



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

November 5, 2024

Alberta Energy Regulator
Suite 1000, 250 – 5 Street SW
Calgary, AB T2P 0R4

Dear Panel of Hearing Commissioners appointed to Proceeding ID 444,

RE: Proceeding ID 444 – Northback Holdings Corporation AER Application Nos. A10123772, 1948547, 00497366.

Please accept this as the written submission of Alberta Wilderness Association (AWA) discussing the issues associated with the applications submitted by Northback Holdings Corporation (Northback), AER's jurisdictional responsibilities within this matter and other coal proceedings, and the written submission provided by Northback for the public hearing.

AWA remains opposed to Northback's applications, both in terms of their content and their acceptance for review by the AER. AWA continues to request that the AER reject Northback's applications.

After reviewing the relevant legislation and applicable regulations, AWA submits that the applications are incomplete, and that Northback's submission¹ contains details irrelevant to the proceedings ahead. Further, AWA has summarized the findings of recent peer-reviewed research to better inform the Panel on the environmental and health impacts related to the coal industry.

Submission

In order to enter on and occupy public land to conduct their coal exploration program (CEP), Northback requires authorization from a director or officer under section 20(1)(e) of the *Public Lands Act* (PLA)². Without this authorization, section 54(1) of the PLA prohibits the damage or destruction of land in all manners, including any activities that could excavate material, involve structures, accumulate waste, injure the watershed, or contribute to soil erosion.

Section 20(3) states that in the event that any authorization's terms and conditions conflict with any applicable Regional Plan under the *Alberta Land Stewardship Act* (ALSA), the ALSA Regional Plan prevails³. The management of the public lands with the proposed project site are informed by the *South Saskatchewan Regional Plan*, and more specifically, the subregional *Livingstone-Porcupine Hills Land Footprint Management Plan* (LMFP)^{4,5}. The plan sets out disturbance limits for open motorized access (0.4 km/km²), restricted motorized access (0.6km/km²), and near-stream motorized access (0.04 km/km²), among other management thresholds. These are to be enforced by

¹ Northback Holdings Corporation. 2024. Alberta Energy Regulator: Proceeding ID 444. Written Submission of Northback.

² [Public Lands Act](#), RSA 2000, c P-40.

³ [Alberta Land Stewardship Act](#), SA 2009, c A-26.8.

⁴ Land Use Secretariat. 2018 (amended). [South Saskatchewan regional plan 2014 – 2024: an Alberta Land-Use Framework integrated plan](#). Edmonton.

⁵ Environment and Parks. 2018. [Livingstone-Porcupine Hills land footprint management plan](#). Edmonton.

the relevant “departments and agencies through the regulatory system”, including the AER⁵. Despite almost half of the 25 proposed drillholes being located on public lands (Figure 1), Northback’s applications lack any mention or discussion of compliance with such thresholds, indicating the applications are incomplete.

Section 3.3.2 of the Livingstone-Porcupine Hills LMFP identified an action required to be completed by the AER and Alberta Environment and Parks, now Environment and Protected Areas (AEPA), within three years of the plan’s publication, relevant to this discussion. The Government of Alberta committed to reviewing the coal categories of the South Saskatchewan region and developing a strategy by 2021 that would provide new direction based on the “best and most recent biodiversity sensitivity data” to “specify where surface exploration and development can and cannot occur”, in recognition of the need to update aging resource policies⁵. The strategy would have superseded the existing coal categories, and its absence is keenly felt here – the AER and AEPA’s failure to undertake this action as identified in the Livingstone-Porcupine Hills LMFP has created unnecessary confusion around appropriate and sustainable land-uses within the Eastern Slopes.

Northback’s submission for the public hearing argues that because they have “invested substantial resources”, “incurred significant expense..., having spent approximately \$1 billion since 2015”, and “also invested heavily in the local community”, this justifies the CEP as in the public interest, and that the required permissions be approved¹. However, Section 54(5) if the PLA makes clear that “no

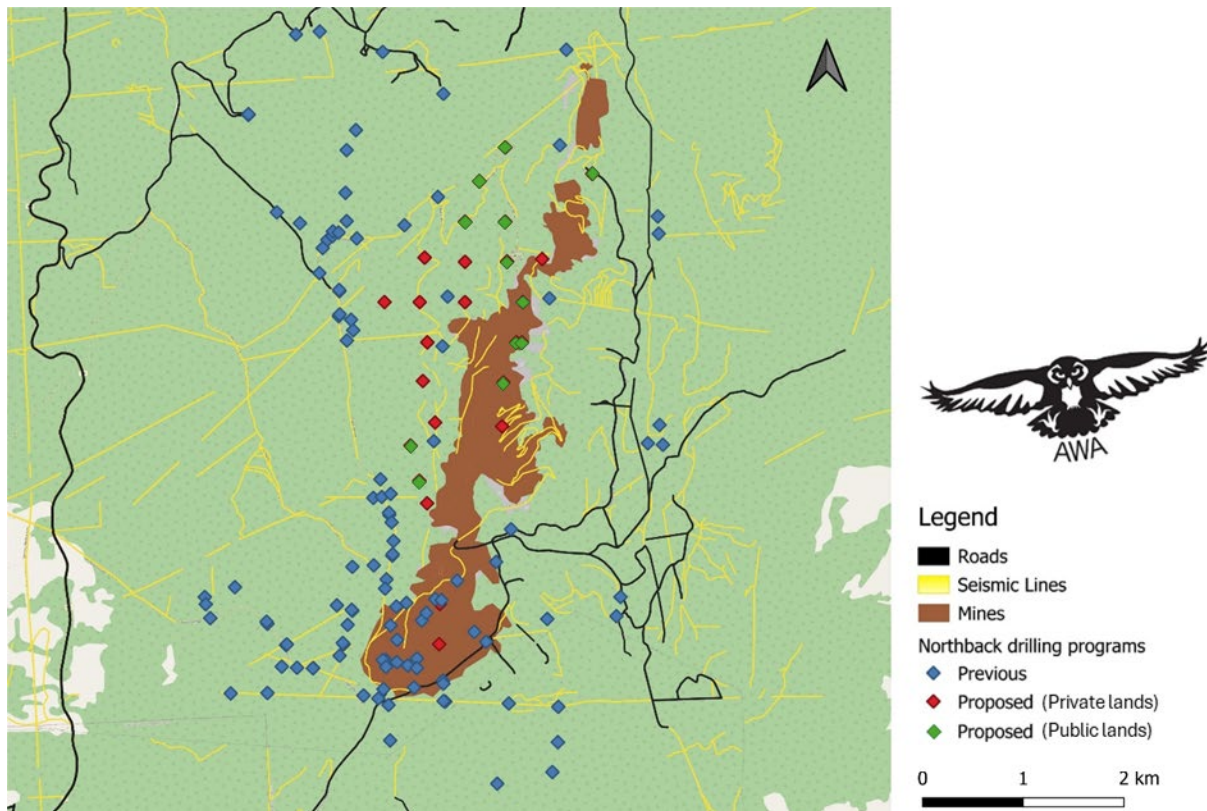


Figure 1: Past (blue diamonds) and proposed (red and green diamonds) exploration drillholes by Northback Holdings Corporation and associated predecessors. The map depicts the extent of current exploration disturbance on Grassy Mountain, alongside the historical mine footprint. Drillhole coordinates were retrieved from Northback and Benga Mining Ltd. applications to the AER^{7,12}. Drillholes from historical exploration efforts in the 70’s were not included. Other disturbance data acquired from the Alberta Biodiversity Monitoring Institute’s 2021 Human Footprint Inventory. Prepared by Alberta Wilderness Association on QGIS 3.32.1. Projection: NAD83/UTM Zone 11N.

person shall provide ... money or other consideration for the purpose of gaining or allowing access to, passage on or over or use of public land”². Northback’s costs associated with advancing the project are not relevant for AER’s considerations; they are a standard risk any company must take to develop proposals. Any perceived lack of return on investments is wholly the onus of the proponent.

Northback also must abide by *Manual 008: Oil Sands and Coal Exploration Guide*. Manual 008 states that CEPs have a term of five years: two to complete exploration and three years to reclaim the disturbances caused by exploration⁶. Benga Mining Ltd., another subsidiary of Riversdale Resources Limited/Hancock Prospecting Pty Ltd. and Northback’s predecessor, originally conducted exploration work on Grassy Mountain from 2013-2016. Accordingly, all reclamation of this disturbance (drill pads, seismic lines, roads, water crossings) should have been completed by 2018.

While initially intending to “drill at 26 new pad locations, ... construct 3,095 m of new trail” and use “10 new watercourse crossings”, after two rounds of revisions required by the AER, Northback’s proposal now states that “100% of drilling access will be on existing roads and no tree clearing will be required. Further, 100% of drill pads will be on previously disturbed lands”⁷. With 12 proposed drill sites on public lands, many use the same roads and seismic lines associated with past exploration efforts, indicating that Northback’s predecessor did not fulfill their previous reclamation requirements to the site under Manual 008 (Figure 1). Considering these are the same proponents, this is a worrisome precedent, casting doubt on their recent commitments to reclaim Grassy Mountain should their current applications be approved.

The *Coal Conservation Act* (CCA) states that any operation undertaken through permits or licenses issued under the Act “does not relieve a person from the requirements or liabilities arising under any other Act or otherwise” (Section 22)⁸. Further, for all permissions obtained under the PLA, it is mandatory under the Act’s *Master Schedule of Standards and Conditions* that “disposition holders must comply with all applicable federal Critical Habitat Orders issued under section 58 of the *Species at Risk Act*” (SARA), and “proponents and disposition holders should contact Fisheries and Oceans Canada (DFO) in relation to the application of the [SARA] and any relevant Critical Habitat Orders”⁹.

On November 20, 2015, a critical habitat Protection Order was issued under the SARA for the Westslope Cutthroat Trout (WSCT), “which triggers the prohibition against the destruction of any part of the critical habitat. The prohibition will apply to anyone undertaking activities in and around the Westslope Cutthroat Trout, Alberta population, critical habitat that would result in the destruction of any part of it”¹⁰.

The Protection Order classified Gold Creek and its tributaries as critical habitat, which are located within Northback’s proposed project site. Key threats identified in the order are any “changes in water flow, sedimentation, or habitat loss, fragmentation and habitat alteration”. It also provided “examples of activities likely to destroy critical habitat of this species”, which “include mining, ... or linear disturbance”¹⁰. Under SARA, “a person who, without a permit, carries out an activity that

⁶ Alberta Energy Regulator. 2014. [Manual 008: Oil Sands Exploration and Coal Exploration Application Guide](#). Calgary.

⁷ Northback Holdings Corporation, correspondence with AER. 2023. RE: Northback Holdings Corporation (Northback) Deep Drill Permit Application No. 1948547 Supplemental Information Request 1 (SIR1).

⁸ [Coal Conservation Act](#), RSA 2000, c C-17.

⁹ Forestry and Parks. 2024. [Master schedule of standards and conditions](#). Edmonton.

¹⁰ Minister of Fisheries and Oceans Canada. 2015. [CRITICAL HABITAT OF THE WESTSLOPE CUTTHROAT TROUT \(ONCORHYNCHUS CLARKII LEWISI\) ALBERTA POPULATION ORDER](#). Ottawa.

contravenes one of the prohibitions under SARA, commits an offence”, including prohibitions against destruction of critical habitat¹¹. Northback’s proposed CEP includes six watercourse crossings (Figure 2) over WSCT critical habitat, and because water crossings and roads can be a source of pollution and sedimentation in aquatic habitats, the CEP is incomplete without the appropriate permitting from the DFO¹⁰.

Watercourse Crossings that Overlap Westslope Cutthroat Trout Critical Habitat in Northback Holdings’ Deep Drilling Permit Applications

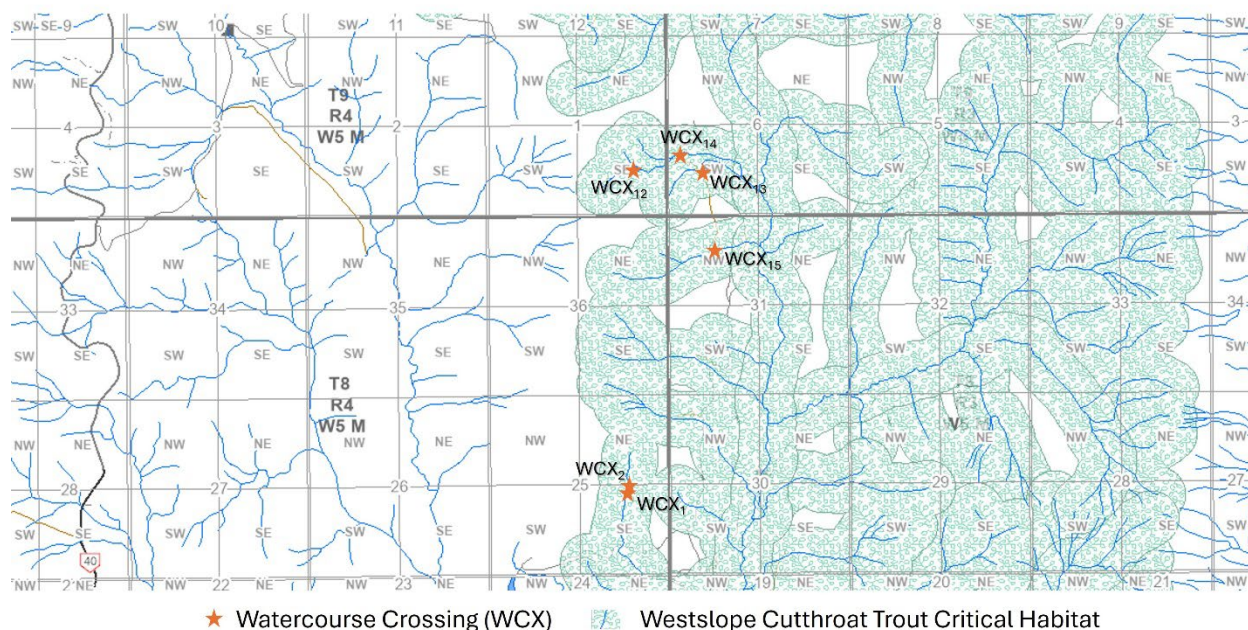


Figure 2: Six watercourse crossings listed in the deep drilling permit applications of Northback Holdings cross critical habitat of the Westslope Cutthroat Trout. These include watercourse crossing 1, 2, 12, 13, 14, 15. There is no indication within the supplementary information requests provided to the AER whether the amendments reducing the number of drill holes will impact how many watercourse crossings are still required.

Northback argues that the “applied-for exploration program is necessary to obtain additional information related to potential development opportunities within Northback’s coal lease area”⁵. Citing the CCA’s statutory purpose “to provide for the appraisal of Alberta’s coal resources”, Northback argues that the CEP is necessary to “quantify Alberta’s resources”^{1,8}. However, 517 drill holes were bored through a cumulative 60,000 metres of mountain over 5 different exploration programs between 1970 to 2016, after the area had already endured 55 years of surface and underground mining¹²; at what threshold does the AER consider a resource sufficiently appraised? And if further “understanding” of Grassy Mountain’s coal deposits by Northback is required now, why were their predecessor and parent companies confident and willing to put forth a full mine proposal previously? It is unclear how it is “orderly, efficient, and economic” to permit further exploration by proponents whose past efforts were deemed inadequate on numerous occasions by multiple jurisdictions⁸.

¹¹ [Species at Risk Act](#), SC 2002, c 29.

¹² Riversdale Resources. 2016. Benga Mining Limited, Grassy Mountain Coal Project, Section B: Geology and Geotechnical Report.

Section 8.1(2) of the CCA requires the Regulator to reject any “permit, licence or approval or an amendment of a permit, licence or approval” that is not in the public interest⁹. There are few occasions where public interest is so clear; in the spring of 2021, nearly 25,000 people in Alberta participated in a government survey on provincial coal policy, where an overwhelming 90% agreed coal development (inclusive of exploration) should be restricted from the Eastern Slopes, with the majority citing environmental impacts as the most important issue informing their opinion^{13,14}. As noted in AWA’s original statement of concern, AER also already acknowledged a coal mine on Grassy Mountain “is not in the public interest” when it previously denied Benga Mining Ltd.’s applications¹⁵. Despite this, Northback has indicated that a commercial mine is their ultimate goal and used it as justification within their applications:

“The applied-for exploration program is necessary to obtain additional information related to potential development opportunities within Northback’s coal lease area... if the Applications are approved, the likelihood of Northback proceeding with an application for a commercial mine development increases substantially”¹.

Northback’s stresses that “all concerns relating to coal development generally, or a full commercial mine development, are beyond the scope of the Applications and should be given no consideration”, while also maintaining that “the AER must, before deciding on the Applications, take into account the potential loss of the chance to assess a commercial mine application and the significant economic benefits likely associated with that development”¹. Both of these statements cannot be true at once.

If the AER is considering the Northback’s applications in isolation, then it must be recognized that what is being proposed is a “localized, temporary and short” exploration project on an already extensively explored mountain, by a proponent who has not reclaimed their past efforts¹⁶. Expected to last “105 days”, the “short-term” nature of the project means any economic or employment benefits to the local communities similarly will be temporary¹⁶. Exploration is the costly phase of resource development. It requires significant investment and is a well-known barrier to getting mines operational. It does not make money; the assumption is that costs will be recouped during the extractive stage. Accordingly, any arguments promoting the socio-economic benefits of Northback’s project outside of the application’s scope should not be considered during the public hearing.

If the AER wants to account for the potential loss of economic benefits from a commercial mine (which recent cost-benefit analysis have estimated to be minimal at best¹⁷), then it must also consider the significant loss in value of ecosystem benefits and services and negative impacts to human health and associated costs for treatment, should a commercial mine be developed.

¹³ Coal Policy Committee. 2021. [Engaging Albertans about coal](#).

¹⁴ Coal Policy Committee. 2021. [Final Report: recommendations for the management of coal resources in Alberta](#).

¹⁵ Alberta Energy Regulator. 2021. [News Release 2021-06-17: Joint review panel concludes review of Grassy Mountain Coal project](#).

¹⁶ Legal council to Northback Holdings Corporation, correspondence with AER. 2024. RE: Northback Holdings Corporation ("Northback") Application Nos. #A10123772, #00497386-001 and #1948547 (together, the "Applications") Statement of Concern ("SOC") Review Process.

¹⁷ Winter, J., et al., 2021, [A Multiple Account Benefit-Cost Analysis of Coal Mining in Alberta. The School of Public Policy Publications](#). University of Calgary. 1-97.

Among all the concerns well-outlined during the Joint Review Panel process¹⁸, numerous research articles have come out in recent years demonstrating that environmental pollution and negative health impacts from coal are more extensive, pervasive, and damaging than previously thought. Concisely,

“All phases of the coal use continuum (mining, processing, combustion, and waste disposal) create adverse public health and environmental impacts. Public health impacts include cancer, cardiovascular disease, respiratory disease, kidney disease, mental health problems, adverse birth outcomes, impaired child development, and others.”¹⁹

These negative health outcomes will be felt most acutely by the communities nearest and downstream the mines, who will bare increased rates of disease, among other reduced social outcomes:

“Evidence of increased prevalence of chronic diseases and poor self-reported health status was reported in the mining communities. Relationship breakdown and poor family health, lack of social connectedness and decreased access to health services were also reported. Changes to the physical landscape; risky health behaviours; shift work of partners in the mine industry; social isolation and cyclical nature of ‘boom and bust’ activity contributed to poorer outcomes in the communities.”²⁰

They will also be associated with substantial healthcare-related expenses; in 2014-2015, cancer costs alone for the province were estimated to be almost \$500 million, with lung and hematologic cancers found to be the costliest²¹. Albertans with cardiovascular diseases incurred \$5.5 billion in total health care costs in their first year of treatment, according to health data between 2012 and 2016²².

The economic benefits of a commercial coal mine are further outweighed by the costs associated addressing its subsequent environmental degradation. Recent research has demonstrated that coal mine sites continue to pollute long after operations cease; elevated levels of selenium continue to be detected downstream of Tent Mountain, which was suspended in 1983²³. The underground adits of Grassy Mountain, abandoned back in the 70s, have been periodically discharging iron, various metals, and suspended sediment for decades²³.

On the Western Slopes of the Rocky Mountain’s in BC’s Elk Valley, chemical leaching into the surrounding watershed from commercial mines has been an issue since their onset. Despite the company responsible having spent more than \$1.4 billion dollars to address high concentrations of toxic contaminants, recent research finds that elements like selenium are continuing to accumulate

¹⁸ Environment and Climate Change Canada and the Alberta Energy Regulator. 2021. [Report of the Joint Review Panel: Benga Mining Limited Grassy Mountain Coal Project](#). Crownsnest Pass.

¹⁹ Hendryx, M., Zullig, K. J., & Luo, J. 2020. [Impacts of Coal Use on Health](#). Annual Review of Public Health, 41(Volume 41, 2020), 397–415.

²⁰ Mactaggart, F., McDermott, L., & Tynan, A. 2016. [Examining health and well-being outcomes associated with mining activity in rural communities of high-income countries: A systematic review](#). Australian Journal of Rural Health.

²¹ Sam, D., & Cheung, W. Y. 2019. [A population-level comparison of cancer-related and non-cancer-related health care costs using publicly available provincial administrative data](#). Current Oncology, 26(2), 94.

²² Tran, D. T., Palfrey, D., & Welsh, R. 2021. [The Healthcare Cost Burden in Adults with High Risk for Cardiovascular Disease](#). PharmacoEconomics - Open, 5(3), 425–435.

²³ Cooke, C. A., Emmerton, C. A., & Drevnick, P. E. 2024. [Legacy coal mining impacts downstream ecosystems for decades in the Canadian Rockies](#). Environmental Pollution, 344, 123328.

in the environment. Expanded coal operations have led to a 95 percent increase in selenium, a 76 percent increase in nitrate, and 38 percent increase in sulfate concentrations in the Kooconusa, a transboundary reservoir between Canada and the USA²⁴. Increased concentrations of these chemicals can cause nutrient and food-chain imbalances in the aquatic ecosystem, and migration interruptions, reproductive deformities and failure, and extirpation of species within affected watersheds. Food harvested in areas affected by the mines is also higher in selenium than areas unaffected and can pose potential health affects if consumed too frequently²⁵. Researchers have also found that selenium is capable of long-range transport; in the Columbia River system it was detected up to 575 river kilometres downstream from the Elk Valley mines, flowing through aquatic ecosystems in Montana, Idaho, and Washington²⁶. In comparison, the distance from the headwaters of the Oldman River to its confluence with the South Saskatchewan River is 440 km²⁷, meaning these contaminants have the potential to flow well past the municipality of Taber, and could affect an estimated 210,000 people living within the Old Man watershed.

While negative impacts to watersheds downstream of commercial coal mines has been well documented, researchers recently have found that coal dust is a significant source of atmospheric pollution to ecosystems downwind as well. Fugitive coal dust from the Elk Valley coal mines in British Columbia has been found polluting remote and otherwise pristine subalpine lakes and contaminating snowpack across Alberta's Eastern Slopes^{28,29}. Containing high concentrations of carcinogens like polycyclic aromatic compounds (PACs), the dust travels as fine particulate matter in the atmosphere and deposits across a vast range, detected in some locations more than 50 km away from the source²⁸. Wind patterns suggest that high depositions of PACs are occurring within protected and well-loved areas like Peter Lougheed Provincial Park²⁸. Researchers found locations where chemical concentrations and contaminants far exceed tolerable guidelines, with some samples comparable or even at times worse than levels within ecosystems impacted by Alberta's oil sands mines^{28,29}. With more than 70 percent of the Oldman basin's water supply derived from annual snowpack, the implications are serious³⁰. The Eastern Slopes are host to Southern Alberta's water stores and headwaters; melting snowpack, along with glaciers, mountain lakes and streams all drain eastward, supplying the whole of South Saskatchewan River Basin (SSRB), a highly populated and intensively used watershed.

²⁴ Storb, M. B., Bussell, A. M., Caldwell Eldridge, S. L., Hirsch, R. M., & Schmidt, T. S. 2023. [Growth of Coal Mining Operations in the Elk River Valley \(Canada\) Linked to Increasing Solute Transport of Se, NO₃⁻, and SO₄²⁻ into the Transboundary Kooconusa Reservoir \(USA–Canada\)](#). *Environmental Science & Technology*, 57(45), 17465–17480.

²⁵ Ramboll Americas Engineering Solutions. 2023. [Second revised final human health risk assessment supporting the Elk Valley Water Quality Plan](#). Report prepared for Teck Coal Limited.

²⁶ Foster, M. J., Storb, M. B., Blake, J. M., Schmidt, T. S., Nustad, R. A., & Bussell, A. M. 2024. [Evidence of Long-Range Transport of Selenium Downstream of Coal Mining Operations in the Elk River Valley, Canada](#). *Environmental Science & Technology Letters*, 11(8), 856–861.

²⁷ Koning, C.W., Saffran, K.A., Little, J.L., & Fent, L. 2006. [Water quality monitoring: the basis for watershed management in the Oldman River Basin, Canada](#). *Water Science & Technology*. 53(10), 153-161.

²⁸ Cooke, C. A., Holland, K. M., Emmerton, C. A., Drevnick, P. E., Criscitiello, A. S., & Newton, B. (2024). [Mountaintop Removal Coal Mining Contaminates Snowpack across a Broad Region](#). *Environmental Science & Technology*, 58(26), 11718–11726.

²⁹ Cooke, C. A., & Drevnick, P. E. (2022). [Transboundary Atmospheric Pollution from Mountaintop Coal Mining](#). *Environmental Science & Technology Letters*, 9(11), 943–948.

³⁰ Byrne, J., Kienzle, S., Johnson, D., Duke, G., Gannon, V., Selinger, B., & Thomas, J. (2006). [Current and future water issues in the Oldman River Basin of Alberta, Canada](#). *Water Science and Technology: A Journal of the International Association on Water Pollution Research*, 53(10), 327–334.

The Alberta government recommends that to maintain healthy aquatic ecosystems, a river must retain 85% of its natural flow, known as the instream flow needs³¹. With the exception of the Red Deer River, all of the SSRB’s major sub-basins have been overallocated – their average natural flow is no longer sufficient to sustain both the instream flow needs of the river, and the human demands for water. Water has been licensed out of the Oldman and Bow Rivers to a point that even the Water Conservation Objectives (WCOs), which are less stringent thresholds water managers aim to retain in overallocated watersheds, are regularly not being met (Figure 3). In 2023 and 2024, annual demand from licensed water users alone exceeded supply in the Oldman (Figure 3). The Water Sharing Agreements put in place during drought preparations, which greatly reduced the volumes used by major water license holders, were also insufficient to meet the combined demand.

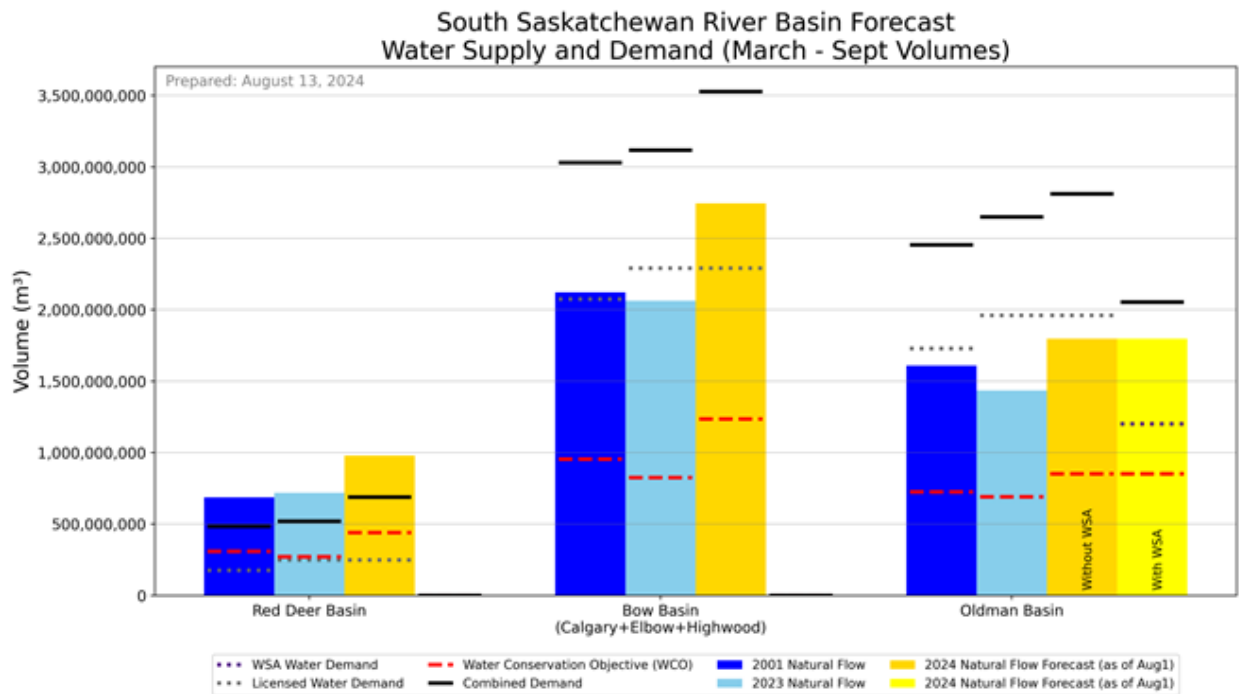


Figure 3: The demand from water license users and the volumes required to meet the province's Water Conservation Objectives exceed the annual natural flow of most major tributaries in the South Saskatchewan River Basin. Figure provided by Alberta Environment and Protected Areas, Strategic and Integrated Services, Engagement and Indigenous Initiatives division in September 2024.

As a regulatory body responsible for issuing and approving water license applications and transfers, the AER is implicated in the protection of Alberta’s water basins. According to the *Water Act* Section 66(3)(b), the Director “may consider any existing, potential or cumulative effects on the aquatic environment” before issuing a Temporary Diversion License (TDL), and AWA urges the AER do so with this context; the SSRB is overallocated, and while new water licenses cannot be issued in these watersheds, it is also evident that permanent or temporary water license transfers, particularly so early along river, are not a viable solution either if Alberta is ever to restore the instream flow needs of the SSRB and ensure its long-term resilience.

³¹ Alberta Environment. 2011. [Water For Life: A Desk-top Method for Establishing Environmental Flows in Alberta Rivers and Streams](#). Edmonton.

While Northback's current proposal requests 1500 m³ of water, their previous applications for a commercial mine development required almost 375,000 m³ in permanent and temporary licensed allocations³². Mining is considered a consumptive use of water, creating tailings contaminated with heavy metals and chemicals that cannot be returned to the river – this represents volumes of water lost from an already overused river system. The presence of tailings on the landscape also creates additional threats, as the risk of contaminating nearby waterbodies increases. This is evident from the numerous incidents in recent years reported on the AER compliance dashboard that have occurred at existing operations whereby coal wastewater was discharged into the environment when storage ponds failed, flooded, or were inadvertently drained.

Conclusion

Based on a review of the applicable legislation, Northback's current applications do not address the necessary legal requirements. As Northback has indicated in their submission, if the AER chooses to approve their applications, it is likely they will try to develop a commercial coal mine. This means that a potential impact of issuing Northback's requested CEP, TDL, and Deep Drilling Permit in the near term will result in a full commercial development later, associated with all the negative environmental and human health impacts discussed here, which is not in the public interest. Further, the extent of the transboundary pollution from the Elk Valley Coal mines must also inform the AER's decision. Although outside of the AER's jurisdiction, this previously unknown threat impacts the ecosystems and populations along the Eastern Slopes and across Southern Alberta's watersheds. Considering all the pressures the SSRB is already under, it is unacceptable to incur additional and unnecessary pollution or potential use at the basin's headwaters. All of the research presented here indicates that the impacts of coal mining are far from localized. It challenges the AER's basis for determining which interested parties deemed to be 'directly and adversely affected' in matters such as these, and to restrict those who are considered to have full standing in this proceeding (or any related proceeding) to only those living directly adjacent to the site is evidentially not informed by the best available research.

AWA requests the AER reject all of Northback's applications and remove the 'advanced project' status from Grassy Mountain.

Sincerely,

Alberta Wilderness Association



Kennedy Halvorson
Conservation Specialist

³² Benga Mining Limited. 2017. [Grassy Mountain Coal Project, Notice of Application](#).