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Wildsight is an environmental conservation organisation based in BC's East Kootenay region that is working to protect biodiversity, promote the protection of sensitive environments, and increase sustainability in our communities. We write in response to the invitation for comments on the draft Environmental Impact Statement/Application (EIS/A) for the Crown Mountain Coking Coal Project (referred to as "the project"). Wildsight has a long history of protecting biodiversity through conservation of land and water resources, and the opportunity to provide feedback on the proposed project is appreciated.

Mining has long been of importance to the provincial economy, and while we are fortunate to have these natural resources, it is of great importance that we recognize the enormous negative environmental impacts that mineral extraction projects are capable of. Issues with environmental degradation are clearly seen in the Elk Valley today, which is seeing elevated levels of water pollution due to continuing coal mining that is unlikely to be able to be dealt with within our lifetimes. While NWP's proposed Crown Mountain mine is projected to produce less coal and subsequently less pollution than existing coal mines in the area, we have to ask ourselves if allowing additional coal mining operations to occur is consistent with BC's long term goals. This mining project will produce limited numbers of jobs and tax revenue for 15 years, but will have long term and irreversible effects on water quality, endangered species habitat, important wildlife movement corridors, and greenhouse gas emissions. It is vital we accurately weigh the pros and cons of allowing such a proposal to move forwards.

Statutory Scheme

The Crown Mountain Coking Coal Project is being assessed under the provincial *Environmental Assessment Act* (EAA) and the federal *Canadian Environmental Assessment Act, 2012* (CEAA 2012).[1]

CEAA 2012 requires consideration of environmental effects within the legislative authority of the federal government, including:[2]

(a) changes to fish and fish habitat, aquatic species, and migratory birds;
(b) changes on federal lands, in other provinces, or outside Canada; and

[1] *Environmental Assessment Act*, SBC 2018, c 51 [EAA 2018]; *Canadian Environmental Assessment Act, 2012*, SC 2012, c 19, s 52 [CEAA 2012].
[2] CEAA 2012 at section 5(1).

(c) changes that affect Indigenous peoples, specifically changes to the environment on health and socio-economic conditions, physical and cultural heritage, use of lands and resources for traditional purposes, or structures and sites of historical, archaeological, paleontological or architectural significance.

The federal environmental assessment must include information about these environmental effects and their significance, comments from the public, mitigation measures, the purpose of the project, and alternative means of carrying out the project (along with several other required assessment matters).[3]

Ultimately, the federal decision-maker's duty is to decide whether the project is likely to cause significant adverse environmental effects, and if so, whether those effects are justified in the circumstances.[4]

The EAA requires consideration of the following matters in every assessment:[5]

(a) positive and negative direct and indirect effects of the reviewable project, including environmental, economic, social, cultural and health effects and adverse cumulative effects;
(b) risks and uncertainties associated with those effects;
(c) risks of malfunctions or accidents;
(d) disproportionate effects on distinct human populations, including populations identified by gender;
(e) effects on biophysical factors that support ecosystem function;
(f) effects on current and future generations;
(g) consistency with any land-use plan of the government or an Indigenous nation;
(h) greenhouse gas emissions, including the potential effects on the province being able to meet its targets under the *Greenhouse Gas Reduction Targets Act*;
(i) alternative means of carrying out the project that are technically and economically feasible; and
(j) potential changes to the reviewable project that may be caused by the environment.

Additionally, the effects of a project on Indigenous nations and rights must be assessed for each proposed project.[6]

When making a decision about whether to issue a provincial environmental assessment certificate, the ministers must consider these matters as well as the purposes of the Act to promote sustainability by protecting the environment and fostering a sound economy and the well-being of British Columbians and their communities, and to support reconciliation with Indigenous peoples in British Columbia, along with any other matters relevant to the public

[3] CEAA 2012 at section 19.
[4] CEAA 2012 at section 52.
[5] EAA 2018 at s. 25(2).
[6] EAA 2018 at s. 25(1).

interest.[7] Consensus with participating Indigenous nations must also be sought prior to the decision.[8]

Below we provide specific comments on missing or deficient information on environmental effects in the draft EIS/A, or to emphasize the significance of those effects.

The environmental impacts of the Crown Mountain Project will be significant, both when considered individually and cumulatively alongside other mines in the region. Many of these effects fall squarely within federal responsibility: including the death and habitat destruction of federally-protected species at risk, impacts to fish and fish habitat, significant impacts to culturally-important sites of Indigenous peoples, and transboundary pollution that will be soon be subject to a International Joint Commission reference. This is on top of effects that should be concerning to both levels of government, such as land destruction and increases in greenhouse gas emissions. These effects must be addressed and mitigated, if possible, for this project to proceed in this heavily impacted region.

Water Pollution

Selenium pollution resulting from decades of coal mining continues to be a critical issue in the Elk Valley, as well as downstream throughout the Columbia Basin. Selenium loads have consistently increased over the decades despite recent efforts to treat mine influenced waters. In the meantime, mining continues at a massive scale, producing millions of tonnes of waste rock which will leach selenium into the river for centuries to come. Pressure to mitigate this pollution is rising, with more and more communities and governments speaking up.

While the EIS/A projects that operations will release less selenium into the environment than current coal mines in the area, it is clear that allowing this project to move forward will actively worsen the selenium crisis in a time where drastic actions to reduce pollution are desperately needed. Just last year the city of Fernie commenced exploration for a new municipal water supply as selenium levels in their secondary well intermittently rose above provincial drinking water guidelines. Selenium levels in Lake Koocanusa currently violate Montana's environmental protection laws, and show no signs of dropping. Allowing more extensive mining to occur would worsen these problems, and signal to stakeholders including international and indigenous governments that have called for action in this crisis for decades that BC is not taking the issue seriously. Elk River selenium loads have been increasing year over year and show no signs of lessening. Drastic action is necessary to curb this flow of pollution, and allowing for even more coal mining to occur would be an enormous step backwards.

The Crown Mountain Coking Coal project EIS/A relies on a selenium mitigation strategy that is unproven, with the potential to release even more contaminants than predicted into Alexander Creek and subsequently the Elk River. NWP's selenium mitigation strategy relies on a waste rock storage technique that requires the maintenance of dry, nearly airtight conditions in order to function properly. While in theory the use of geosynthetic membranes could help achieve this, reports from trials run in Teck's waste rock dumps indicate middling results in

[7] EAA 2018 at ss. 29(4) and 2(2)(b).
[8] EAA 2018 at s. 29(3).

terms of limiting selenium leaching. Furthermore, the EIS/A does not propose the use of these membranes, and instead rely on layers of packed coal refuse, tailings, and organic matter to restrict water and air flow through the system, which are much less effective than geosynthetic membranes, which are designed to be impermeable. This method has never been used in a coal mining context, and was not designed for selenium leaching mitigation. Additionally, placing a waste rock dump that is required to be dry to function within an active creekbed in an environment that sees significant snowfall and subsequent melt during the spring is a plan flawed from the beginning.

Current water use plans do not involve active water treatment of mine-influenced waters and instead rely on the aforementioned experimental passive mitigation technique to restrict selenium contamination into the watershed. Even with active water treatment, there is no indication that selenium pollution from further coal mining can be mitigated – the largest metallurgical coal proponent in the Elk Valley, Teck Resources Limited, has been repeatedly subject to both provincial and federal penalties for inadequate or inappropriate implementation of its active water treatment facilities.[9]

Even best case scenarios predicted in the EIS/A involve the doubling of maximum yearly selenium concentrations in Alexander Creek compared to background levels. The Alexander Creek watershed is currently not directly impacted by mining processes, and acts as both important habitat for native species as well as a vital wildlife migration corridor. Additional selenium inputs such as this mine proposal into the Elk River should not be allowed, especially while we are currently on the cusp of a multi-governmental International Joint Commission reference into examining water pollution issues in the Elk Valley. Allowing permitting to move forward would only serve to embarrass BC on an international scale.

Impacts to Species at Risk

NWP's proposed project will greatly disturb over 850 hectares in an area currently not impacted by coal mining, which would include the destruction of confirmed critical Whitebark Pine habitat, as well as Westslope Cutthroat Trout (WCT) habitat.

The Whitebark pine is listed as an endangered species on Schedule 1 of the federal *Species at Risk Act* (SARA), and is of great importance for ecosystem health. The currently proposed mining footprint would include the destruction of approximately 5.5 square kilometers of Whitebark Pine habitat, much of which has been identified as critical habitat with confirmed specimens described by local experts to be of unusual size and health. SARA prohibits both the destruction of endangered species and their critical habitat.[10]

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[9] See e.g. the $30 million dollar settlement between Teck and the federal government for systemic contravention of the Fisheries Act, "the largest ever [monetary payment] imposed for offences under the Fisheries Act": https://www.ppsc-sppc.gc.ca/eng/nws-nvs/2021/26_03_21.html, and the January 2023 contravention of the provincial Environmental Management Act for non-compliance with Teck's Permit for the Fording River mine setting standards for active water treatment: https://nrced.gov.bc.ca/records;autofocus=63e269050f30be002248b8c7;keywords=teck;ms=42;currentPage=5;pageSize=25;sortBy=-dateIssued.

[10] Species at Risk Act at sections 32 and 58

The BC population of WCT is listed under SARA as a species of Special Concern, and would be greatly impacted by mine development, including the destruction of the vast majority of West Alexander Creek. The federal government has a responsibility under SARA to protect species of special concern, and not further threaten their existence through the approval of projects like Crown Mountain. Additionally, the federal government is responsible under the *Fisheries Act* for the conservation and protection of fish and fish habitat; activities that result in the death of fish or destruction of their habitat are prohibited.[11] West Alexander Creek is a known habitat for a unique subpopulation of WCT of smaller size that travel very little distance throughout their lives, staying solely within the creek despite having no physical barriers to move further in the watershed. Mine development would result in the removal of the vast majority of West Alexander Creek, resulting in complete habitat loss for this unique subpopulation and a large habitat loss for WCT in general in the Elk Valley.

Currently, the EIS/A proposes addressing WCT habitat loss resulting from project development by replacing destroyed habitat elsewhere through a process called habitat offsetting, in areas and quantities yet to be determined. However, the concept of habitat offsetting has been rife with issues, as the complexity and value of an ecosystem is nearly impossible to quantify, and offsetting projects inherently have issues with both predicting and assessing effectiveness. In short, there is no way to truly replace an ecosystem, and no guarantee that attempts to do so will be successful. Due to the complexity of natural ecosystems, habitat offsetting projects also struggle to fully characterize the biodiversity of a given habitat, which makes any claims made about preserving biodiversity dubious at best. Habitat offsetting is a tool that can be used as we endeavour to protect BC's biodiversity and ecosystem health, but should be a last resort and not used to justify such poorly conceived short term projects set to largely benefit foreign entities.

Despite the limitations of habitat offsetting, the consideration of a WCT habitat offsetting plan shows that some attention is being given to the species. However, no offsetting plan for the endangered Whitebark Pine seems to have been considered. The Whitebark pine is the only tree species in western Canada listed as endangered under SARA, and has been shown to be of critical importance to ecosystems, supporting healthy populations of grizzly bear and birds such as Clark's Nutcracker. Long lived and slow growing, the whitebark pine is especially vulnerable to impacts from industrial development. Even if a habitat offsetting plan were to be implemented, the success would only truly be able to be assessed decades down the line, long after NWP will have finished with this short term project. Holding mining companies accountable for long term issues has been shown to be difficult time and time again, as we can clearly observe at the former Tulsequah Chief mine, among countless other sites in BC and abroad. As we continue to struggle with mining related environmental issues while footing the bill with taxpayer dollars, it is important we ask ourselves if we are truly willing to allow the destruction of endangered species habitat for short term economic gain.

Greenhouse Gas Emissions

According to the EIS/A, greenhouse gas (GHG) emissions from the Crown Mountain Coal project are substantial: 5.69 MT cumulatively over the life of the Project and upwards of

[11] Fisheries Act at sections 34.4 and 35.

414 572 tonnes/year. Methane emissions will also be large at 140,720 tonnes of CO2e/year. (p 6-59)

As the EIS/A sets out, B.C. has legislated GHG emissions reductions targets for the years 2025 (16%), 2030 (40%), 2040 (60%) and 2050 (80%) (all reductions targets relative to 2007 emissions levels). BC's 2030 target is broken down sector by sector and includes a commitment to reduce emissions by 38-43% in the "Other Industry" sector. This sector includes mining operations and coal fugitive emissions).[12]

The *Canadian Net-Zero Emissions Accountability Act* has legislated 40-45% reductions in federal GHG levels by 2030. This Act also requires national emissions targets to be set for 2035, 2040 and 2045 all increasing in stringency towards net-zero emissions by 2050. Canada is also a signatory to the Global Methane Pledge which commits to reducing methane emissions from all sectors, including coal fugitive emissions, by 30% below 2020 levels by 2030.

The EIS/A fails to address how the Project is consistent with any of these emissions targets, as it simply concludes that because peak emissions only constitute 0.66% of BC's 2007 emissions and that the Project is "expected" to be fully recommissioned prior to 2050, the effects are not considered to be significant.

This approach is unfounded for two main reasons. First, by failing to consider in any way how the Project is consistent with BC and Canada's GHG and methane emissions commitments in 2030, 2035, 2040 or 2045 it cannot reasonably make any findings on whether it will have significant impacts. While it is unknown when the Project (if approved and constructed) would proceed, it is more than reasonable to conclude that it would be operational in 2030, 2035, 2040 and 2045. Importantly, the EIS/A is clear that the Project's emissions are set to increase, not decrease over time, with peak emissions occurring in years 8, 12, 13, 14 and 16 when GHGs will be the most restricted. As emissions restrictions tighten, the relevant issue is not how much of BC's past emissions the project will constitute, but how significant a section of BC and Canada's future emissions budgets. This must also consider cumulative effects and emissions from other operators in this sector during these relevant time periods. While this information is by no means the only information relevant in determining whether a project's GHG will cause significant effects, it is necessary for decision makers to have this relevant information to determine whether these effects are significant.

Secondly, the EIS/A's GHG analysis is also flawed because, based on the information available, there are strong indications that GHG impacts are significant:

- The Project's GHG intensity appears to be significantly higher than other operations. Given the time constraints of this public comment period, Wildsight has not undertaken an extensive analysis on this issue, however, initial indications suggest a threefold higher GHG intensity per tonne of coal product. For example, the EIS/A sets out Teck's Greenhills Mine's total GHG emissions at 381,492 tonnes CO2e/year. This is roughly the same average annual GHG emissions for the Project (excluding the first two years

[12] https://www2.gov.bc.ca/gov/content/environment/climate-change/planning-and-action/ccar/progress-targets

during construction).[13] Despite having similar annual GHG emissions, the Project will produce about 1/3rd of the amount of coal produced at Greenhills: the Project's production is 1.95MT in saleable coal; according to Teck, Greenhills produces 5.9 MT of cleaned and saleable coal.[14] The EIS/A provides no comparison nor any rationale for this massive disparity. The Project's apparent threefold higher GHG intensity weighs heavily towards a finding of significant effects.

- This high emissions intensity is further documented in the EIS/A which states that the worst-case scenario for the Project would result in it constituting 13.8% of Canada's total coal production profile (3.0 MT in total based on 2019 numbers).[15] However in 2019 Canada produced 51.8 MT of coal.[16] The Project would therefore increase Canada's coal production by 3.66% but would increase its emissions from coal by 13.8% suggesting a disproportionately high emissions intensity almost 4 times the average Canadian mine.
- As previously noted, the Project's emissions are substantial. The average annual emissions in production years are equivalent to over 82,000 cars on the road every year.[17] The BC government often points to its Clean Growth Infrastructure Royalty Program as a key initiative for reducing GHG emissions. In 2022/23 this program's substantial financial investments resulted in 245,308 tonnes of GHG reductions.[3] GHG emissions from this Project alone would wipe away this progress and would offset its GHG reductions.[18]
- Given that BC's legislated GHG targets will require emissions in the province to decrease by at least 60% by 2040, the emissions from the Project would grow to well above 1.6% of all of BC's emissions.[19] The EIS/A calculates that the Project will contribute $1.21 billion to GDP, or $71 million per year, or 0.02% of its GDP using BC's 2020 GDP of $287 billion.[20]
- Canada's commitment to the Global Methane Pledge to reduce methane emissions by 30% below 2030 levels is likely to be significantly impacted by the Project. While coal mine methane emissions are one part of Canada's total methane emissions, those

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[13] Averaging GHG emissions for years 3-17 that appear in Table 6.5-7 of the EIS/A is 376,766 tonnes CO2e/year

[14] https://www.teck.com/operations/canada/operations/greenhills/

[15] EIS/A page 6-59

[16] Per Statistic Canada Production Date available online: https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=2510004601&pickMembers%5B0%5D=1.1&cubeTimeFrame.startMonth=01&cubeTimeFrame.startYear=2019&cubeTimeFrame.endMonth=12&cubeTimeFrame.endYear=2019&referencePeriods=20190101%2C20191201

[17] Applying the Project's annual operational emissions of 376,766 tonnes CO2e/year to the EPA's formula at https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle

[18] https://www2.gov.bc.ca/assets/gov/environment/climate-change/action/cleanbc/2023_climate_change_accountability_report_supporting_materials.pdf page 10

[19] As BC's overall emissions decrease in line with its targets (60% reduction in 2007 levels or 67MT CO2e will be 26.8 MT in 2040) of emissions, the share of the target increases as the Project's emissions remain steady. The Project's peak emissions of 414572 tonnes a year are 1.5% of this amount.

[20] https://www2.gov.bc.ca/gov/content/data/statistics/economy/bc-economic-accounts-gdp

emissions were 1.1MT CO2e in 2020.[21] The Project's methane emissions would constitute a 13% increase over 2020 levels or a 18% increase over the 2030 target.[22]

Finally, the EIS/A's rationale for determining that the Project's GHG emissions are not significant is unfounded as it rests solely on the claim that because its emissions relative to the entire country or province are small. The logic the EIS/A employs is exactly the argument that was recently rejected by the Supreme Court of Canada. Climate change is a collective action problem.[23] As the Supreme Court of Canada affirmed each source of emissions could indemnify their contribution to the harm by simply pointing to a larger source. Each source of GHG emissions is measurable and contributes to climate change. This obviously does not mean that each time a project with any GHG emissions is subject to an impact assessment that it will result in a finding of significance, but it suggests that a proponent cannot simply sidestep the significance inquiry by pointing to a larger source. This is particularly true when the proposed project is so disproportionately above industry average and will result in a substantial amount of emissions. As climate change impacts continue to manifest in the form of heatwaves, forest fires, and intense storm events, reducing emissions is vital if we are to ensure a livable world for future generations.

Lack of Evidence of Long-Term Economic Viability in a Carbon Constrained World

As stated in the EIS/A, the purpose of the mined coal is to be consumed in Asian steelmaking plants. The EIS/A also notes the consensus view that over the next 30 years there will be a transition towards decarbonization of the global steel industry.[24] This is an inevitability of the urgent global need to decarbonize to prevent the worst impacts from climate change. As greater restrictions on carbon are imposed in the lead up to net zero emissions in 2050 this has a foreseeably disruptive potential on metallurgical coal, including any coal mined in the Project. The greater the restrictions on carbon pollution, the more that the viability of metallurgical coal mining operations will depend on the carbon intensity of mined coal. As noted in Canada's National Inventory Report: "CO2 emissions factors for coal combustion depend largely on the properties of the fuel, and to a lesser extent, on the combustion technology."[25]

Yet despite this reality, there is no analysis of how the properties of the coal to be mined in this Project position it to be viable into the future. While the EIS/A boasts of the Project's economic viability, it fails to address this fundamental and foreseeable economic reality other than claiming (without citation) that this transition will take "many years" and that "the demand for coking coal is expected to continue to grow until at least 2050."[26] This estimate is completely

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[21] https://publications.gc.ca/collections/collection_2022/eccc/En81-4-2020-1-eng.pdf p 38

[22] Assuming a 30% reduction in these emissions per Canada's Global Methane Pledge commitment, it is reasonable to assume this amount will decrease from 1.1MT to 0.77MT. The Project's projected methane emissions would constitute an 18% increase in this amount.

[23] References re Greenhouse Gas Pollution Pricing Act, 2021 SCC 11 at para 188 and 189

[24] EIS/A Executive Summary at page E-4

[25] Canada's GHG National Inventory Report, 2021, Part 2 at A6.1.3.1 p 262, https://publications.gc.ca/collections/collection_2023/eccc/En81-4-2021-2-eng.pdf

[26] EIS/A Executive Summary E. 2. 2. p E-4

unaligned with the International Energy Agency's recent analysis which found that under certain scenarios metallurgical coal use drops 30%, not by 2050 but as soon as 2030.[27]

While future looking projections may differ, what is not in dispute is that the economic viability of this Project will depend on the ability of the coal it may produce to be marketed in a carbon restricted market. Therefore in order to make the claim that the Project will be viable, the EIS/A must address this reality by providing information on the carbon intensity of the fuel, how it will compare and compete with other metallurgical coal on the market, and whether this impacts consideration around the need for the Project or its economic viability.

It is impossible for any fossil fuel company operating today to not recognize the reality of operating in a carbon constrained world. As the world transitions to less carbon intensive or carbon neutral forms of production, fossil fuel companies must operate with the knowable risk that their investments could be significantly frustrated by either inevitable government restrictions or collapsing markets. While these kinds of policy decisions are outside of the jurisdiction of an impact assessment, given the foreseeability of these outcomes, it is requisite that the assessment process investigate, gather information and determine the potential impacts and effects of such foreseeable outcomes. In the current instance, this involves determining the potential impacts that could arise if a fossil fuel development could become a stranded asset as a result of these shifting conditions. As KPMG notes stranded assets increased the "risk of delinquency or default if the energy transition impacts [operators'] ability to generate cash flows from product demand shifts or carbon pricing liabilities."[28]

The significance of this risk is relevant to this assessment process not only to the viability of the Project, but also to the feasibility of the mitigation measures proposed in the EIS/A. Many if not all of the EIS/A's conclusions around significance of potential impacts are premised on proposed mitigation measures that will lessen identified impacts. This mitigation will require that the proponent have sufficient cash flows both before, during and after reclamation and remediation of the Project. This is particularly the case where a project proponent (and its parent companies) have relatively small market capitalization. For example, as of February 20, 2024, Jameson Resources Limited, which owns 78% of NWP, has only $13.51 million AUD in market capitalization.[29] At the very least the EIS/A needs to address this issue by providing information addressing these points and to include commitments from NWP to provide upfront security to pay for remediation of their liabilities. This security must accurately reflect the costs of remediation and reclamation. As the Annual Reports of BC's Chief Inspector of Mines repeatedly has found, the current amounts of security are significantly deficient - especially in existing coal mines in the Elk Valley.[30]

It is important that for the public to regain trust in both government and industry that environmental protections be assured and greater efforts to remediate mining pollution be

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[27] International Energy Agency, World Energy Outlook 2022, "Outlook for Solid Fuels", https://www.iea.org/reports/world-energy-outlook-2022/outlook-for-solid-fuels

[28] KPMG "Considerations for climate stranded assets" https://kpmg.com/us/en/articles/2022/considerations-for-climate-stranded-assets.html

[29] Financial Times, "Equities - Jameson Resources Ltd" February 20,2024 https://markets.ft.com/data/equities/tearsheet/summary?s=JAL:ASX

[30] BC Chief Inspector of Mines, Annual Report 2022/23 https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/mineral-exploration-mining/documents/reports/annual_report_of_the_chief_inspector_of_mines_2022-2023.pdf p. 38

made. Current practices and allowances have generated distrust in the province's ability to regulate industry activities in a responsible manner, and have resulted in a pollution crisis on an international scale. The invitation and permitting of additional mining in an area plagued with pollution issues would show that not only are we not serious about our international responsibilities to water and climate health, but are also willing to sacrifice our own biodiversity and invite long term environmental risks for short term financial gain. Strong action from our leadership is needed if we are to ensure healthy air and water for all living things in the Elk Valley, downstream throughout the Kootenay/Columbia river system, and globally.

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I live and work in the Columbia Basin on the unceded lands of the Ktunaxa, Secwépemc, Sinixt, Syilx Okanagan, Lheidli T'enneh and the chosen home of the Columbia River Metis. I honour their past, present and future stewardship of these lands and waters.