

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

May 22, 2025

Regulatory Applications Alberta Energy Regulator Suite 1000, 250 – 5 Street SW Calgary, Alberta T2P 0R4 Fax: 403-297-7336 Email: <u>SOC@aer.ca</u> Coalspur Mines (Operations) Limited PO Box 6416 Hinton, Alberta T7V 1X5 Attention: Amanda Buchanan Telephone: 780-865-7955 E-mail: abuchanan@bighornmining.com

## Statement of Concern Re: Coalspur Vista Phase II EIA Report and Integrated Application.

Dear Alberta Energy Regulator,

Alberta Wilderness Association (AWA) appreciates the opportunity to provide this Statement of Concern (SOC) regarding the following applications submitted by Coalspur Mines (Operations) Limited on April 17, 2025:

- Coal Conservation Act (CCA): 1957562, 1957563, and 1957564;
- Environmental Protection and Enhancement Act (EPEA): 018-00301345;
- Public Lands Act (PLA): 32942635, 33229793, 33229831, 33229946, 33229955 and 33230091;
- Water Act (WA): 001-00508467 and 001-00508469.

Vista Phase II Coal Project is an extension of the currently existing Vista Coal Mine, located approximately 10km east of Hinton, AB, in Yellowhead County in portions of Sections 10 to 15, Township 051, Range 24 W5M and portions of Sections 07 and 18, Township 051, Range 23, W5M. AWA opposes this expansion proposal and requests that the AER deny approval to Coalspur Mines due to the significant economic, environmental, and societal risks posed by the mine expansion.

AWA is an Alberta-based conservation group with more than 10,000 members and supporters across Alberta, Canada, and around the world. AWA seeks the completion of a protected areas network in the province and is mandated to ensure the good stewardship of Alberta's public lands, waters, and biodiversity so that future generations can enjoy the abundant benefits they provide.

AWA has a legislated responsibility that necessitates our participation in the regulatory processes of resource development; section 2(f) of the Environmental Protection and Enhancement Act (EPEA) and section 2(d) of the Water Act, state that it is "the shared responsibility of all Alberta citizens for ensuring the protection, enhancement and wise use of the environment through individual actions" and to ensure "the conservation and wise use of water", by "providing advice with respect to water

management planning and decision-making"<sup>1,2</sup>. As both representatives of citizens and citizens of Alberta ourselves, AWA has a responsibility to submit a SOC on this issue. The approval of Coalspur's Vista Phase II proposal goes against the best interests of Albertans, including our more than 10,000 members who support the work we do to safeguard the environment.

Approval of Coalspur's application would have negative impacts on surface and groundwater flow. Section 2(a) of the *Water Act* stresses "the need to manage and conserve water resources to sustain our environment and ensure a healthy environment and high quality of life in the present and the future"<sup>1</sup>. The application states that Vista Phase II mine's dewatering has the potential to reduce the baseflow to zero at the top of McPherson Creek and tributary 13 during mining, as well as reduce baseflow farther downstream by up to 90%. Although there are plans to divert water from the McLeod River to offset this, it will take approximately 30 years and will reduce water availability in the McLeod River, proving to be a poor solution in the short and long term.

The end pit lake is estimated to take over 100 years (around 165) to fill and become fully functioning from a hydrological standpoint. Although it is noted that pumping water from other stream sources into the end pit could reduce this to as soon as 30 years, this requires significant inputs from local above-ground water systems. Changes to the water allocation and water flow of McPherson Creek and tributary 13 will impact habitat suitability and conditions for species to survive, change soil and land structure, and reduce water availability and quality for species and ecosystems that are dependent on those areas. The application additionally states that "impacts to groundwater discharge to surface water seepage from the mine pits is relabelled as surface water discharge", however, this surface water discharge is not functionally equivalent to groundwater discharge and may be contaminated from the mining process.

The data used to predict water changes was based on insufficient data collection methods and is inadequate for a proper assessment of anticipated project impacts. The local study area watercourse monitoring was conducted for less than 1 year, which is not a long enough time frame to understand the fluctuations and true baseline of the water systems that will be impacted by this proposed project; similar jurisdictions require at minimum 2 years of data for baseline hydrologic studies<sup>3</sup>. Additionally, the water runoff model utilized to estimate the conditions of the McLeod River during average versus drought year conditions was based on a 1970 simulation. This outdated simulation does not reflect current realities of the system and does not take into consideration the climate impacts and water allocation changes that have impacted the river for more than fifty years.

In conjunction with changes to water flow above and below ground, the proposed mine will contribute to contaminating local water systems. Surface runoff from mining activities, including mines, dumps,

<sup>&</sup>lt;sup>1</sup> Government of Alberta. 2024. <u>Water Act</u>. Accessed May 15, 2025.

<sup>&</sup>lt;sup>2</sup> Government of Alberta. 2024. <u>Environmental Protection and Enhancement Act</u>. Accessed May 15, 2025.

<sup>&</sup>lt;sup>3</sup> Government of British Columbia, Ministry of Environment. 2016. <u>Water and Air Baseline Monitoring Guidance Document for</u> <u>Mine Proponents and Operators</u>. Accessed May 22, 2025.

and disturbed land areas, can release deleterious substances; in the McLeod watershed, research has found elevated metal concentrations including antimony, cobalt, iron, lithium, manganese, molybdenum, nickel, selenium, strontium, thallium and uranium in sites impacted by mining operations<sup>4,5</sup>. Discharged mine water is likely to have increased levels of sediment and other deleterious substances. The decommissioning of the project will potentially change water temperature, as well as allow for contamination from tailings pits to enter water systems. Old pits, crushed rock, and settling ponds will continue to leach contaminants into the water system once coal mining is completed, continuing to negatively impact water systems. The application notes that "after wastewater stops flowing into the ponds, water from tailings will seep into the nearby McPherson Creek after approximately 11 to 160 years".

The project application highlights that alkalinity and water hardness, aluminum, barium, dissolved solids, and nitrogen are all expected to increase in McPherson Creek during and after mining. Nitrite, dissolved iron, and arsenic are expected to exceed water quality guidelines during both mining and post-reclamation in McPherson Creek. Both dissolved iron and arsenic levels are expected to exceed aquatic life water quality guidelines as well. There does not appear to be a clear plan for ensuring that these impacts are mitigated, except for stating that there are potential arsenic removal mechanisms and that iron may be flocculated in settling ponds. No specifics are given for this method of iron flocculation, and there is no guarantee that this will reduce iron levels to within water quality guidelines. Given that iron levels in one sampling location of McPherson Creek already exceed guidelines due to groundwater discharge from pre-existing mine pits, additional mining should not be permitted, especially given that iron levels were not properly mitigated from Phase I of the project.

Iron is also not the only substance that is already too high in nearby streams and water systems. Metals, including selenium, iron, lithium, molybdenum, rubidium, and vanadium, are higher in the McPherson Creek Tributaries than in the main stem. Selenium levels in the McLeod River surpass guidelines. Aluminum levels are higher than guidelines for aquatic life in the Athabasca and McLeod rivers. Considering these baselines, the water systems surrounding the project cannot afford any increases that would result from the expansion of the mine.

It is well documented that many of these substances stay in the environment, accumulating throughout the different stages of the mining and decommissioning process. Additionally, contaminants such as selenium are expected from three out of four constituent-source pairs that the proponents highlight, increasing the likelihood of accumulation and greater environmental impacts.

The project area is home to twenty-two species at risk, with five of these afforded legal protections under the federal *Species at Risk Act;* the Western toad, grizzly bear, little brown myotis, Northern myotis, and barn swallow. Species at risk present and listed under Alberta's *Wildlife Act* include the long-

<sup>&</sup>lt;sup>4</sup> Redmond, L.E. 2021. <u>Water quality in the McLeod River as an indicator for mining impacts and reclamation success (2005 to 2016)</u>. Government of Alberta, Ministry of Environment and Parks.

<sup>&</sup>lt;sup>5</sup> Casey, R. 2005. <u>Results of aquatic studies in the McLeod and Upper Smoky River systems</u>. Government of Alberta, Alberta Environment.

toed salamander and the barred owl. There is a high likelihood of negative impacts being felt by these species, who will face habitat loss and fragmentation, sensory disturbances, exposure to deleterious substances, disruption of dens and/or nesting sites, and increased mortality throughout the mining process and following the end-of-life of the mine. For example, habitat and land disturbances are known to increase human-caused mortality of the threatened grizzly bear<sup>6</sup>. Human presence also impacts grizzly behaviour and presence with a zone of influence of up to 2 km; in an effort to avoid humans, grizzlies have reduced access to habitat<sup>7</sup>. This species is already facing additional threats in the province due to changes made in Alberta that allow grizzly bears that are "involved in a human-bear conflict" or "in an area of concern" to be hunted<sup>8</sup>. Based on these concerns, it is unwise to allow additional activities to occur in grizzly bear habitat when actions are not otherwise being taken to recover the species.

Wetland breeding habitat for the long-toed salamander and the Western toad, both designated as special concern, will be severely damaged throughout the mining process, placing these species more at risk. Calypso Pond, which is located within the project area, is a known breeding pond for the long-toed salamander. The government of Alberta recommends retaining a 250m buffer including forest patches to maintain the core habitat of this species; the proposed 100m buffer surrounding this pond is not sufficient to avoid negative impacts to the species from contaminated runoff and sensory disturbance<sup>9</sup>. The application notes that salamanders may be killed as clearing activities are occurring near Calypso Pond, undermining Coalspur's commitment to preserving the species.

Adverse impacts posed to water, critical aquatic habitat, and aquatic species protected under the federal *Species at Risk Act* are also expected if the project is permitted to go ahead. The Athabasca Rainbow Trout (*Oncorhynchus mykiss*), listed as endangered under the *Species at Risk Act*, is found only in the upper Athabasca River watershed in Alberta. Those documented within McPherson Creek are also noted to have a high rate of genetic purity, which provides more definitive requirements that they and their habitat be preserved. Bull Trout (*Salvelinus confluentus*), (Saskatchewan– Nelson Rivers populations), are listed as threatened under the *Species at Risk Act* and are also found within surrounding watersheds. As indicated in the report, "McPherson Creek watershed, as well as many of the adjacent watercourses, are listed as Critical Habitat for Rainbow Trout (Athabasca River populations; Endangered, SARA Schedule 1) and are also listed for the potential for Bull Trout (Western Arctic populations; Special Concern, SARA Schedule 1)".

These species are both in decline in the province, are known to be present in aquatic areas downstream of the proposed expansion, and are sensitive to changes in water quality, quantity, and habitat

<sup>&</sup>lt;sup>6</sup> Alberta Environment and Parks. 2020. <u>Alberta Grizzly Bear Recovery Plan</u>. Alberta Species at Risk Recovery Plan No. 37. Accessed May 15, 2025.

<sup>&</sup>lt;sup>7</sup> Thompson, P.R., Paczkowski, J., Whittington, J., & Cassady St. Clair., C. 2025. <u>Integrating human trail use in montane</u> <u>landscapes reveals larger zones of human influence for wary carnivores</u>. Journal of Applied Biology.

<sup>&</sup>lt;sup>8</sup> Government of Alberta. 2024. <u>Protection of life and property from problem wildlife</u>. Accessed May 15, 2025.

<sup>&</sup>lt;sup>9</sup> Government of Alberta. 2016. Long-Toed Salamander Conservation Management Plan. Accessed May 22, 2025. <u>Long-Toed</u> Salamander Conservation Management Plan

alteration<sup>10,11</sup>. Any sediment, selenium, or heavy metals entering McPhearson Creek, which runs directly alongside the proposed mining area, and the McLeod River system downstream of the project area, can cause harm to aquatic species at risk like the Athabasca rainbow trout and bull trout. Deleterious substances like selenium are capable of causing deformities and reproductive issues, as well as higher rates of mortality, in fish<sup>12,13</sup>. Increased sedimentation is a known stressor for bull trout, and has been shown to disrupt their feeding patterns, growth, reproductive success, and movements, as well as make them more susceptible to various forms of disease<sup>14</sup>. The application notes that mining activities may cause changes or losses to fish passage, fish mortality, changes or loss to habitat, and sedimentation of fish habitat. Additionally, the construction of water crossings such as the proposed MCT13 crossing will have negative impacts on critical habitat. Threatened bull trout and endangered Athabasca rainbow trout are already experiencing significant habitat loss and degradation as a result of land-use activities<sup>10,11</sup>. To place further strain on these populations would violate the *SARA* objectives of protecting, maintaining, and recovering these populations.

Planned reclamation activities for the project are not sufficient to ensure pre-disturbance ecological functions. The application dictates the removal of fen/peatland areas within the project area, with reclamation efforts focused on replacing these with other wetland types such as swamp and open water wetlands. The application states that "fens cannot be reclaimed to their original condition or even to a state that allows for equivalent hydrological function", requiring reclamation activities to be limited mainly to non-peatland varietals. Peatland, and specifically fen ecosystems, accumulate up to four times as much carbon and twelve times as much nitrogen as other ecosystems<sup>15</sup>. Replacing these wetland ecosystems with other varieties will severely lower their capacity for carbon and nitrogen storage<sup>15</sup>. This has impacts for climate change mitigation, element cycling in the ecosystem, and changes to the ecological functions of the original ecosystems.

These impacts will extend outside of the immediate project area and will continue for many years following the mine's end-of-life. Coalspur acknowledges this in their application, which states that "The re-establishment of wetlands – particularly organic wetlands – is expected to take longer than the temporal boundary of 20 years from the project initiation. Furthermore, their hydrologic and habitat functions will likely be difficult to duplicate and impacts and effects are likely to extend beyond the project boundaries and LSA, making the cumulative impact high". Additionally, the severity of this loss is

<sup>&</sup>lt;sup>10</sup> Government of Canada. 2023. <u>Recovery Strategy for the Rainbow Trout (*Oncorhynchus mykiss*) in Canada (Athabasca River populations)</u>. Accessed May 13, 2025.

<sup>&</sup>lt;sup>11</sup> Government of Canada. 2025. <u>Recovery Strategy for the Bull Trout (Salvelinus confluentus)</u>, <u>Saskatchewan-Nelson Rivers</u> populations, in <u>Canada</u>. Accessed May 13, 2025.

<sup>&</sup>lt;sup>12</sup>Kuchapski KA. 2013. Effects of selenium and other surface coal mine influences on fish and invertebrates in Canadian Rockies streams. Doctoral dissertation, Lethbridge, Alta.: University of Lethbridge, Dept. of Biological Sciences, c2013. Accessed May 15, 2025.

<sup>&</sup>lt;sup>13</sup> Kuchapski KA & Rasmussen JB. 2015. <u>Food chain transfer and exposure to Se in salmonid fish communities in the Canadian</u> <u>Rocky Mountains.</u> Can. Journal of Fisheries and Aquatic Science 72; 955-967. Accessed May 15, 2025.

 <sup>&</sup>lt;sup>14</sup> Birtwell IK. 2000. <u>The effects of sediment on fish and their habitat</u>. Fisheries and Oceans Canada. Accessed May 15, 2025.
<sup>15</sup> U.S. Geological Survey: Ecosystems Land Change Science Program. 2017. <u>Boreal vegetation and cycling of carbon and</u> nitrogen. Accessed May 9, 2025.

highlighted in the application when it is stated that "The loss of wetlands represents an alienating disturbance that could last several hundred years" and "The impact of disturbance ... is considered irreversible for that portion of the footprint currently occupied by wetlands". It cannot be considered responsible or sustainable development to allow such prolonged and extensive negative impacts on the ecosystem when there is no effective reclamation strategy to replace what is lost.

Planned reclamation activities are insufficient for the non-wetland ecosystems within the project area. Re-vegetation efforts will be made with a limited number of species, including agronomic ones, not fully capturing the diversity of plant life pre-development. The application also notes that "reclamation and revegetation activities may be hindered due to climate change, increase in temperature, and change in precipitation", and in the face of a rapidly changing climate, this outcome is likely. Complete removal of a remaining old seral stage deciduous forest stand is also slated within the project boundary. The suggested reclamation strategy for this is to replace the old seral stage forest with a young forest stand, which is not adequate to restore the carbon sequestration, habitat provisions, below-ground conditions, and other ecosystem services that only old-growth forest areas are able to provide<sup>16</sup>. Based on Coalspur's own findings, proposed reclamation activities are not sufficient to return sites to predisturbance functioning.

Although Coalspur has stated optimistic plans for their ability to reclaim the project area post-mining and mitigate contamination of the surrounding environment, their track record does not support their promises. The company owed more than \$5,000,000 in 2021 to various creditors and businesses, much of which will not be paid back in full<sup>17,18</sup>. Phase I of the Vista project was forced to shut down in 2021, as they ran out of capacity to store tailings waste<sup>17</sup>. Coalspur has additionally failed to prove that they can adequately control deleterious substances in mine wastewater. In 2025 alone, Coalspur Mines Ltd has had 6 incidents of mine wastewater exceeding allowable deleterious substances limits of TSS & nitrate, with one instance showing more than three times the TSS monthly exceedance limit<sup>19</sup>. Based on these issues, it cannot be assumed that Coalspur will take the necessary actions to maintain regulatory compliance throughout the lifecycle of this project, nor can we expect to avoid additional financial strain from unpaid debts.

This proposed project is not economically beneficial for Albertans. There are "no plans to expand the workforce", according to the application, meaning that local workers will not receive direct benefits from the expansion. Additionally, the final mined product is slated to be shipped overseas for use, removing benefits from the province immediately after mining is complete. More importantly, Canada has committed to phasing out coal-powered electricity generation, which is solidified by the newly elected federal government's commitment to ban thermal coal exports, as well as no longer approve

 <sup>&</sup>lt;sup>16</sup> Gilhen-Baker M, Roviello V, Beresford-Kroeger D, et al. 2022. <u>Old growth forests and large old trees as critical organisms</u> connecting ecosystems and human health. A review. Environmental Chemistry Letters 20(2): 1529-1538. Accessed May 9, 2025.
<sup>17</sup> Anderson, D. 2022. <u>This Alberta coal mine is back from the brink of financial ruin — but it comes at a cost</u>. The Narwhal. Accessed May 9, 2025.

<sup>&</sup>lt;sup>18</sup> FTI Consulting. <u>Coalspur Mines (Operations) Ltd. - Motion Materials</u>. Accessed May 10, 2025.

<sup>&</sup>lt;sup>19</sup> Alberta Energy Regulator. 2025. <u>Compliance Dashboard</u>. Accessed May 9, 2025.

new or expanded thermal coal mines, by 2030<sup>20,21</sup>. As the proposed project intends to run for approximately 12 years, these legal changes will have significant impacts on the viability of the mine for the majority of its running time. The long-term feasibility of this project is severely inhibited by the upcoming legal changes to the mining and export of thermal coal in Canada. Finally, the Alberta public has already made their opposition to coal mining on the Eastern Slopes clear. Almost 25,000 people participated in a government survey in 2021, which was released with the goal of seeking input on the province's coal policy. The environmental impacts of coal development were considered a top concern for participants, with over two-thirds stating the economic benefits from the coal industry are not important at all<sup>22</sup>. Over 90 per cent of respondents also noted that there are areas of the province that are not appropriate for coal exploration and development, like the Eastern Slopes. The Coal Policy Committee provided an engagement report to the government in March of 2022, detailing the findings of their research into Albertans' preferences for coal planning in the Eastern Slopes<sup>23,24</sup>. Their findings clearly demonstrated that Albertans are strongly opposed to coal development on the Eastern Slopes, largely because of the adverse environmental impacts that can be expected with large coal projects such as the Vista Phase II expansion and "a lack in confidence in the regulation of coal".

Coalspur's proposed Vista Phase II coal mining project is economically, environmentally, and socially unsound. Based on these reasons, AWA respectfully requests that Coalspur Mines (Operations) Limited's CCA, EPEA, PLA, and WA applications, along with any potential subsequent coal extraction activities, be denied.

Sincerely,

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<sup>&</sup>lt;sup>20</sup> Liberal Party of Canada. 2025. Ending Thermal Coal Exports. Accessed May 12, 2025.

<sup>&</sup>lt;sup>21</sup> Government of Canada. 2024. <u>Powering Past Coal Alliance: Phasing out coal</u>. Accessed May 13, 2025.

<sup>&</sup>lt;sup>22</sup> Government of Alberta. 2021. <u>Coal Policy Engagement: Initial engagement survey results</u>. Accessed May 15, 2025.

<sup>&</sup>lt;sup>23</sup> Coal Policy Committee. 2022. <u>Final report: Recommendations for the management of coal resources in Alberta.</u> Accessed May 15, 2025.

<sup>&</sup>lt;sup>24</sup> Coal Policy Committee. 2022. Engaging Albertans about coal. Accessed May 15, 2025.