disturbances and associated edge effects.
Landscape connectivity	The degree to which the landscape facilitates or impedes species' movements among resource patches. Calculated for both upland and aquatic habitats.
Legacy seismic line restoration	Kilometres of line restored, either through active restoration or by field-confirmed natural recovery.
Linear density	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.
Moose	This indicator estimates the suitability of an area for moose (<i>Alces alces</i>) habitat within Alberta's ecosystem.
Natural disturbances	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.
Peat	Area of peat related dispositions within the subregion and by wetland class.
Riparian and wetland native cover	The amount of wetland and riparian area free from anthropogenic disturbances. Calculated for each of Riparian, Bogs, Fens, Marshes, and Swamps.
Songbirds	This indicator estimates the area of habitat suitable for songbirds within Alberta's ecosystems. It can be calculated for the following species: Ovenbird (<i>Seiurus aurocapilla</i>), Black-throated green warbler (<i>Setophaga virens</i>), Canada warbler (<i>Cardellina canadensis</i>), Varied thrush (<i>Ixoreus naevius</i>), Brown creeper (<i>Certhia americana</i>), Olive-sided flycatcher (<i>Contopus cooperi</i>), Bay-breasted warbler (<i>Setophaga castanea</i>).
Stream connectivity	Amount of connected habitat (%) between upstream and downstream segments within a stream network, calculated at a HUC10 watershed scale.
Suitable habitat	Change in suitable habitat (%) relative to a baseline condition for a range of species including forest songbirds, Grizzly bear, Barred Owl and American marten.
Trumpeter swans	Waterbodies with known breeding Trumpeter swans (<i>Cygnus buccinator</i>) present.
Whirling disease	Confirmed detections and areas at risk of introduction or spread. Whirling disease is a disease of salmonid fish that has infected some trout and whitefish populations in Alberta.

Wildfire ignition exposure	The level of wildfire ignition exposure, calculated as a landscape metric using the proximity of nearby hazardous fuel capable of transmitting fire.
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Table 88. Socio-economic monitoring indicators

Indicator	Indicator Description
Economic conditions	Assessment of local economies (for example, employment). Supports understanding local economic conditions.
Fiscal conditions	Assessment of provincial and federal economies. Supports understanding local economies in the context of provincial and federal economic conditions.
Demographics	State and trends in sub-regional demographics (population size and composition). Supports informing future planning opportunities.
Community infrastructure	Community support structures (programs and facilities) in the sub-region (for example, health and social services and programs, housing conditions). Supports informing future planning opportunities.
Recreation	Recreational infrastructure in the sub-region (programs, trails, facilities, opportunities). Supports informing future planning opportunities.

Appendix C - Caribou biophysical habitat criteria

The Recovery Strategy for the Woodland Caribou (*Rangifer tarandus caribou*), Boreal population (October 2012), sets the strategic direction to arrest or reverse the decline of Woodland Caribou.

“Biophysical habitat” is the habitat characteristics required to carry out life processes necessary for survival and recovery, including the forest/vegetation cover type and seral stage.

Detailed biophysical habitat criteria identify which ecosites are considered high-quality habitat for woodland caribou. 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 the original biophysical habitat and/or ecosite ensures the site can recover back to its original habitat state to be available for the variety of species that reside there.

Caribou biophysical habitat consists of mature to old-growth coniferous forests (often 60–80+ years old), muskegs, and peatlands that provide essential, nutritional lichen forage, security from predators and favourable snow conditions.

During calving season, caribou prefer isolated, predator-free areas like peatlands, bogs, and lakeshores. In winter, mature conifer forests (pine, black spruce) provide caribou with both food and easier movement in snow.

The maintenance of caribou biophysical habitat, including specific calving season and winter season habitat conditions, is critical as they are necessary for the species' survival and recovery.

Caribou biophysical habitat criteria are currently being used to guide decisions about restoration in caribou range. These detailed criteria, including methodology for assessment, will be published by Alberta Environment and Protected Areas and will be included as part of other existing standards (e.g. 2010 Reclamation Criteria for Wellsites and Associated Facilities for Forested Lands).