Alberta Wilderness Association
"Defending Wild Alberta through Awareness and Action"

Chief and Council
Little Red River Cree Nation
PO Box 30
John D'Or Prairie, AB T0H 3X0
Canada
Delivered by email to: council@lrrcn.ab.ca

November 21, 2024

Re: AWA Opposition to Spur Petroleum Ltd.'s Proposed Mikkwa Exploration Project

Dear Little Red River Cree Nation – Chief and Council,

Alberta Wilderness Association (AWA) is writing Little Red River Cree Nation (LRRCN) to express our concerns related to Spur Petroleum Ltd.'s Mikkwa oil and gas exploration project (hereafter "Mikkwa Project") proposed for development in the Harper Creek area. We wish to emphasize we respect and honour your government's right to decide. We are merely writing to share our concerns so you may take them into consideration. We request that you consider opposing this development, given the risk that oil and gas development poses to the local environment and long-term health of the community.

AWA is the oldest Alberta-based environmental conservation group with more than 7,500 members and supporters in Alberta and around the world. AWA seeks the completion of a protected areas network and good stewardship of Alberta's public lands, waters, and biodiversity to ensure future generations enjoy the abundant benefits they provide.

To our knowledge, Spur Petroleum Ltd. is proposing to drill four vertical stratigraphic wells (with associated well-pads and road access) at four separate locations, which they claim will be used for "data collection only and will not be produced."

Our concerns with the proposed Mikkwa Project are summarized in the list below and outlined in greater detail in the following sections of this letter.

Summary of concerns:

1. Ecological significance of Harper area.
2. Potential groundwater impacts from oil and gas development.
3. Potential impacts to at-risk boreal woodland caribou (Red Earth caribou range).
4. Potential impacts to the at-risk Wabasca wood buffalo herd.
5. Abandonment and reclamation issues with oil and gas infrastructure.
6. Contribution to climate change and increased wildfire risk.

1. Ecological significance of Harper area

Sharing its eastern border with Wood Buffalo National Park, Harper's boreal forest landscape is an area of concern for AWA in far northwestern Alberta as it is home to many wildlife species including wood bison (*Bison bison athabascae*) and woodland caribou (*Rangifer tarandus caribou*).

Directly south of the Peace River and east of Fort Vermilion, it encompasses 428km^2 of public lands that includes the Harper Creek Natural Area. Mixed-wood forests, wetlands, limestone caves and oxbow lakes characterize these lowlands. As you are familiar, in addition to common waterfowl species, Harper's boreal forest landscape provides habitat for many wildlife species such as lynx, coyotes, fishers, wolverines and otters.

With the boreal lowlands of Harper having been carved out due to the erosional force of the Peace River, a significant portion of the hydrology of the region is in the form of standing water. These various forms of wetlands and the habitat they provide for wildlife, in addition to ecological services such as water retention and cleansing, is part of what renders regions of Harper's landscape provincially significant.

In addition, the Harper Creek (or Harper Springs) Natural Area has previously been listed as an Environmentally Significant Area of Alberta,[1] and a Key Landscape Area of Interest[2] within the Alberta portion of the boreal forest ecoregion.

2. Potential groundwater impacts from oil and gas development

According to the American Geosciences Institute, there are three ways in which oil and gas wells may contaminate groundwater: 1) if a well leaks into the surrounding environment, 2) if oil or other fluids are spilled at the surface, or 3) if a drilling operations cracks overlying rock formations, then it is possible that oil, gas, or other fluids may move through the rocks and into a groundwater aquifer.[3]

Dasari *et al.* (2024) found that the discharge of industrial waste from oil and gas exploration and extraction resulted in elevated levels of toxic dissolved chemicals in groundwater samples collected around drilling sites. In terms of water quality, they found that: "2% of samples were excellent, 22% were good, 20% were poor, 8% were extremely poor, and 48% were unsuitable for drinking."[4]

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[1] Sweetgrass Consultants Ltd., "Environmentally Significant Areas of Alberta Volumes 1, 2 and 3" (Alberta Environmental Protection, March 1997), https://albertaparks.ca/media/3194487/esa_ab_vol1.pdf.
[2] Kevin Timoney, "An Environmental Assessment of High Conservation Value Forests in the Alberta Portion of the Mid-Continental Canadian Boreal Forest Ecoregion" (World Wildlife Fund and Alberta-Pacific Forest Industries, November 5, 2003).
[3] E. Allison and B. Mandler, "Groundwater Protection In Oil and Gas Production" (American Geosciences Institute, 2018), https://www.americangeosciences.org/sites/default/files/AGI_PE_GroundwaterProtection_web_final.pdf.
[4] Babu Mallesh Dasari et al., "Assessment of Groundwater Quality, Source Identification, and Health Risk around Oil and Gas Drilling Sites," *Environmental Earth Sciences* 83, no. 10 (May 8, 2024): 312, https://doi.org/10.1007/s12665-024-11576-4.

Given the abundance of wetlands in the Harper area and the importance of groundwater for maintaining both the quantity and quality of water within wetlands, the Mikkwa Project risks not only groundwater, but the health and integrity of wetland ecosystems at the surface as well.

3. Potential impacts to at-risk boreal woodland caribou (Red Earth caribou range)

With the Harper area overlapping with a portion of the Red Earth caribou range, which includes both the Birch Mountains and the Red Earth local populations of boreal woodland caribou, we are concerned about the potential impact development could have on the herds.

It has been over twenty years since woodland caribou were first listed as threatened under Schedule 1 of Canada's *Species at Risk Act* (SARA) in 2003. The purpose of SARA is to prevent wildlife species from becoming extinct or extirpated, and to help in the recovery of extirpated, endangered, or threatened species.

Environment Canada published its Recovery Strategy for boreal woodland caribou in 2012 which has since guided AWA's efforts to support the protection of the remaining herds. According to the recovery strategy, critical habitat for boreal caribou is identified as: "i) the area within the boundary of each boreal caribou range that provides an overall ecological condition that will allow for an ongoing recruitment and retirement cycle of habitat, which maintains a perpetual state of a minimum of 65% of the area as undisturbed habitat; and ii) biophysical attributes required by boreal caribou to carry out life processes."[5]

This means that caribou populations require a minimum of 65 percent of the habitat within their range to be undisturbed to have a 60 percent chance of becoming self-sustaining. However, according to Government of Alberta data published in May 2024, habitat disturbance has increased within the Red Earth caribou range by 4 percent to a total of 78.6 percent disturbed since 2010.[6]

While it is currently unclear whether the proposed well-pads, roads, and other infrastructure associated with the Mikkwa Project will result in further losses of undisturbed caribou habitat within the Red Earth range, there are potential negative impacts from this development to at-risk caribou populations in the region.

4. Potential impacts to the at-risk Wabasca wood buffalo herd

One of our primary concerns for development in the region is the Harper area being home to the Wabasca herd of wood bison, the extremely small herd of disease-free wood bison that are genetically distinct from bison within the adjacent Wood Buffalo National Park. A news story from the Narwhal published in January 2023 claims that the herd has "as few as nine bison remaining,"[7] while personal communications with local representatives say that the herd is as small as six or seven individuals.

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[5] Environment Canada, "Recovery Strategy for the Woodland Caribou (*Rangifer Tarandus Caribou*), Boreal Population in Canada" (Ottawa, 2012).

[6] Government of Alberta, "Report on the Implementation of the Section 11 Agreement for the Conservation and Recovery of the Woodland Caribou in Alberta: 2022-2023," May 21, 2024.

[7] Drew Anderson and 2023 8 Min Read, "Imminent Logging Threatens Alberta's Rare Bison Herd," *The Narwhal*, January 23, 2023, sec. News, https://thenarwhal.ca/wabasca-bison-habitat-logging-alberta/.

According to Environment and Climate Change Canada's (ECCC) Imminent Threat Assessment for Wood Bison,[8] the three main threats to the Wabasca herd are: i) unregulated harvest, ii) disease transmission, and iii) resource development – including increased access (i.e., roads and other linear disturbances). These threats were deemed to require immediate intervention to ensure the survival and recovery of the Wabasca herd.

The Harper area overlaps with the Government of Alberta's Wildlife Management Unit #540, which was designated as the Wabasca Bison Protection Area in 2021.[9] This designation was implemented by the Government of Alberta to: "provide additional protection for a small and declining population from all Indigenous and non-Indigenous hunting," with conservation listed as the immediate priority to "ensure the survival of this small, disease-free population" of wood bison.

Despite the Imminent Threat Assessment and the implementation of Alberta's Bison Protection Area, it does not seem like many other actions have been taken at the federal or provincial levels to protect and recover the Wabasca herd. We are aware of LRRCN's ongoing stewardship of the bison, as well as additional community groups. However, as the population has declined from 16 individuals in 2019 (according to ECCC) to less than 10 in 2024 we are concerned of how further development may jeopardize the herd's chance of survival.

As increasing disturbance has been identified as one of the three primary threats to the Wabasca herd, the proposed Mikkwa Project increases the risk of extirpating this genetically distinct, disease-free population of wood bison.

5. Abandonment and reclamation issues with oil and gas infrastructure

Inactive and unplugged wells can leak harmful pollutants into the surrounding environment (e.g., soil, air, groundwater). The Government of Alberta and the Alberta Energy Regulator (AER) have an abysmal record when it comes to enforcing cleanup obligations for inactive and/or abandoned oil and gas infrastructure which continues to hurt both ecosystems and communities across the province. As things currently stand, Alberta does not have strict and/or enforceable time limits for abandonment and reclamation.

An October 2023 report from the University of Calgary's School of Public Policy describes Alberta's policy on inactive oil and gas wells as a "massive regulatory failure characterized by a historical lack of transparency, excessive regulatory discretion, and regulatory capture."[10]

As of July 2023, there are approximately 230,000 drilled wells in the province that need to be abandoned and reclaimed, with an additional 90,000 other wells that have already been abandoned but are still not reclaimed. That's 320,000 wells total that need to be reclaimed and the

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[8] Environment and Climate Change Canada, "Imminent Threat Assessment for Wood Bison," assessments, February 25, 2021, https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/related-information/threat-assessment-wood-bison1.html.

[9] "Wood Bison Status Changes in Alberta" (Government of Alberta, November 2021), https://open.alberta.ca/dataset/7e7a3c4e-f2a6-4b21-b329-8d8cebc5ea34/resource/1203bf27-fdec-4b97-a5bc-50fe2d77a6d6/download/aep-wood-bison-status-changes-2021-11.pdf.

[10] Drew Yewchuk, Shaun Fluker, and Martin Olszynski, "A Made-in-Alberta Failure: Unfunded Oil and Gas Closure Liability," *The School of Public Policy Publications*, October 11, 2023, Vol. 16 No. 1 (2023), https://doi.org/10.11575/SPPP.V16I1.77468.

numbers reported likely underestimate the true size of the problem. Official — yet, likely unreliable — closure liability estimates are at least $60 billion, but in 2018, internal estimates from the AER were leaked to the public, claiming that the real number was closer to $130 billion.

Using just the lower number of $60 billion, the AER currently holds less than $295 million in closure liability security, which would be only 0.49 percent of the total estimated reclamation costs. Less than one percent.

Essentially, almost all this closure liability is currently unfunded. That's because Alberta has failed to require oil and gas licensees to post adequate security to cover these costs or neglected to use other financial tools to ensure that funding will be available so that industry can cover the cost of reclamation.

While Spur Petroleum Ltd. claims that "the wells will be abandoned immediately after drilling and the locations will be reclaimed," Alberta does not have a trustworthy record of ensuring that proponents meet their cleanup obligations.

6. Contribution to climate change and increased wildfire risk

Human-caused greenhouse gas (GHG) emissions are the primary driver of global climate change, and the combustion of fossil fuels (such as coal, oil, and gas) is responsible for 90% of those emissions.

While Canada has committed to reducing national GHG emissions, since 2005, emissions have only dropped by 7.1 percent, far less than the 40 to 45 percent reduction by 2030 agreed under the 2015 Paris Agreement. While emissions in other sectors have dropped since 2005, oil and gas emissions have grown by at least 11 percent.

Current evidence suggests that to achieve these climate targets, we must:

A. Leave all known fossil fuel reserves in the ground.[11]
B. Halt all new and proposed fossil fuel projects,[12] and
C. Prematurely close at least half of all existing fossil fuel production facilities.[13]

This means that increasing production or investing in the construction of new wells, mines, pipelines, or other infrastructure is incompatible with meeting international climate targets.

Climate change makes natural disasters like drought, floods, wildfires, hurricanes, and hailstorms more frequent and more severe. Recent findings show that 37 percent of the area burned across Canada and the United States from 1986 to 2021 was linked to emissions from 88 fossil fuel

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[11] Dan Welsby et al., "Unextractable Fossil Fuels in a 1.5 °C World," *Nature* 597, no. 7875 (September 2021): 230–34, https://doi.org/10.1038/s41586-021-03821-8.
[12] Fergus Green et al., "No New Fossil Fuel Projects: The Norm We Need," *Science*, May 31, 2024, https://doi.org/10.1126/science.adn6533.
[13] Kelly Trout et al., "Existing Fossil Fuel Extraction Would Warm the World beyond 1.5 °C," *Environmental Research Letters* 17, no. 6 (May 2022): 064010, https://doi.org/10.1088/1748-9326/ac6228.

companies and cement manufacturers.[14] In 2023, Canada had its worst wildfire season on record,[15] and 2024 has officially become the costliest year in Canadian history for insured losses due to severe weather events – costing over $7.7 billion in damages.[16] And according to the Alberta Biodiversity Monitoring Institute, at least 750 km^2 burned within the Red Earth caribou range due to wildfires in 2023.[17]

Oil and gas exploration is typically conducted with future production in mind. And since increasing oil production means increasing emissions, it will therefore lead to an increased risk of climate-related impacts such as wildfire. As a result, AWA believes it is inappropriate to be approving new oil and gas projects, even at the exploratory stage, as there is an urgent need to minimize any potential further harmful impacts of climate change and related natural disasters.

Concluding Remarks

As a result of the many environmental risks listed above, AWA is requesting LRRCN Chief and Council consider opposing the Mikkwa Project proposed by Spur Petroleum Ltd., as well as any future oil and gas developments that may be proposed by other proponents within the Harper region.

If you have any questions or concerns about the feedback included in this letter, please don't hesitate to get in touch with AWA directly by email or by phone.

Sincerely,
ALBERTA WILDERNESS ASSOCIATION

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[14] Benjamin Shingler, "Rise in Extreme Wildfires Linked Directly to Emissions from Oil Companies in New Study," *CBC News*, May 24, 2023, https://www.cbc.ca/news/canada/wildfires-climate-change-carbon-88-1.6852178.
[15] Magan Carty, "World on Fire: 2023 Is Canada's Worst Wildfire Season on Record — and It's Not over Yet," *CBC Radio*, September 4, 2023, https://www.cbc.ca/radio/ideas/world-on-fire-canada-s-worst-wildfire-season-on-record-1.6946472.
[16] "Insured Losses Top $7B Making This Summer Canada's Most Destructive Season," *CBC News*, September 25, 2024, https://www.cbc.ca/news/canada/edmonton/insured-losses-top-7b-making-this-summer-canada-s-most-destructive-season-1.7333673.
[17] David Huggard, "Effects of 2023 Fires in Alberta: Supplementary Report" (Alberta Biodiversity Monitoring Institute, 2023).

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