

Challenges in the Critical Habitat of Alberta's Eastern Slopes



Presented by Sara Heerema, Conservation Outreach Specialist
with Alberta Wilderness Association

Introduction

Sara Heerema

Conservation Outreach
Specialist at Alberta
Wilderness Association (AWA)

- BSc and MES in Geography
- Specialized in climate science, environmental movements, and ties between social and environmental justice
- Now working in environmental education and advocacy
- Lover of the outdoors!

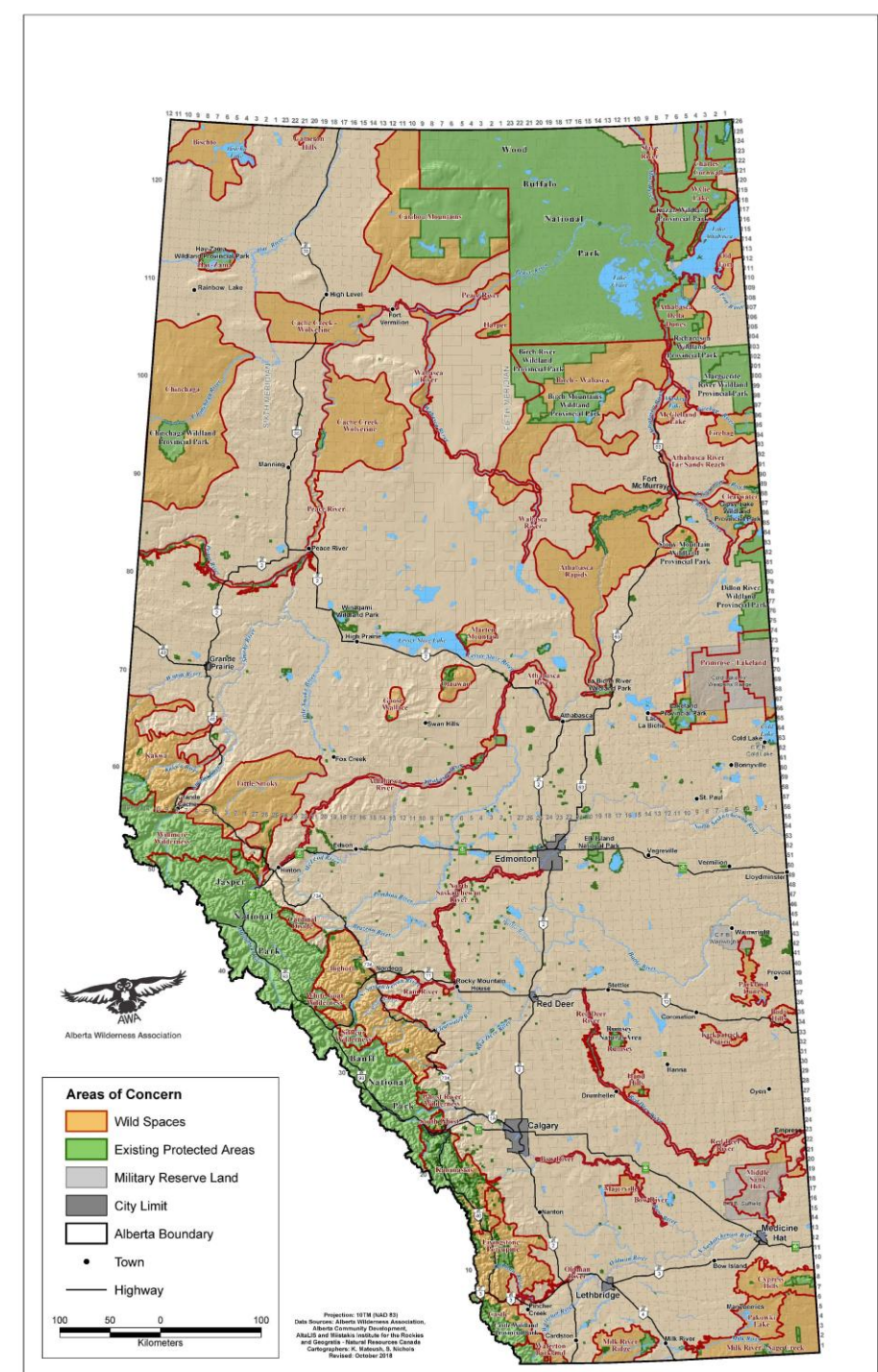


Alberta Wilderness Association

"Defending Wild Alberta through Awareness and Action"

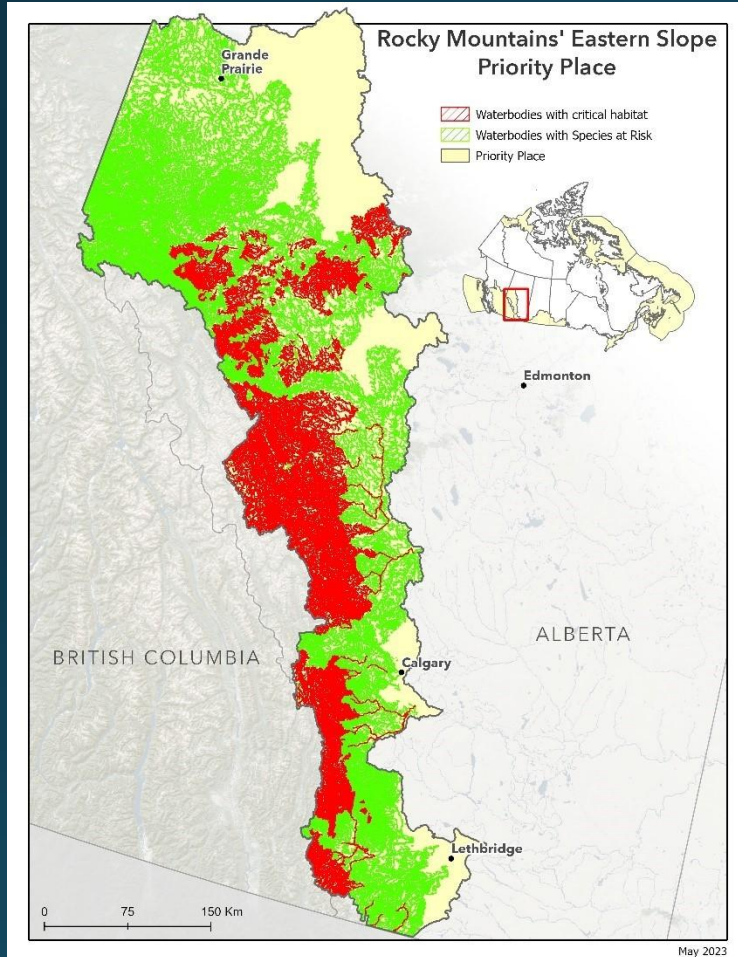


- Started in 1965 by backcountry enthusiasts concerned about "multi-use" land planning
- Gained support from local farmers and communities, and incorporated in 1969 as a charity
- Our goal is to see an expanded protected areas network in the province and better conservation of wilderness and wildlife
- We speak directly with the government and other organizations on policies and proposals for the province
- Public education (ex. Newsletter, journal, social media), and outreach (events, hikes, involvement in campaigns)



Where are the Eastern Slopes?

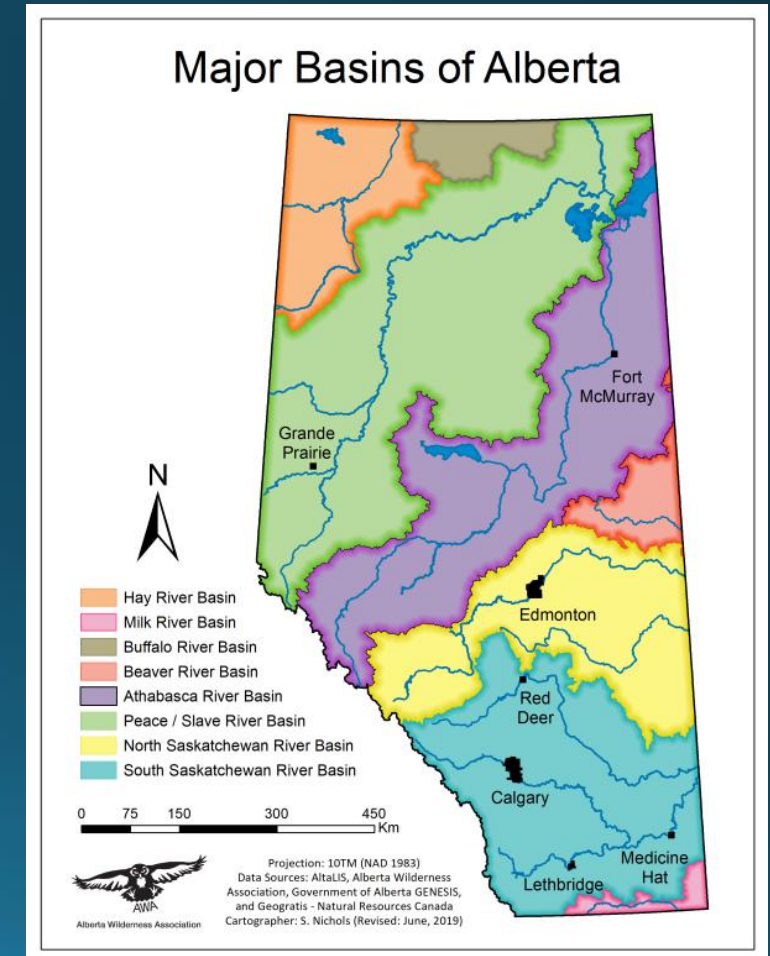
Rocky Mountains + Foothills



© Government of Canada



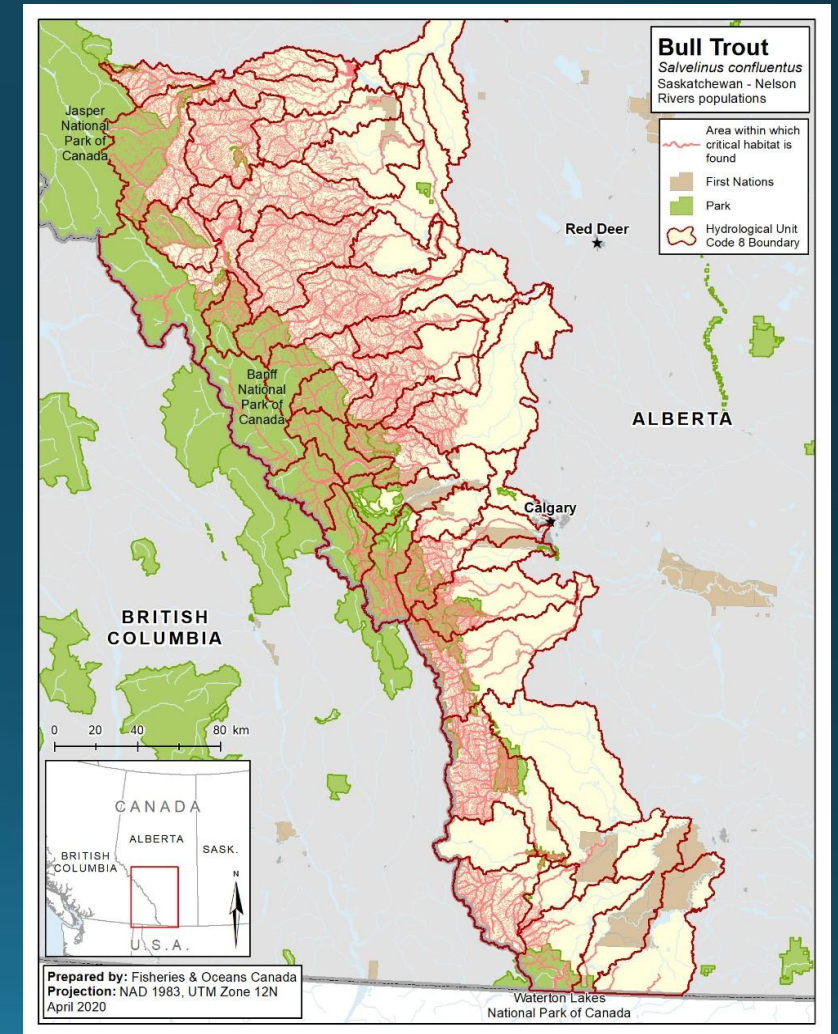
© Albertans for a Coal Free Rockies



What is Critical Habitat?

In a legal sense, **Critical habitat** (CH) is: “The habitat that is necessary for the survival or recovery of listed extirpated, endangered, or threatened species, and that is identified as CH in a recovery strategy or action plan.”

Essential, important, or required habitat is: A non-legal term which refers to areas that are important for ecosystem function or species survival, but which generally do not come with associated legal protections



Overview of locations of critical habitat for Bull Trout © DFO

Large-scale Concerns in the Eastern Slopes

Development/Recreation
All-season Resorts Act

Coal Mining

Forestry

Climate Change

Intensive Development and Recreation

Decreased and fragmented habitat

Damage to local areas and ecosystems

Increased runoff of sediment and deleterious substances

Increased human-wildlife conflict

Lowered ability for the land to perform ecosystem services

Contributions to climate change



All-season Resorts Act

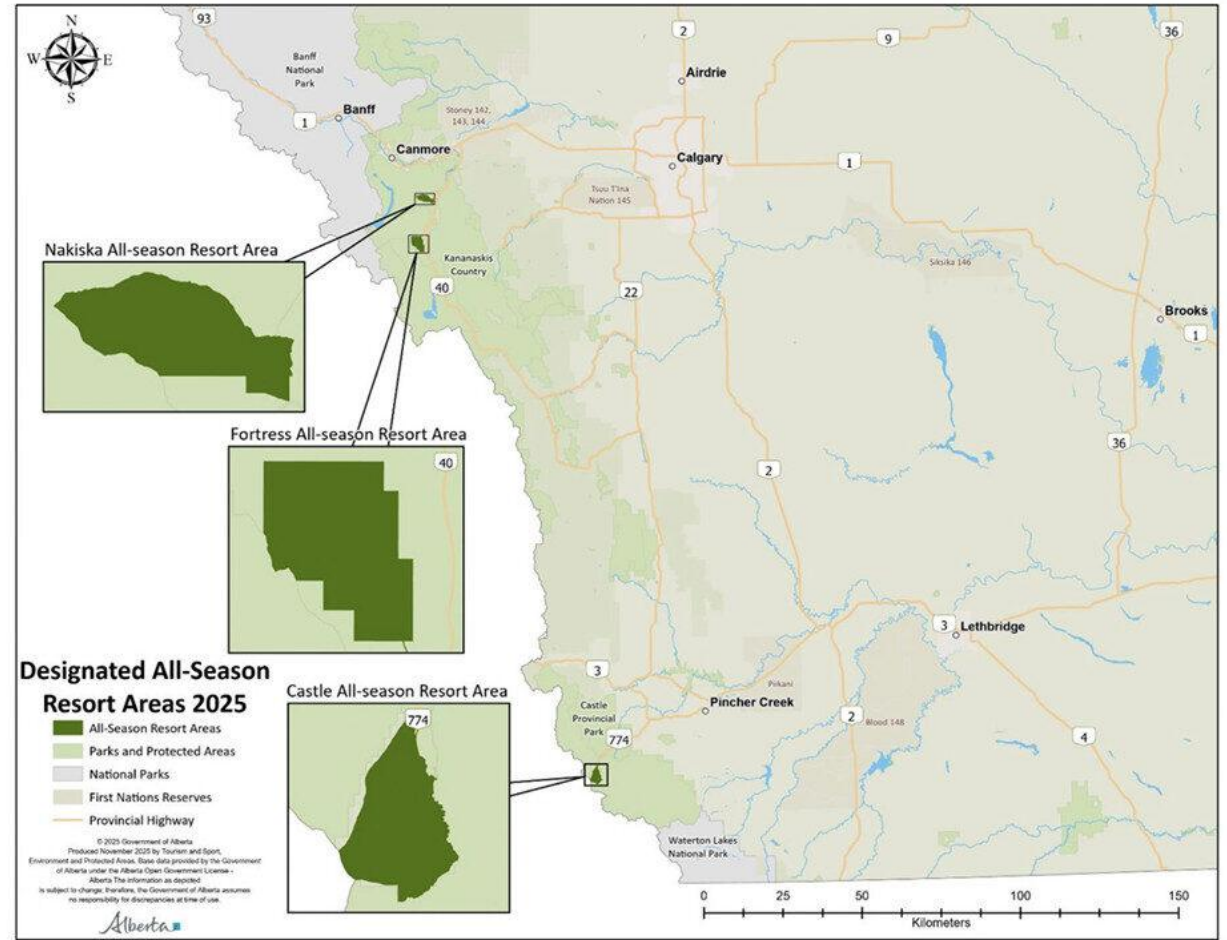
- Bill 35, the *All-season Resorts Act* (ASRA) passed in December 2024
- Enables the Ministry of Tourism and Sport to allocate public lands and re-designate protected areas for the creation of “All-Season Resort Areas”
- First three locations designated: Fortress Mountain Resort, Nakiska Ski Area, and Castle Mountain Resort
- Silvertip Resort & Gondola just designated; Grande Cache next in line



- Increases Ministerial Power
- 2/3 area designations are in areas with already unsustainable tourism pressure
- Reduces the thoroughness of reviews
- Causes a loss of protected areas and changes to park boundaries; **1,144 hectares** have been removed from the provincial park and protected area network so far

All-Season Resort Area Designations

Castle, Fortress and Nakiska

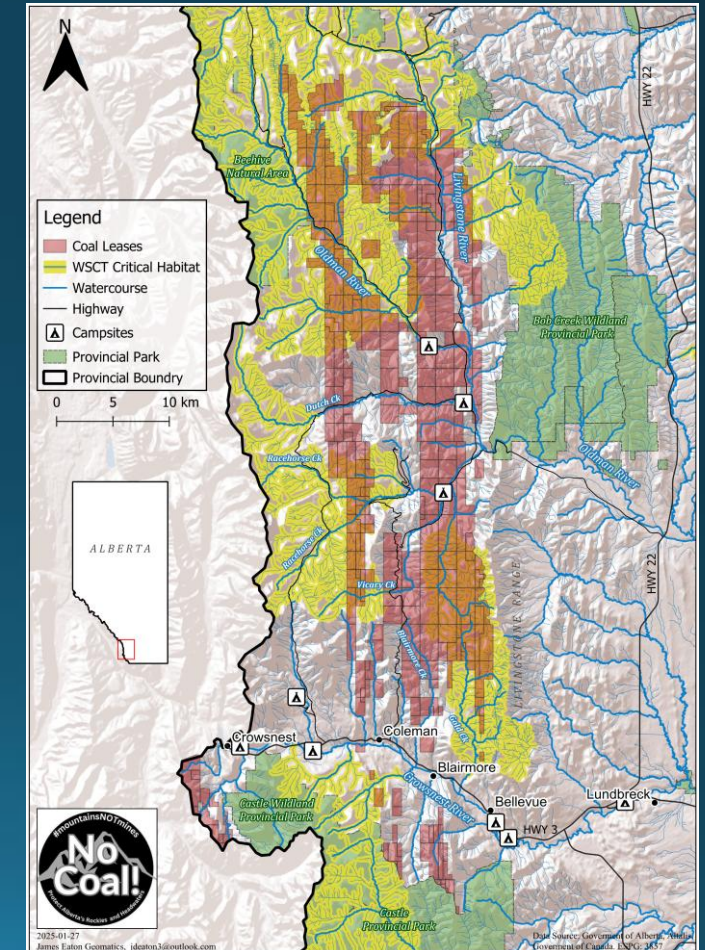


Coal Mining

“All phases of the coal use continuum (mining, processing, combustion, and waste disposal) create adverse public health and environmental impacts.”

-Impacts of Coal Use on Health (M. Hendryx, K. Zullig, & J. Luo., 2020).

- Large coal reserves found in the Eastern Slopes
- Mining causes habitat fragmentation and disturbance, alters local ecological conditions, pollutes the surrounding land, air, and water, and contributes to climate change
- An especially large threat to our headwater ecosystems
- Mitigation measures are often insufficient or fail, and restoration is lengthy and often incomplete



Changes to Alberta's Coal Policy



www.aer.ca

Bulletin 2025-03

January 20, 2025

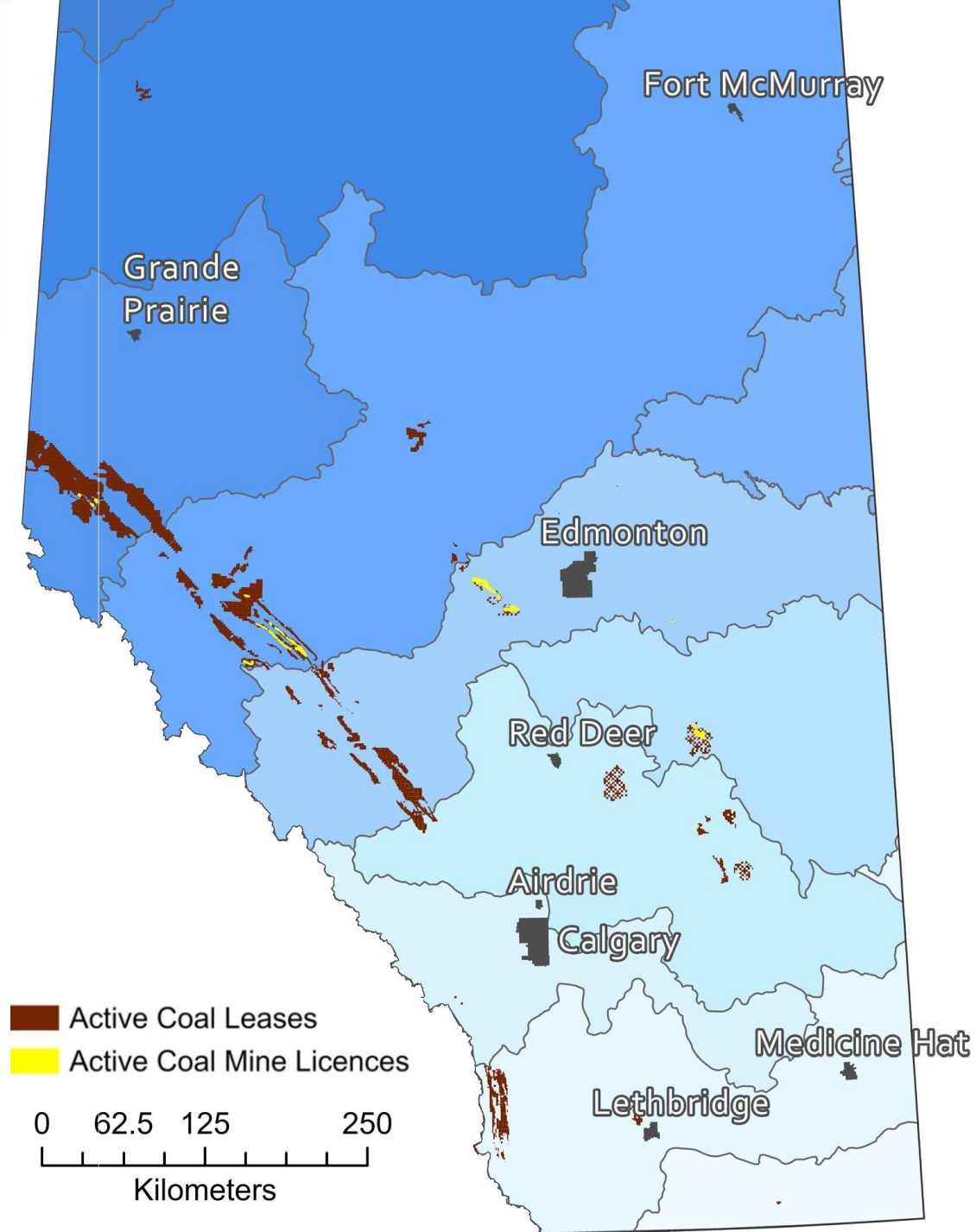
New Direction for Coal Activity in the Eastern Slopes of Alberta's Rocky Mountains

On January 16, 2025, the Alberta Energy Regulator (AER) received Ministerial Order 003/2025, issued by the Minister of Energy and Minerals, Hon. Brian Jean (included at the end of this bulletin).

The order rescinds the three previous ministerial orders (054/2021, 093/2021, and 002/2022) related to coal mining activities in the Eastern Slopes and confirms the 1976 [A Coal Policy for Alberta](#). The government has directed the AER to lift the suspension of all approvals and extend the expiry dates to account for the period of suspension. The AER is directed to comply with the directions given under Ministerial Order 003/2025 by January 31, 2025.

Under the 1976 policy, which is currently in effect, provincial lands are classified into four numbered categories with respect to coal exploration and development. The [coal land classification map](#) shows these categories. Under the policy, no coal exploration or development activities are permitted on Category 1 lands.

We will continue to implement future policy direction as it is received from the Government of Alberta. If you have any questions, contact our Customer Contact Centre by phone at 403-297-8311 (1-855-297-8311 toll free) or by email at inquiries@ aer.ca





Deforestation for exploration roads and drill pads



Release of drilling waste



Loss of public land access

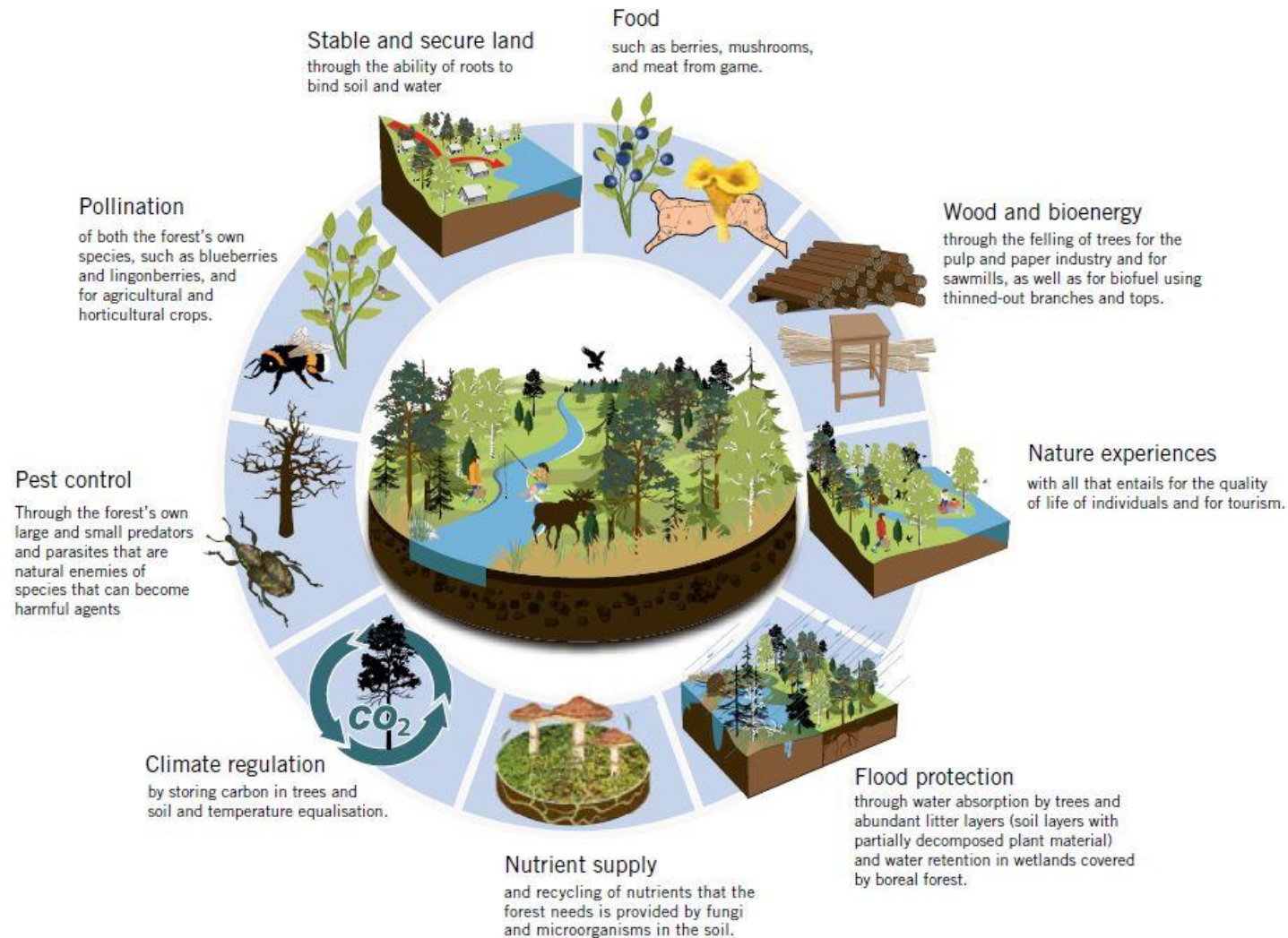


Loss of wildlife habitat,
ecological connectivity,
and ecosystem services

Contributes to soil erosion,
a source of contaminants

Changes in
topography and
drainage

Forestry





- Forestry is generally managed under Alberta's *Forests Act* and Forestry Management Units (FMAs)
- Many FMAs are situated in areas that are designated as wildlife corridors or critical habitat for species at risk
- Permits can be issued to destroy or impact critical habitat
- Reclamation is slow and often not as effective as we'd hope



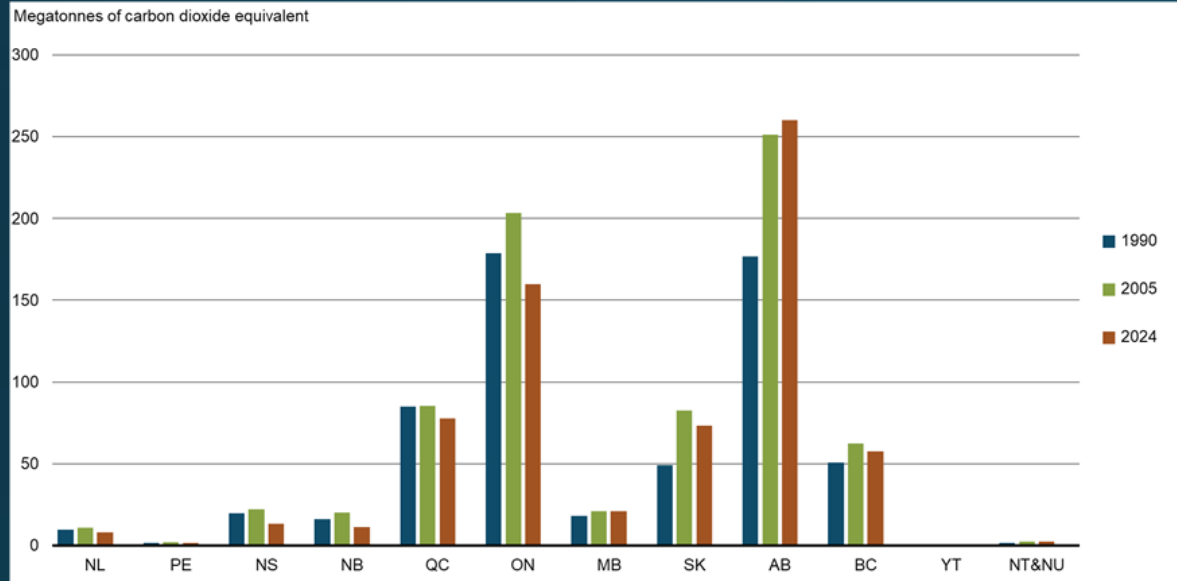
Before vs after logging road activity



As an example: AWA's 2026 Logging Review



Climate Change



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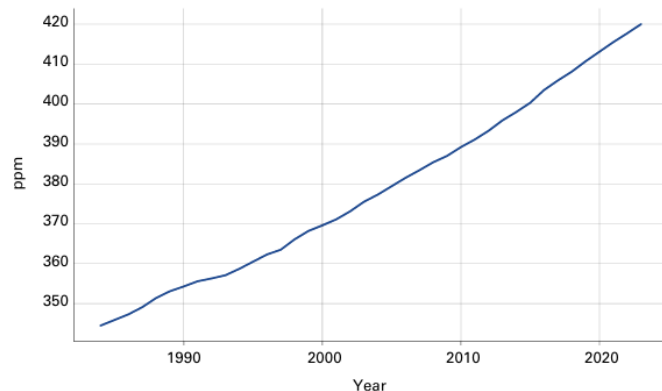
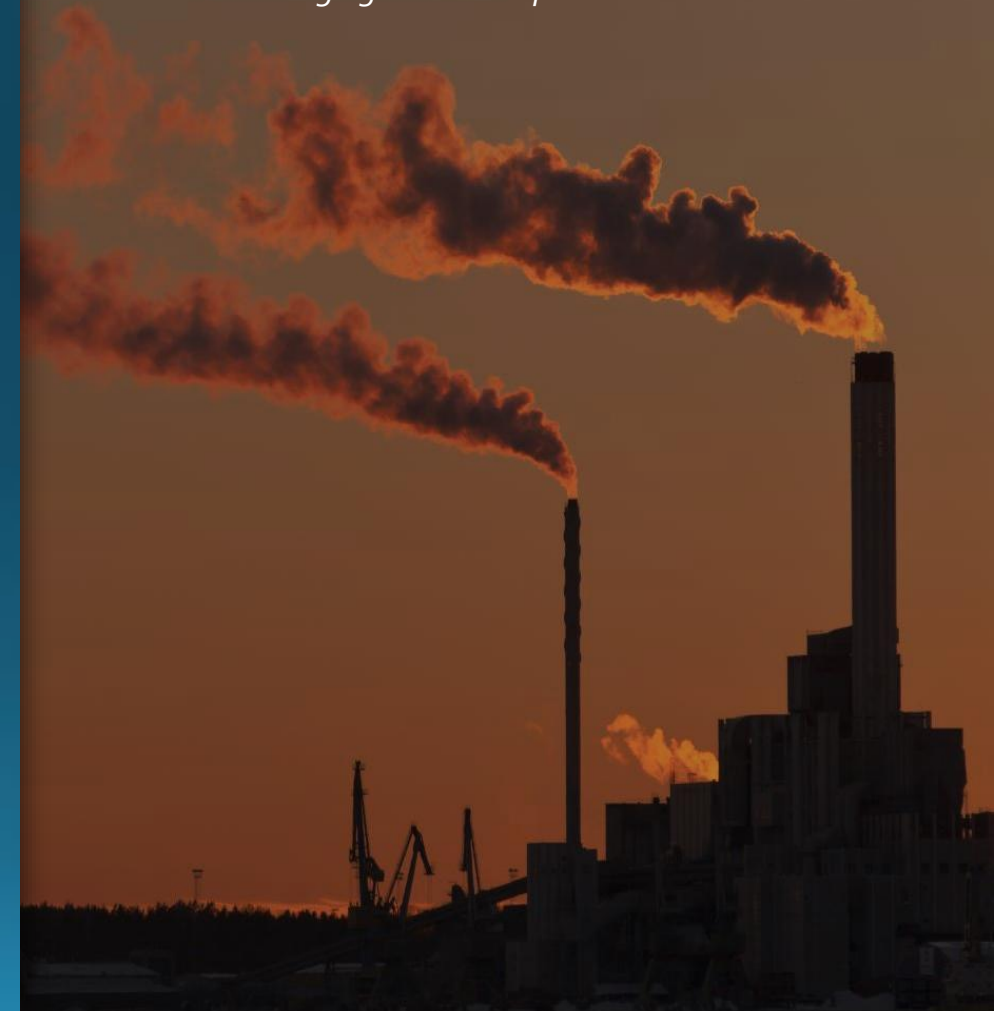


Figure 1. Annual mean globally averaged atmospheric mole fraction of carbon dioxide from 1984 to 2023 in parts per million (ppm)
Source: Data are from the World Data Centre for Greenhouse Gases (WDCGG). See [Datasets](#) and [methods](#).

"Headline Statement 4 Warming temperatures have driven wide-ranging, interconnected, and sustained changes across Canada. The changes include more extreme heat, less extreme cold, longer growing seasons, longer fire seasons, earlier peak stream flow, shorter snow and ice cover seasons, thinning glaciers, thawing permafrost, warming oceans, and rising sea level. Human-caused warming is the only explanation for the collective changes observed."

-Canada's Changing Climate Report



What Does That Mean for the Eastern Slopes?

- Hotter and faster-burning fires, which reduce natural regeneration and can damage large swaths of habitat
- Warmer average temperatures can decrease survival for species
- Warmer temperatures increase the diseases and pests that can persist on the landscape
- Reduced snowpack and retreating glaciers, causing water shortages
- Loss of suitable habitat as ecoregions migrate northward
- More severe and unpredictable weather can kill off organisms
- People and property in the area are at higher risk

Farr, J. et al. (2025) found that from 2001 to 2023, "the extent of alpine herbaceous meadows has declined by 33% (from 112 km² to 80.7 km²) across an 8,422 km² area of the Rockies"



© Parks Canada

Projected temperature change in Alberta (Compared to 1980s)

	Change by 2030s	Change by 2050s	Change by 2080s
Average daily temperature	↑ 2° C	↑ 2.5° C	↑ 3.5° C

This table shows how much warmer Alberta's average daily temperature is expected to be by the 2030s, 2050s, and 2080s compared to the 1980s.

"The financial impact of climate-related disasters is increasing. In Canada, between 1983 and 2008, the average annual payouts by insurers for catastrophic weather events was \$400 million. That number has risen to nearly \$2 billion annually. This financial cost is increasing rapidly, with 2022 and 2023 ranking within the top ten most costly years on record with total insured losses being \$3.4 and \$3.1 billion, respectively (Statistics Canada 2024)." -The Resilience Institute, Metis Nation Within Alberta

Large-scale Concerns in the Eastern Slopes are in a Positive Feedback Loop with Climate Change

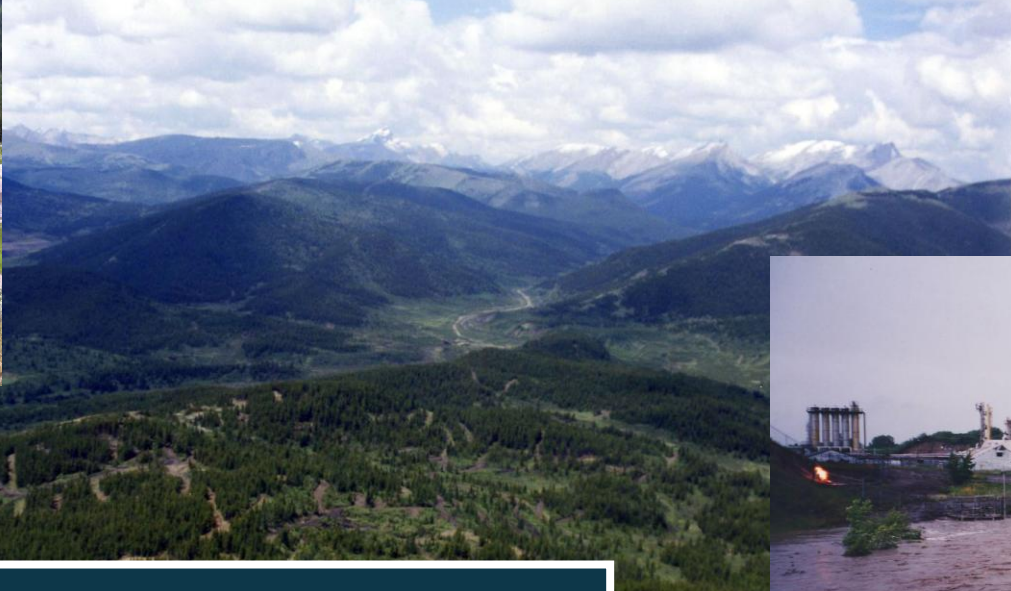
Increased warming, ecosystem change, and natural disasters, and declining intact ecosystems



Lowered ability for landscapes to perform their ecosystem services and reduced carbon capture ability of ecosystems



© C. Campbell



© C. Olson

Cumulative Impacts



© N. Douglas



© A. Ford



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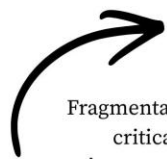
© L. Smandych



Runoff of sediment, loss of overhanging tree cover



Fragmentation of habitat, runoff, critical habitat damage, increased visitation pressure



Destruction and sedimentation of critical habitat



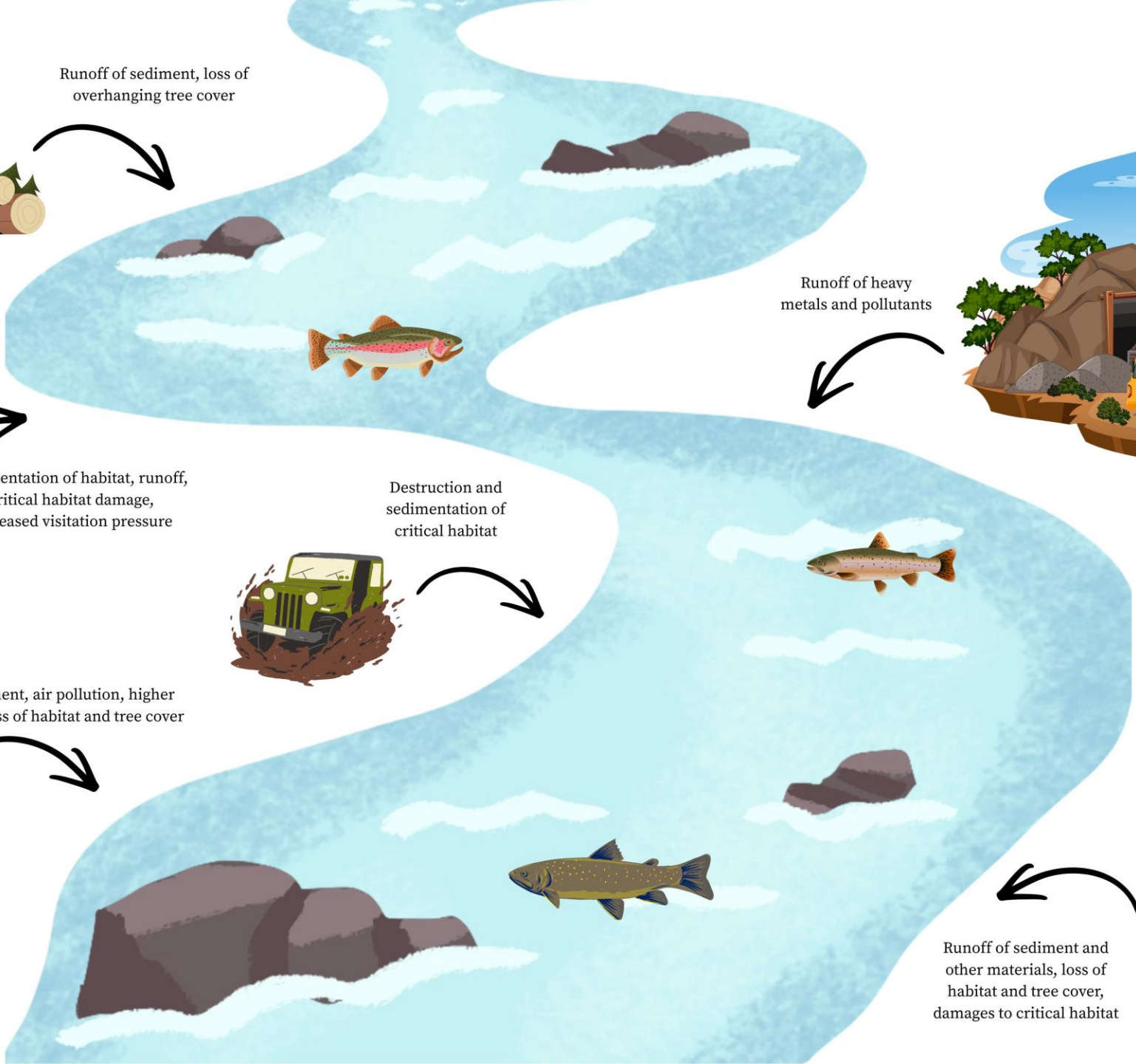
Runoff of sediment, air pollution, higher temperatures, loss of habitat and tree cover



Runoff of heavy metals and pollutants

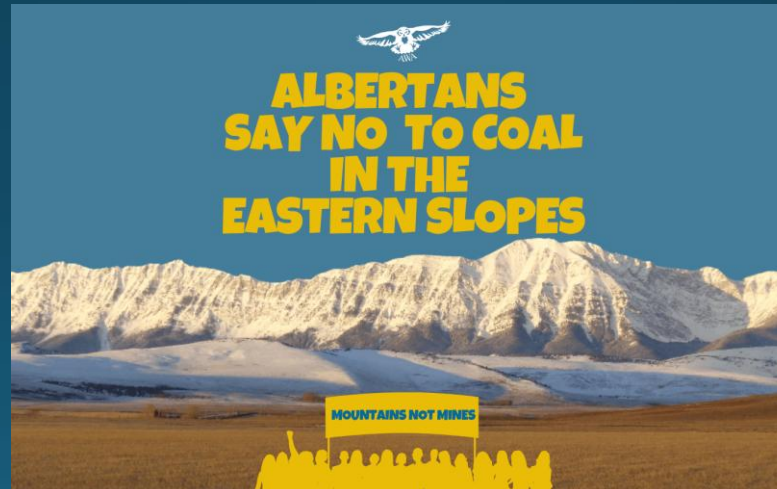
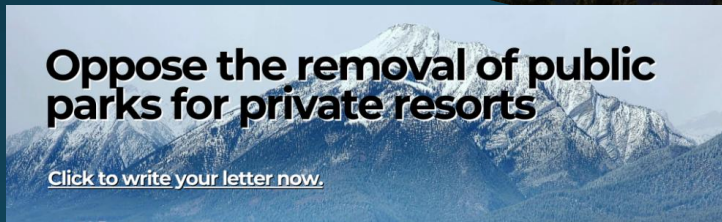


Runoff of sediment and other materials, loss of habitat and tree cover, damages to critical habitat



What are the Solutions?

- Better land-use planning that prioritizes environmental resilience and stakeholder engagement
- Speaking out against decisions that do not benefit people or the environment
- An expanded Parks and Protected Areas network! (More parks = more places for people to enjoy, with less pressure on each one)



P.S. Keep an eye out for AWA's upcoming engagement guides for Alberta's land-use plans and development plans, and have your say on decisions made in the Eastern Slopes

Ghost-Kananaskis Sub-regional Plan Engagement Phase 1

Overview

The Government of Alberta has identified land use planning as a priority, and remains committed to moving forward with sub-regional plans as a key component to manage the province's Crown lands.

In alignment with applicable legislative and regulatory direction, the Ghost-Kananaskis Sub-regional Plan (SRP) will establish guidance for environmental management, recreation, industry, and tourism in the area.

Purpose of sub-regional planning

Sub-regional plans provide direction for an area to support regulatory certainty and policy direction. Currently, policy direction for the Ghost-Kananaskis area is provided by the South Saskatchewan Regional Plan (SSRP), Integrated Resource Plans (IRP), park management plans, Public Land Use Zones, and Kananaskis Recreation Policy. Additional land-use planning initiatives such as the Canmore Area Trails Plan, Tourism Development Zones, All-Season Resorts and Coal Industry Modernization Initiative (CIM) also contribute to current direction of land management. Sub-regional planning provides an opportunity to streamline, consolidate, or archive outdated policies allowing for modernizing land and resource management.

Ghost-Kananaskis Sub-region

The Ghost and Kananaskis sub-region is located west of Calgary along Alberta's eastern slopes in the South Saskatchewan region. The area is a mix of public lands, provincial parks and protected areas supporting recreation and tourism, protection of headwaters, maintenance of biodiversity and other environmental values while also providing opportunities for forestry, grazing, and other natural resource development. The sub-region is located on Treaty 7 land.

Engagement

Engagement opportunities for this planning process are available in two phases.

Phase 1 (current): Feedback on a draft vision and outcomes, while providing an opportunity to identify areas you visit through an interactive mapping tool. Input gathered will be used to help inform development of a draft SRP for the Ghost-Kananaskis area, providing the framework for how the Ghost and Kananaskis sub-regions will be managed into the future.

Phase 2 (anticipated in fall 2026): Feedback on the specific elements of the draft Ghost-Kananaskis SRP, prior to its finalization.

A map of the Ghost and Kananaskis sub-region in Alberta. The map shows the sub-region's location relative to Calgary and the surrounding areas. It includes a legend for various land use zones and a scale bar.

Get Involved With AWA!



- Become a lifetime member
- Sign up for the *Wild Horizons* newsletter
- Volunteer
- Donate
- Join an AWA Event
- Speak up
 - Write to your MLA or MP
 - Add your name to a petition
 - Join a public event
 - Attend a demonstration

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