

# Project Notification Report

PN-007 GREENHILLS OPERATIONS  
AUGUST 1, 2023



**EAO**

Environmental  
Assessment Office

## 1.0 OVERVIEW OF THE PROJECT NOTIFICATION PROCESS

Section 10 of the *Environmental Assessment Act* (2018) (the Act) requires proponents to submit a Project Notification to the Environmental Assessment Office (EAO) for project proposals within prescribed categories under Section 5 of the [Reviewable Project Regulation](#) (RPR) that meet specific criteria defined by the RPR. The notification provided by proponents under Section 10 of the Act enables the EAO to bring projects to the attention of the Minister of Environment and Climate Change Strategy (Minister) so the Minister can determine whether the project should undergo an Environmental Assessment (EA), despite being below the reviewability threshold in the RPR.

The review of a Project Notification is not intended to be a complex or onerous process, but a check on whether proposed projects that do not meet the thresholds in the RPR should nonetheless go through the EA process due to their potential to cause significant adverse effects. Within 60 days of receiving the notification, the Chief Executive Assessment Officer (CEAO) must review a proponent's Project Notification and do one of the following:

1. Refer the notification to the Minister of Environment and Climate Change Strategy for consideration to designate the project as a reviewable project because of the potential for significant adverse effects;
2. Require further review under Section 10; or,
3. Determine that no further review is required.

The purpose of this report is to document the Project Notification process and its conclusions to inform the CEAO's determination under Section 10(4) of the Act. A proponent must not carry out any activities referred to in the notification until they receive the determination that no further review is required or any review of the project that is required has been completed. More information on the Project Notification process is found in EAO's [Project Notification Policy](#).

## 2.0 PROJECT OVERVIEW

The EAO received a Project Notification from Teck Coal Limited (Teck) for a modification of the existing Greenhills Operation (GHO) metallurgical coal mine on February 21, 2023, which was revised and re-submitted March 17, 2023. The notification was required because GHO emits more than 125,000 tonnes of greenhouse gases (GHG) per year. The scope of EAO's review is focused on the modification to GHO and not the entire GHO mine. Additional information regarding this criteria and current project GHG emissions is provided in [Section 3](#) of this Report.

The proposed modification, referred to by Teck as the Cougar Phase 7-2 Project (the Project), would increase the footprint of the existing pit by 54.5 hectares (ha), lower the mining depth to 1,525 metres above sea level, and would expand GHO's *Mines Act* C-137 Permit boundary by approximately 18.3 ha. The Project involves mining an additional 6.4 million bank cubic metres (Mbcm) of raw coal, 82.3 Mbcm of waste rock and 4.2 Mbcm of rehandled waste rock volumes. The purpose of the modification is to extend mine life at GHO from 2027 to 2028 and, combined with currently permitted reserves, would support maintaining production target rates at GHO for the next six years until 2028.

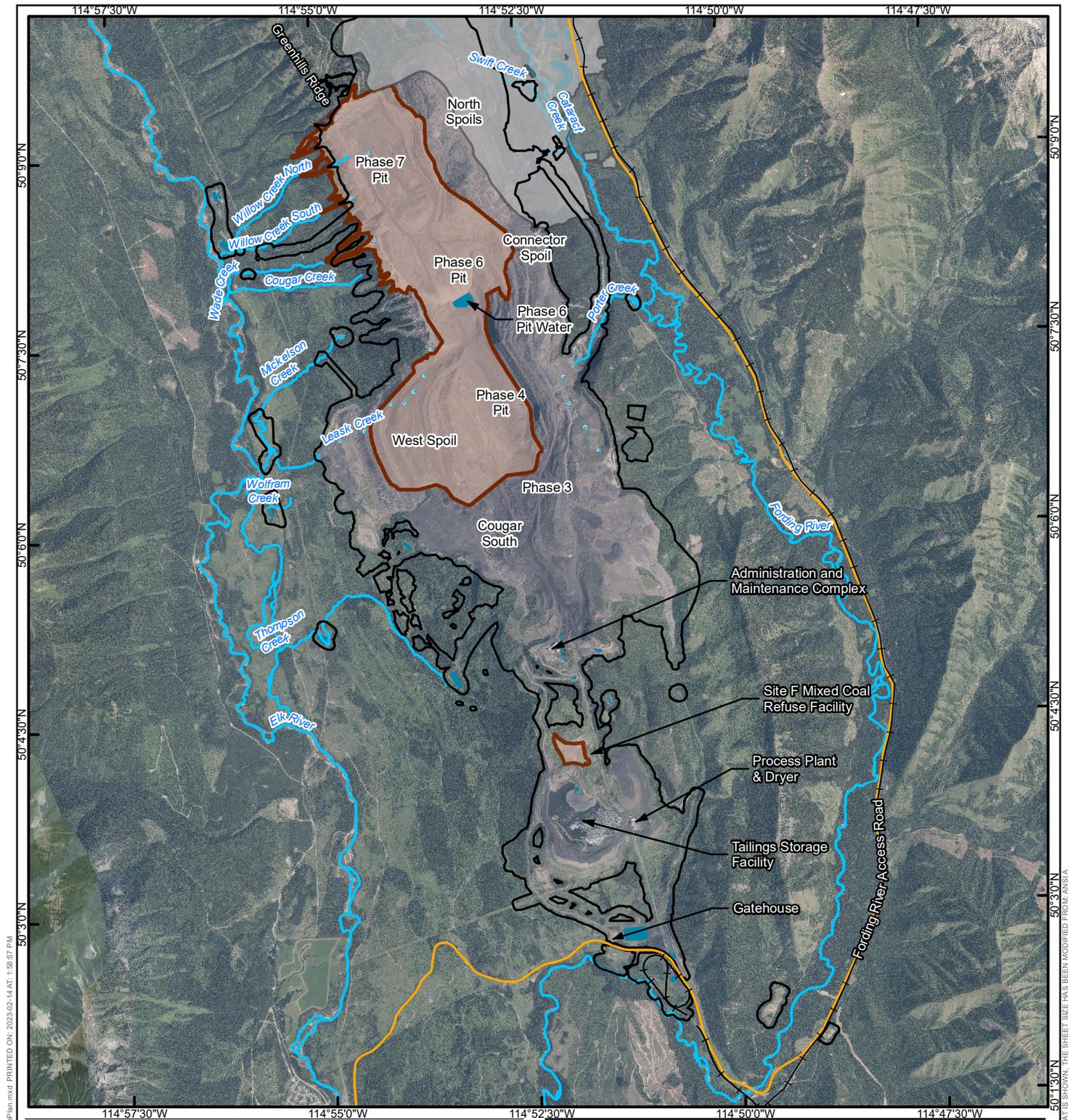
The GHO metallurgical coal mine opened in 1981 as a joint venture between Westar Mining and POSCO Canada Limited. It began operations in 1982. Ownership has changed multiple times. In 1997, the proponent received a Project Approval Certificate (PAC) (now known as an Environmental Assessment Certificate) under the *Environmental Assessment Act* (1994) to extend the life of the mine for 25 years and mine coal in two new pit areas, the Cougar South Pit and Cougar Main Pit. The Project Notification indicates that GHO now includes 5 pits: Cougar South, Phase 3, Phase 4, Phase 6, and Phase 7.

GHO is located approximately eight kilometres (km) northeast of Elkford on fee-simple (private) land owned by Teck. Coal is transported from GHO by rail to the coast of British Columbia (B.C.) for shipment to markets in Asia, Europe and South America and is used to produce steel. The current total production capacity at GHO is approximately 6 million metric tonnes of processed (clean) coal (Mmtcc). A map showing GHO in a regional context forms Appendix A of this report.

Teck's Project Notification states the Project will be integrated into the overall GHO mine plan and mine development with no change to annual production capacity. The Project would use all existing mining infrastructure, including mining equipment, access roads, power, site offices, process plant and water management infrastructure. There are no off-site project components associated with the Project. If approved via *Mines Act* permit amendment, the Project would make use of existing water management, including the Fording River Operations South Active Water Treatment Facility (FRO S-AWTF) to treat mine contact water pumped from GHO pit mining areas to the Swift and Cataract drainages which are subsequently treated by the AWTF.

As part of the Project, Teck proposes to:

- Reduce the permitted capacity of the existing West Spoil Phase 2;
- Include areas in the Project footprint to account for management of fly rock and cast over rock from mining activities;
- Increase existing coarse coal refuse storage capacity to approximately 1.5 Million cubic metres (Mm<sup>3</sup>);
- Keep the existing footprint of the Site F Mixed Coal Refuse Storage Facility; and,
- Maximize opportunities for in-pit backfill spoiling in the Cougar Phase 4 Pit, Cougar Phase 7 Pit and an extension of the existing Cougar Phase 6 Pit backfill spoil to accommodate waste rock associated with the Project.



PATH: G:\Data\Operations\GHO\Projects\2022\Cougar\_7\_2\WXD\EAO\_Notification\FIG\_4\_SitePlan.mxd PRINTED ON: 2023-02-14 AT: 1:08:57 PM  
 IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM A4

**LEGEND**

- ACCESS - PAVED
- FRO C-3 PERMIT BOUNDARY
- GHO C-137 PERMIT BOUNDARY
- PROJECT FOOTPRINT
- RAILWAY
- SEDIMENTATION POND
- SURFACE FLOW WATERCOURSE
- SUBSURFACE FLOW WATERCOURSE



0 0.5 1 2 3 Kilometres 1:80,000 METRES

**REFERENCE(S)**

BASE DATA AND IMAGERY (2022) OBTAINED FROM TECK RESOURCES LIMITED.  
 DATUM: NAD 83 PROJECTION: UTM ZONE 11

TECK COAL LIMITED

PROJECT  
 COUGAR PHASE 7-2 PROJECT

TITLE  
 GHO SITE PLAN

YYYY-MM-DD	2023-02-14
DESIGNED	RG
PREPARED	RG
REVIEWED	KB
APPROVED	ST

PROJECT NO.	PHASE	REV.	FIGURE
GHO-030-2	CG 7-2	1	4



Figure 1: GHO Site Plan

### 3.0 REVIEWABLE PROJECT REGULATION ASSESSMENT

The Project does not automatically require an environmental assessment as it does not meet applicable criteria under the RPR. GHO triggered a notification under Section 5(3) of the RPR as it is an existing project with a proposed modification that emits 125,000 tonnes or more per year of one or more GHGs directly from Project facilities, measured in carbon dioxide equivalents, determined in accordance with the [Greenhouse Gas Emission Reporting Regulation](#) (GGERR), B.C. Reg. 249/2015. See Table 1 of this Report.

On average, GHO emits about 254,000 tonnes of GHGs annually directly from Project facilities. If the Project is approved, GHO is estimated to emit about 266,000 tonnes of one or more GHGs annually from Project facilities; an increase of about 12,000 tonnes per year.

A modification to an existing project that emits 125,000 tonnes per-year or more is required to notify the EAO only for the first time an expansion of a given project exceeds this threshold. Once a notification has been provided for a project modification in relation to greenhouse gas emissions, no further notifications are required for subsequent modifications.

When determining whether GHO triggered a project notification, the EAO considered emissions from project facilities only as per the RPR that states emissions directly from project facilities are to be considered. The RPR defines facilities as “one or more physical works or structures that have been or will be constructed as part of a project.”

The EAO notes that there is a difference between how GHG emissions are calculated for evaluation against effects thresholds in the RPR compared to how emissions are calculated for reporting under the province’s GGERR. Under the GGERR, the province requires industrial facilities that emit 10,000 tonnes or more of carbon dioxide equivalent (CO<sub>2</sub>e) per year to report their emissions from project facilities as well as mobile equipment.

Table 1: Assessment of GHO against the applicable RPR criteria

Applicable RPR Criteria	Assessment of Project Against Criteria
Effects Threshold: Greenhouse Gas Emissions Section 4(a)	<u>Project falls below threshold.</u> GHO currently emits approximately 254,000 tonnes of GHGs annually from project facilities, which is below the threshold of 380,000 tonnes of CO <sub>2</sub> e per year.
Effects Threshold: Facilities located in area protected under the Protected Areas Regulation Section 4(b)	<u>Project does not meet threshold.</u> The Project does not include one or more facilities located, in whole or in part, in an area listed in the Protected Areas Regulation.
Effects Threshold: Area of Disturbance: Section 4(c)(i)	<u>Project falls below threshold.</u> The Project does not include 60 km or more of land that is to be developed for a transmission line, transmission pipeline, railway, public highway or resource road.
Effects Threshold: Area of Disturbance: Section 4(c)(ii)	<u>Project falls below threshold.</u> The Project is estimated to result in a footprint increase of 54.5 ha, which is below the reviewable threshold of 600 ha.
Project Design Threshold: Modification of an existing coal mine Table 6	<u>Project falls below threshold.</u> To meet the Project Design threshold E: <ul style="list-style-type: none"> <li>a coal mine must have a production capacity 250,000 or more tonnes per year, and</li> <li>the modification will result in the disturbance of an area of land that was not previously permitted for disturbance and is at least 50 percent of the area of land that was previously permitted for disturbance.</li> </ul>

	<p>Although GHO has a production capacity of approximately 6,000,000 tonnes per year and the Project will result in disturbance of an area of land that was not previously permitted for disturbance, the proposed modification is significantly less than 50 percent of the 4,053 ha authorized for disturbance by the <i>Mines Act</i> C-137 Permit (18.3 ha or 0.5 percent of the area of land that was previously permitted for disturbance).</p>
<p>Project Notifications: GHG emissions</p>	<p><u>Project triggers project notification.</u> GHO currently emits more than 125 000 tonnes directly from project facilities.</p>

## 4.0 PROJECT AUTHORIZATIONS

In April 1997, the Cougar South/main pits and west spoil at GHO received a PAC. Teck Resources purchased the mine and became GHO’s current PAC and permit holder. The Project does not require amendment of the PAC for the Project, as per Condition #1(a) and (b) and Condition #3:

Condition #1(a) states: *“The Proponent must cause the Project to be designed, located, constructed, operated, dismantled and abandoned in accordance with the documents outlined in Schedule “A” to this Certificate, collectively comprising the Project Report.”*

Condition #1(b) states: *“Notwithstanding Condition 1(a), if; prior to the commencement of construction of the West Spoil, the proponent proposes a significant change to the West Spoil, as described in Schedule A, and notwithstanding that the change is not a project modification subject to the provisions of the Environmental Assessment Reviewable Projects Regulation (B.C. Reg. 276/95). the Proponent must:*

- (i) *provide notice of the proposed change to the Executive Director, and;*
- (ii) *where the Executive Director, in consultation with the Proponent and the appropriate provincial authorities, considers that the change may have the potential for significant adverse effects, provide the Executive Director with plans, analyses, records and other information necessary for an effective assessment by the Executive Director of the proposed change.*

Condition #3 states: *“Notwithstanding Condition 1(a), but subject to Condition 1(b), the Proponent may request from authorities required to give approvals, licenses, permits or other authorizations under other enactments, variation of the design, construction, operation, and abandonment of the Project, in accordance with that authority’s approval process, provided that the variation is not a Project modification subject to the provisions of the Environmental Assessment Reviewable Projects Regulation (B.C. Reg. 276/95).”*

As indicated in Table 1 above, the Project does not meet applicable criteria under the RPR therefore does not require amendment of the PAC for the proposed modification as described by the Project.

The Project does require amendments to GHO’s *Mines Act* and *Environmental Management Act* permits. Teck submitted a Joint *Mines Act* and *Environmental Management Act* permit amendment Application (Joint Application) on February 6, 2023, to the Ministry of Energy, Mines and Low Carbon Innovation (EMLI) and the Ministry of Environment and Climate Change Strategy (ENV), to obtain the required amendment approvals. Because this modification is subject to notification under the Section 10 of the Act and the RPR, a decision by the CEAO under Section 10 of the Act is required before amendments to permits will be in force if amendments are granted prior to the CEAO’s decision.

The Joint Application was referred to a Mine Review Committee (MRC) established by the Chief Permitting Officer from EMLI under the *Mines Act* to facilitate the coordinated authorizations process for the Project. An MRC facilitates the review of the permit amendment Application by multiple ministries, Indigenous nations and other reviewers. Approval of amendments to permits must be granted before any modification works in, on, or about a mine can occur.

A list of the key permits, licenses and other authorizations that have been granted for GHO, along with information regarding authorizations required for the proposed Project is included in Table 2.

Table 2: GHO's Permits, Licenses, Tenures and other Authorizations

Permits, licenses, tenures or other authorizations	Issuer	Status
<i>Environmental Assessment Act (1994)</i> PAC M97-01	Environmental Assessment Office	PAC M97-01 was issued to develop the Cougar South/ Main Pits and West Spoil at GHO in 1997. Teck has not indicated that it would require an amendment to the M97-01 for the proposed works.
<i>Mines Act</i> C-137 <i>Mines Act</i> Permit	Ministry of Energy, Mines, and Low Carbon Innovation	Two letter amendments were issued in 1980 approving pre-construction work and pre-production reclamation permit. The C-137 permit was signed by the Minister in 1981. A permit amendment is required to authorise mining activities associated with the Project (including Early Work activities) and changes to the C-137 <i>Mines Act</i> Permitted Mine Area. The permit amendment is under review by the MRC.
<i>Environmental Management Act</i> Permits 6248, 6249, 6725, 6764, 107517	Ministry of Environment and Climate Change Strategy	Permit 6249 was issued in 1982 authorizing discharge emissions to the air from a coal preparation plant and related mining facilities. Permit 6725 was issued in 1983 authorizing discharge of waste. Permit 6248 (issued in 1982), permit 6764 (issued in 1984) and permit 107517 (issued in 2014) authorized the discharge of effluents to the land and water.  A clause amendment to Permit 107517 to include GHO pit water as a source to the Swift Cataract drainages is required and is under review by the MRC.
<i>Water Sustainability Act</i> Short Term Use Approval File 4007999, 4007680, 4007511, 4007132, 4006962.	Ministry of Forests	The Ministry of Forests Water Sustainability branch has been issuing Short Term Use (STU) Approvals to GHO for water use instead of water licence since 2017. The current STU approval will expire on August 5. The Water Sustainability branch is currently working with Teck on its STU application. A STU is required for GHO to be able to divert, store and use specific quantities of water for GHO.

## 5.0 LEGISLATIVE AND POLICY FRAMEWORK FOR GREENHOUSE GAS EMISSIONS MANAGEMENT

The *Climate Change Accountability Act* sets legislated GHG reduction targets, including a provincial target of reducing emissions by 40 percent below 2007 levels by 2030 and to reduce emissions produced by the mining sector by 38-43 percent below 2007 levels by 2030. GHG emissions from vehicles, mills and processing plants are currently subject to the *Carbon Tax Act*, which applies a price on the use and combustion of fossil fuels.

As noted above, GHO is also subject to the GGERR. The Ministry of Environment and Climate Change Strategy (ENV) regularly publishes bulletins that can contain sector specific information. The most recent coal mining bulletin is dated December 17, 2021: [Reporting and control of on-site mobile fuel combustion emissions and fugitive coalbed methane](#) (GGIRCA Bulletin #017).

## 6.0 EAO ENGAGEMENT

The EAO invited the public and the following Indigenous nations, local governments, health authorities, and provincial government agencies to comment on the Project Notification during a 21-day First Nations and Public Engagement Comment Period, held from March 22, 2023, to April 12, 2023.

First Nations:

- ʔakisq̓nuk;
- ʔaq̓am;
- Kainai Nation;
- Ktunaxa Nation Council (KNC);
- Piikani Nation;
- Shuswap Indian Band;
- Siksika Nation;
- Skwl'ax te Secwepemcul'ecw;
- Stoney Nakoda Nations;
- Tsuut'ina Nation;
- Yaqan nuʔkiy; and,
- Yaqit ʔa·knuq̓i't.

Local Governments and Health Authorities:

- District of Elkford;
- District of Sparwood;
- Interior Health; and,
- Regional District of East Kootenay.

Provincial Government Agencies:

- Ministry of Energy, Mines and Low Carbon Innovation;
- Ministry of Environment and Climate Change Strategy;
- Ministry of Forests; and,
- Ministry of Water, Land, and Resource Stewardship (WLRS).

The EAO received a total of 14 comments from KNC, Stoney Nakoda Nations, Kainai Nation, Siksika Nation, Tsuut'ina Nation, WLRS, Interior Health, the District of Elkford, and one member of the public. Three of these comments were submitted through the First Nations and Public Comment Period and are posted to the [EAO Project Information Centre \(EPIC\)](#) website. All others were submitted directly to the EAO via letter/email. [See Section 8.0](#) of this Report for a summary of the concerns raised and Teck's responses.

## 7.0 TECK COAL LTD.'S ENGAGEMENT

Teck's Project Notification explained Teck initiated consultation in 2018 regarding sustaining GHO production through to 2028 with KNC, local communities and Provincial agencies. Project-specific engagement began in November 2021. Teck stated it plans to engage and update Indigenous nations consistent with existing agreements and practices. Prior to Teck's submission of the Project Notification, Teck did not receive any Project-related feedback on GHG emissions from First Nations.

## 8.0 SUMMARY OF POTENTIAL ISSUES

### 8.1. Greenhouse Gas Emissions and Air Quality

#### 8.1.1. Teck's GHG Reduction Plans

During the initial review of Teck's Project Notification, the EAO required additional information on GHO's GHG reduction plans including GHG reduction measures to align with provincial GHG emission reduction targets and schedules. On May 17, 2023, Teck submitted additional GHG information, which can be found in Appendix B of this Report. A summary of the information is provided below.

Teck has stated its Climate Change Strategic Priority now includes achieving net-zero Scope 2 emissions (indirect emissions from the generation of purchased energy) by 2025 and net-zero Scope 3 emissions (emissions from sources owned or controlled by other entities downstream of Teck's value chain including the transportation and use of Teck's products) by 2050, and is currently implementing the following GHG reduction activities:

- Switching from coal to natural gas run process plant dryers, reducing GHO dryer carbon intensity by 49 percent;
- Reducing length of the haul distance between the mining areas and where mine rock is placed; and,
- Switching GHO employee transport buses from diesel to electric (estimated to save 150 tonnes of carbon dioxide per year).

Teck has also planned the following GHG reduction activities at GHO:

- Switching to use of electric pick-up trucks (Teck is currently piloting the use of electric pick-up trucks at their operations in the Elk Valley and if successful, will be implemented at all Teck operations);
- Deployment of 30 zero emission electric haul trucks (trials beginning at GHO in 2026);
- Potential use of an electric trolley-assist system for haul trucks;
- Expanding the use of dewatering technology to reduce use of natural gas needed to fuel coal dryers (studies are underway to determine the feasibility);
- Commencing studies on methane emissions associated with coal formations at mines in the Elk Valley; and,
- Implementing the Cougar Phase 7-2 Project which would reduce the average haul distance and emission for diesel per unit of material mined by 16 percent.

Teck's GHG information also described how their climate change objectives applied throughout their steelmaking coal mine operations align with the initiatives of the Climate Action Secretariat (CAS), including piloting the use of hydrogen locomotives to transport steelmaking coal from the Elk Valley to the West Coast of B.C., deploying energy efficient bulk carriers for shipments of coal from Vancouver to international destinations, deploying two electric tugboats and piloting a Carbon Capture Utilization and Storage project with support from CleanBC.

Teck stated that if GHO is still in production by 2030 and if the current emissions profile is maintained, it is anticipated that it would make up approximately one percent of the 2030 Provincial target budget. The EAO is not aware of plans for Teck to further expand GHO.

Teck explained they formally evaluate the progress of their initiatives on an annual basis that are publicly available on their annual Sustainability Report. Teck reported their engagement on GHO climate change related actions is largely done on a project-by-project basis with KNC and other interested Indigenous nations.

### 8.1.2. Response from Climate Action Secretariat (CAS)

CAS reviewed Teck's GHG information and stated that the information provided a better understanding of Teck's efforts to mitigate the emissions and reduce transportation and facility stationary combustion emissions. CAS noted that fugitive methane has been included in their annual GHG emissions reporting as per the GGERR and that a significant proportion (approximately 66%) of GHO's GHG emissions come from fugitive methane — a source that needs to be accurately quantified to inform appropriate and effective mitigation but is difficult to do so. CAS stated they are working with multiple stakeholders to better understand methane emissions from coal production and highlighted that the CleanBC Roadmap to 2030 has committed to near elimination of industrial methane emissions by 2035.

CAS noted that the mitigations in Teck's GHG information were related to mobile equipment; however emissions from mobile equipment were not included in the GHG emissions assessment included in the Project Notification. As such, the measures identified will not address the annual GHG emissions reported in the Project Notification. However, mobile equipment is a significant source of overall emissions in mining operations; the measures identified will support emissions reductions from GHO broadly, if not the Project specifically. As discussed in [Section 3.0](#) of this report, the EAO only considers emissions from project facilities and not other sources including mobile equipment as part of the total emissions when interpreting Section 5(3) of the RPR, but understands that any mitigations Teck proposes to reduce emissions from mobile equipment will reduce GHO's and the Project's GHG emissions overall.

### 8.1.3. Comments from Stoney Nakoda Nations on GHG Emissions

The Bears paw First Nation, one of three Stoney Nakoda Nations, noted that it is unclear how the Project would contribute to Teck's climate strategy to achieve net-zero emissions by 2050 and a 33 percent reduction in carbon intensity of operations by 2030. Bears paw Nation further noted that it is unclear how emissions would impact human health and the health of Indigenous harvesters in the surrounding area.

Teck responded by explaining they have considered the increase in GHG emissions resulting from the Project and acknowledged that total GHG emissions from GHO would be extended by a year to 2028. However, Teck explained the Project represents an improvement in carbon intensity of mining at GHO by 16 percent over current operations (by reducing the average haul distance and emission for diesel per unit of material mined). Teck further highlighted many of the current and planned actions listed in [Section 8.1.1](#) of this Report.

### 8.1.4. Comments from Interior Health

Interior Health raised concerns that the proposed expansion may contribute to adverse cumulative effects on air quality around the Project location due to GHGs and fugitive dust.

Teck responded by confirming an air quality assessment has been completed that considered Project emissions of particulate matter, carbon monoxide, sulphur dioxide, and nitrogen dioxide as well as greenhouse gases. The assessment showed that the Project may result in an increase in facility-wide emissions by 8 percent to 27 percent related to a forecasted increase in truck haul. However, the effect of dust generated on roadways on air quality tends to be limited to about 150 to 200 metres downwind and therefore, the Project is not expected to result in measurable air quality effects at the nearest public receptors at Elkford, located 6 km south of GHO.

Teck further explained that because the Project is not expected to result in measurable air quality effects or deposition outside the Project footprint or at the nearest public receptors located at Elkford, potential effects from air quality to human and wildlife are expected to be negligible.

The Project's potential effects on air quality will also be considered in the Joint Application process. According to the Joint Application, Teck will provide project-related effects on air quality using several sources of air emission modelling including coal extraction activities (e.g., drilling, blasting, bulldozing), material processing and handling, diesel equipment, haul truck (including exhaust, road dust and road grading activities), onsite employee transport and service vehicles and train idling at rail loadout.

#### 8.1.5. EAO's Assessment

The EAO notes that the Provincial Government has enacted climate action legislation that frames B.C.'s approach to reducing emissions and provides the regulatory and policy tools, including the CleanBC Plan, to manage provincial GHG emissions and ensure it will achieve its reduction targets. This includes the GGERR, which requires Teck to report its GHG emissions to ENV each year and that they be verified by an independent third party. The EAO notes that the CleanBC Roadmap to 2030 commits to a near elimination of industrial methane emissions by 2035; this forthcoming policy includes fugitive methane emissions from the mining industry and will further reduce GHG emissions from GHO.

The EAO considered the increase in GHG emissions resulting from the Project and acknowledges that total GHG emissions from GHO would be extended by a year to 2028. However, the Project's annual increase in GHG emissions is small and represents an improvement in carbon intensity of mining at GHO by 16 percent over current operations. The EAO notes that the Project Notification process does not take into consideration the existing GHG emissions from GHO.

Given Teck's existing and planned GHG reduction strategies, B.C.'s current and planned policies, and the results of the air quality assessment, the EAO is encouraged that the Project's GHG emissions are being managed and that other initiatives being evaluated by Teck have the potential to offset any potential increase in emissions from the Project. Therefore, the EAO anticipates the Project's GHG emissions will have a low likelihood of causing significant adverse effects.

## 8.2. Reviewable Projects Thresholds

### 8.2.1. Comments from KNC

KNC noted that since 2001, the permit area has increased by 52 percent (2,669 ha in 2001 to 4,053 ha in 2023), that if each separate modification was requested at the same time would exceed the RPR criteria for a coal mine that has a production capacity of 250,000 or more tonnes per year, and the modification would result in the disturbance of an area of land that is at least 50 percent of the area of land that was previously permitted for disturbance. Teck responded that this Project does not trigger an EA under the *Environmental Assessment Act*.

KNC further noted that Teck is likely planning to expand GHO coal production into its probable reserves for another 40 years and that this should be considered as part of the EAO's decision making on whether the Project is significant enough to be reviewable.

### 8.2.2. EAO's Assessment

The EAO agrees that this Project does not trigger an EA, as discussed under [Section 3.0](#) of this Report. The EAO also notes that GHO has been through multiple *Mines Act* permit amendment processes, which allows ministries, Indigenous nations

and local governments, and other reviewers to jointly review applications. By pursuing permit amendments without amendment of the PAC, Teck is acting in alignment with its PAC conditions, as discussed in [Section 4.0](#) of this report.

The EAO is cognisant that major mine modifications and upgrades are typically completed in a staged approach as market conditions, capital and mine planning allows. Given the limited information Teck has provided regarding future proposed work, the EAO views further expansion of GHO as speculative at this time; however, the EAO acknowledges KNC's concern specifically in regard to the potential for incremental cumulative effects from multiple expansions without a comprehensive assessment of cumulative effects.

## 8.3. Water Quality

### 8.3.1. Comments from KNC, Tsuut'ina Nation and Interior Health

KNC raised concerns with the cumulative impacts from the combined GHO and Fording River mines, which both drain into the Fording River. KNC noted that there is a water quality monitoring site on the Fording River (GH\_FR1), which consistently reports seasonal exceedances in selenium despite the FRO South Active Water Treatment Facility (FRO-AWTF-S) being operational. KNC further noted that the project description mentions that the Project would make use of existing water management structures, including FRO-AWTF-S as a mitigation for water pumped to Swift Creek at FRO. However, to KNC's knowledge, mine influenced water from the Cougar pit phase 7 is generally pumped to the west to Willow Creek and would remain untreated. A better understanding of water management strategies was requested by KNC, especially considering the high volume of waste rock associated with the Project.

Tsuut'ina Nation also highlighted concerns regarding the Project's impacts on water quality with focus on the potential for cumulative impacts to aquatic life and riparian health.

Interior Health expressed concern regarding community drinking water systems, groundwater wells, and surface water systems located near and downstream of the Project location. Interior Health stated the Guidelines for Canadian Drinking Water Quality and British Columbia Source Drinking Water Quality Guidelines indicate that multiple chemicals from mining activities may enter water systems downstream of the Project including Arsenic, Cyanide, Manganese, Selenium, and Strontium.

Teck responded by stating the level of effect from all contaminants of concern in the water will not change as compared to current conditions. Regarding post mine closure impacts, Teck confirmed that in the far future as part of the mine closure plan (year 2180) Cougar Phase 7 Pit is planned to discharge to Willow Creek and Phase 6 Pit is expected to discharge to Leask Creek, both of which are assumed to be untreated, and the water quality assessment considered this.

In their Joint Application, Teck has proposed to make use of existing water management infrastructure, including the FRO S-AWTF to treat mine contact water pumped from GHO open pits including Phase 7 to the Swift and Cataract drainages which are subsequently treated by the FRO S-AWTF. The EAO understands that ENV and EMLI will consider the potential impacts to water quality, aquatic life and riparian health as well as proposed mitigation measures by Teck during the review of the Joint Application that is currently under review by the MRC.

Teck further explained that they have conducted a quantitative human health risk assessment for exposure to surface water for the downstream receiving environment, considering the cumulative effects of existing mine operations plus the Project. This assessment has been provided as part of the Joint Application under review by the MRC.

Teck confirmed there are no groundwater wells or surface water intakes for drinking water near GHO. Teck stated the Municipality of Elkford takes water from groundwater wells which are outside the Project's area of groundwater

influence. The quantitative human health risk assessment focused on recreational use of the creeks in the vicinity of the Project. Teck found the human health risks are found to be negligible if existing mitigation is maintained.

### 8.3.2. EAO's Assessment

The EAO recognizes the ongoing water quality challenges in the Elk Valley resulting from decades of coal mining. In 2013, the B.C. Minister of Environment issued a Ministerial Order to Teck, owner of the active coal mines in the Elk Valley to develop an Area Based Management Plan. Following approval of Teck's Elk Valley Water Quality Plan, key commitments and requirements were incorporated into a new valley-wide waste discharge permit, including the need to implement water treatment facilities. The FRO-S AWTF began operations in mid-2022. Since that time, both average selenium results show improvements from the previous two years; however, the EAO acknowledges that contaminate concentrations are not consistently below permit limits due to multiple factors. Nevertheless, average results are promising, and ENV expects water quality to continue to improve as additional mitigations are applied.

The EAO acknowledges that there remains uncertainty regarding the significance of the incremental and cumulative effects of the Project on water quality considering the effectiveness of the ABMP to date. Nonetheless, given that potential impacts to water quality, aquatic life and riparian health will be considered as part of the Joint Application process, the EAO is of the view that the Project is not likely to cause significant adverse effects on water quality after considering the mitigation measures that will be required by ENV and EMLI as part of the Joint Application process.

## 8.4. Ground and Surface Water Quantity

### 8.4.1. Comments from KNC

KNC raised concerns regarding impacts on water quantity in the area as water is removed from the Fording River catchment restricting flow for fish passage of the Westslope Cutthroat Trout. As part of the Project, Teck has proposed to expand the depth of the Phase 7 pit from its current elevation to approximately 1525 metres above sea level. The permitted bottom elevation has the potential to increase groundwater seepage by 280 percent. This represents a significant percentage higher than the 35 percent threshold for modifications to existing operations to Water Management Projects listed in Section 5, Table 9 of the RPR.

Teck responded that groundwater quantity from the proposed open pit and spoils associated with the Project were evaluated to predict future groundwater conditions and to quantify changes associated with implementation of the Project relative to existing conditions. Teck explained that the groundwater in bedrock flows away from the pits to the east and west with a component of groundwater flow away from Cougar Phase Pit 4 to the south and toward Cougar Phase 7-2 Pit from the north.

Teck stated that groundwater seepage was also assessed, which found an incremental increase of groundwater seepage of 4 litres per second. Teck indicated that flows in the Fording River are expected to remain the same during low flow periods but flows at Leask Creek and the Elk River would be reduced during these months because of flows being direct to Swift Creek instead of Leask Creek.

Teck also considered the applicability of Water Management Project thresholds in the RPR and confirmed that the Project does not propose new or modifications to dams or dikes or an increase to the amount of flooded area of a reservoir, and though the Project would make use of the existing Tailings Pond at GHO, as a mine, it is not reviewable under the Act.

### 8.4.2. EAO's Assessment

The Ministry of Forests' (MOF) Water Sustainability Branch regulates GHO's water use through short term water use (STU) approvals. The Water Sustainability Branch has been issuing STUs to GHO for water use since 2017. There have been concerns from MOF and First Nations on the impacts of mining operations on fish and fish habitat in the Upper Fording River via water withdrawal and hydrological and hydro-geological regime change. More evidence is needed to identify and assess impacts, as well as mitigation strategies. The Water Sustainability Branch advised EAO that Teck has been conducting research on this issue (such as a project specific Environmental Flow Needs (EFN) assessment and research on interactions between surface and ground water) to meet regulatory requirements. The current STU approval will expire on August 5, 2023. At present, a regional/watershed EFN study has been initiated by Teck to investigate the human impacts on the Upper Fording River, Fording River and Elk River. The Water Sustainability Branch will continue working with Teck to address concerns.

In addition, the EAO notes that potential impacts to water quantity will be considered as part of the Joint Application process. Teck indicated in its Joint Application that a hydrology effects assessment for the Project will be completed and that monitoring stations are active.

Given that the Water Sustainability branch is currently regulating GHO's water use and that impacts on water quantity will be considered as part of the Joint Application process, the EAO considers the potential for significant adverse effects from the Project on ground and surface water quantity to be low, after considering the mitigation measures being managed by the Water Sustainability Branch and through the Joint Application process.

## 8.5. Cumulative Effects

### 8.5.1. Comments from KNC, Bearspaw First Nation, Kainai Nation and Siksika Nation

KNC, Bearspaw First Nation, Kainai Nation and Siksika Nation expressed serious concern regarding the cumulative, transboundary, and direct impacts of coal mining in southeastern B.C., specifically around the expanding footprint of physical disturbance, adverse impacts to rivers and waterways and the corresponding impact to wildlife, medicinal and ceremonial plants, and harvesters that rely on these waterways. They indicated that all of these have adverse impacts on their Section 35 rights in B.C. and Alberta and requested that an environmental assessment or further review is required before proceeding to inform and understand the impacts of this expansion on their Section 35 rights and the overall cumulative impacts of coal mining in the area.

Teck responded to their concerns by committing to mitigations through the implementation of the Terrestrial Cumulative Effects Management Plan (TCEMP). This is a regional plan that follows the framework described by the Elk Valley Cumulative Effects Management Framework (EV-CEMF). Teck stated one of the more significant drivers of terrestrial cumulative effects in the Elk Valley is the fragmentation caused by increased road density which Teck is managing through the road rehabilitation program (over 30 km of roads have been rehabilitated so far with more being planned for 2023).

Teck also stated that it has a large native planting program for reclaimed areas, collecting native seed where possible to support the revegetation program. Teck expects that over time the reclaimed areas will progress towards similar natural ecosystems as were found previous to mining activities. Teck offered to learn more from Kainai Nation and Siksika Nation about plants of medicinal and ceremonial value to ensure they can be addressed in this approach.

Teck further explained that GHO has various wildlife management plans in place and that the Project would be carried out in alignment with the GHO's Wildlife Mitigation Management Plan, the GHO Biodiversity Management Plan, and other

regional Teck management plans including the Regional Bird Guidance Document, Regional Grizzly bear Denning Management Plan, Species Management Plans, as well as the Fish and Herptile Salvage Operations Guidance Document.

### 8.5.2. EAO's Assessment

The EAO acknowledges that Indigenous nations, stakeholders, proponents, and provincial and municipal governments have become increasingly aware of the need to effectively assess and manage cumulative effects in the Elk Valley as this region has been greatly impacted by historic and current coal operations. To address this challenge, the Elk Valley Cumulative Effects Management Framework (EV-CEMF) was launched to assess the historic, current, and potential future conditions of selected valued components and to support natural resource management decisions within the region. The EV-CEMF is jointly managed by the Ministry of Water, Land and Natural Resources and KNC. EV-CEMF working group members have a shared responsibility to evaluate existing conditions and develop objectives to address cumulative effects in the Elk Valley.

The EAO understands that the permit amendment decision makers will consider the 2016 Cumulative Effects Framework Interim Policy for the Natural Resource Sector prior to permit amendment decisions. To ensure consistency with this interim policy, the EAO also understands that permitting decision makers are encouraged to consider available cumulative effects-related information and analysis when making mining-related permitting decisions where the decision could potentially affect the condition of one or more cumulative effects framework values and the decision maker has adequate discretion to consider and address environmental effects as part of the decision.

Considering the TCEMP, the EV-CEMF, Teck's road rehabilitation program, reclamation programs, various wildlife management programs and that the 2016 Cumulative Effects Framework Interim Policy for the Natural Resource Sector will be considered by decision makers, the EAO is confident the Project's potential contribution to cumulative effects will be managed through the appropriate regulatory frameworks. The EAO therefore anticipates the Project's likelihood of causing significant adverse cumulative effects is low.

## 9.0 CONCLUSION

The EAO considered that:

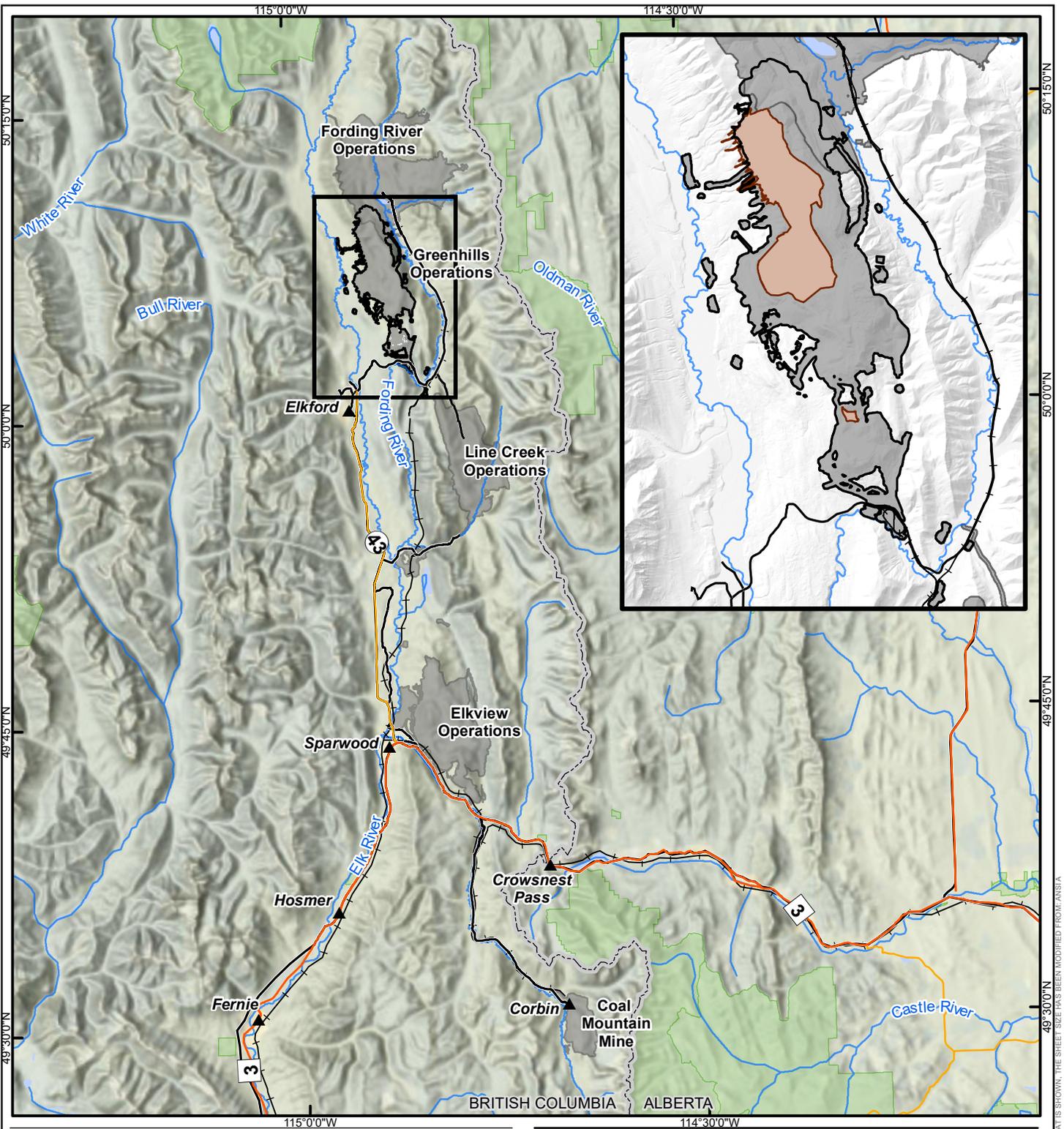
- Teck's responses to address concerns raised by First Nations, agencies and the public during the First Nations and Public Engagement Comment Period are sufficient and reasonable;
- The Project would have a minor increase in GHG emissions per year;
- Other initiatives being evaluated by Teck have the potential to offset any potential increase in GHG emissions from the Project;
- The potential effects of the Project, including water quality and quantity, will be managed through the appropriate regulatory and permitting processes;
- Potential cumulative effects of the Project, including potential effects on water quality, terrestrial valued components and First Nation rights will be managed through the appropriate regulatory and permitting processes;
- KNC, Bears paw First Nation, Kainai Nation and Siksika Nation requested that an environmental assessment or further review is required before proceeding to inform and understand the impacts of this expansion on their Section 35 rights and the overall cumulative impacts of coal mining in the area; and
- Teck will be required to obtain permits and authorizations for the Project that require Indigenous consultation, which include mitigation measures for environmental effects.

In consideration of the above, the EAO is satisfied that the Project has a low likelihood to cause significant adverse effects including on Indigenous nations and their rights.

The EAO therefore recommends that the CEAO, in consideration of this Report and Section 2 of the Act, make the determination that the Project, as described in the Project Notification, require no further review as per Section 10(4)(c) of the Act and may proceed to permitting with other agencies.

## 10.0 APPENDICES

### 10.1. Appendix A: Map of Project Location



**LEGEND**

- ▲ COMMUNITY
- SECONDARY HIGHWAY
- PRIMARY HIGHWAY
- ROAD
- RAILWAY
- PROVINCIAL BOUNDARY
- WATERCOURSE
- PROJECT FOOTPRINT
- WATERBODY
- PROVINCIAL PARK / PROTECTED AREA
- GHO C-137 PERMIT BOUNDARY
- MINE PERMIT BOUNDARIES



**REFERENCE(S)**  
 BASE DATA AND IMAGERY (2022) OBTAINED FROM TECK RESOURCES LIMITED.  
 DATUM: NAD 83 PROJECTION: UTM ZONE 11

**TECK COAL LIMITED**

PROJECT  
**COUGAR PHASE 7-2 PROJECT**

TITLE  
**PROJECT LOCATION WITHIN ELK VALLEY**

YYYY-MM-DD	2023-02-14
DESIGNED	RG
PREPARED	RG
REVIEWED	KB
APPROVED	SD

PROJECT NO.	PHASE	REV.	FIGURE
GHO-030-2	CG 7-2	1	2



IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSIA

25mm

Figure 2: GHO in the Elk Valley

## 10.2. Appendix B: Additional Information from Teck

**To:** Jessie Giles EAO  
**Date:** May 17, 2023  
**From:** Kristina Benoit; Scott Dressler  
**Cc:** Elise Matzanke EAO; Lucy Eykamp  
 Teck  
**Subject:** GHO Phase 7-2 Project – EAO GHG Notification Additional Information Request

### Introduction

On February 24, 2023, the Environmental Assessment Office (EAO) provided screening comments and requests for additional information on PN-007 Greenhills Operations (GHO) Cougar Phase 7-2 Project (the Project) Notification. Teck satisfied screening requests in March 2023. The information below is intended to satisfy the additional information requests:

56	Teck will also be required to provide addition information regarding any detailed GHG reduction plans for the life of the project, including but not limited to the following:
57	Identification of the measures that have been implemented, or are intended to be implemented, and the timeline for implementation, to ensure alignment with GHG emission reduction targets and schedules as set out in relevant Provincial statues and supporting policies;
58	What best practices and technologies have been implemented and/or are intended to be implemented, including the timeline, to reduce and minimize GHG emissions;
59	The process and frequency upon which the plan will be updated to ensure consistency with best practices or technologies and their technical and economic feasibility; and
60	Consultation that has occurred with Indigenous nations on the plan and how comments, if any, were considered and integrated or otherwise addressed.

### Addressing Comments 56 to 58

Sustainability is embedded in Teck's operational practices, and we have a long history of sustainability stewardship. Teck's sustainability strategy has eight strategic themes: health and safety, climate change, responsible production, our people, tailings management, water, biodiversity and reclamation, and communities and Indigenous Peoples. More details can be found at **Teck 2022 Sustainability Report**.

Teck acknowledges the importance of urgent action in response to climate change. We expanded our climate strategy and goals in early 2022 and our long-term strategic priority to achieve net-zero emissions at our operations by 2050 now includes a goal that focuses on achieving net-zero Scope 2 emissions by 2025. In addition, we announced our ambition to achieve net-zero Scope 3 emissions by 2050 with supporting short-term goal.

More details specific to decarbonization at our steelmaking coal operations and in particular GHO and the work Teck is advancing under our Climate Change Strategic Priority is provided below.

### Implemented and Planned Climate Action Measures

For Teck, there are four major areas of emissions sources that present opportunities for decarbonization and emission reductions: 1) power supply; 2) mobile equipment; 3) stationary combustion and process emissions; and 4) fugitive methane emissions. To decarbonize these emission sources and ultimately achieve our goal of net-zero, we are prioritizing activities to deliver cost-competitive reductions by focusing on tackling our most material sources of emissions first. We are actively evaluating existing solutions and monitoring emerging technologies to determine the current and future viability of the various options. Below is a summary of decarbonization activities Teck Coal and GHO has implemented or is in the process of implementing to reduce emissions from the above listed sources.

#### Currently Implemented

- Teck Coal Elk Valley Operations
  - One of the most effective emission reduction projects that Teck has implemented was switching to using natural gas instead of coal in our Process Plant dryers at our four operating steelmaking coal mines in the Elk Valley, British Columbia. Switching to this less- carbon-intensive fuel has dramatically reduced the GHG intensity of our coal dryers. Reduction of the coal dryer GHG intensity from the fuel switch for GHO specifically is quantified below.
  - Every year, each mine analyses its mine plan and looks for opportunities to reduce the length of the haul distances between the mining areas and the areas where mined rock is placed. When successful, this effort reduces the GHG intensity of our operations. These savings are not currently tracked but can have a significant impact on emissions. The practice of optimizing the haul distances is done annually however, due to the physical locations of the components of our mine plan, reductions relative to the previous years' haul distances may not always be achievable. These represent reductions of direct emissions (or Scope 1 emissions) from our mining operations.
- Greenhills Operations
  - The coal dryer at GHO is designed to be able to consume both coal and natural gas as fuel inputs to run the dryer. Prior to 2011, coal was the primary input. Beginning in 2011, Greenhills has steadily increased the use of natural gas over coal as the fuel input. By 2019, the drying process was completely run using natural gas and has not used coal as a fuel input since. By switching to natural gas as the sole fuel for coal drying, the carbon intensity of the dryer was reduced by approximately 49 percent from when coal was used as the primary fuel input.
  - Formerly, GHO operated a fleet of diesel buses to transport employees from Elkford to the GHO Main Office and Dry Change Building, an approximately 8-km route. Since 2021, Teck has replaced all diesel buses with electric buses which is estimated to save an estimated 150 tonnes of GHG measured in carbon dioxide (CO<sub>2</sub>e) annually.

## Early Deployment or Planned Actions

- Teck Elk Valley Operations
  - Teck is currently piloting use of electric pick-up trucks at our operations in the Elk Valley, with four Ford Lightning electric trucks in use and a further six are being added to the fleet in summer 2023. In addition, Teck will be acquiring and adding electric GM trucks to the fleet when they become commercially available in 2024. Should these prove to be successful, wider implementation of electric trucks and vehicles will occur at all our operations. Teck employs a large number of pick-up trucks at each one of its operations in the Elk Valley (greater than 100). For each truck that is replaced by an electric truck, up to 4.5 tonnes of CO<sub>2</sub>e would be saved annually.
  - Teck announced an agreement with Caterpillar in early 2022 to deploy 30 zero-emission, large electric haul trucks at its steelmaking coal mining operations. The technology will be trialed in a multi-phase development program beginning in 2024 with a single Early Learner unit at GHO. If the early learner unit is successful, it is expected that additional electric haul trucks would be tested in a production environment at GHO in 2026. Once commercialization of battery electric haul trucks is reached, Teck will determine timing and pace of roll out across our operations.
  - Teck has initiated feasibility studies to define the detailed design, construction plan and costs for a trolley-assist system that would be installed at Fording River Operations (FRO). The system has the potential to reduce fuel consumption on the same haul route by 93 percent. Teck has begun the project in partnership with CleanBC with the intent to begin installation in 2024. If successful, this technology could be implemented at all operations, including GHO.
  - Studies are underway to determine the feasibility expanding the use of dewatering technology in our coal Process Plants to reduce the amount of natural gas needed to fuel the coal dryers to remove excess moisture prior to shipment. Similarly, sites continue to advance efficiency improvements to reduce natural gas consumption in the coal dryers, including the exploring the use of alternative less carbon intense fuels.
  - Teck has commenced studies on methane emissions associated with the coal formations at mines in the Elk Valley. The initial analysis includes understanding technologies for methane quantification including surface and sub-surface approaches. Subsequent work to address fugitive emissions will be informed by the quantification studies.
- Greenhills Operations
  - Trialing deployment of electric haul trucks at GHO as outlined above.
  - The Cougar Phase 7-2 Project (the Project) improves the carbon intensity of mining at GHO. The total emissions for GHO increases due to the proposed extension of mining contemplated for Phase 7-2. However, due to a reduction in the average haul distances, emissions from diesel per unit of material mined would decrease by almost 16 percent with the Phase 7-2 Project.

The Province of BC has set emissions reduction targets for 2025, 2030, 2040 and 2050. The Cougar Phase 7-2 Project would extend mining at GHO from 2027 to 2028 and continue to employ all current emission reductions in place at GHO (such as use of use of natural gas in the coal dryer and electric buses) and new ones being trialed at GHO (such as the electric haul truck). The ability to apply some of the technologies and initiatives currently under evaluation at our mining operations in the Elk Valley specifically to the Cougar Phase 7-2 Project before it is complete will be limited, (with the exception that the Phase 7-2 Project in-itself allows for reduced haul distances and as such reduced emissions associated with hauling waste rock at GHO). At this time, the Project would be completed by 2028 and, without further approvals, mining activities at GHO would cease before 2030 and when some of these technologies and initiatives described above could be fully employed at GHO (such as full deployment of electric haul trucks or trolley assist). If Teck seeks further mining extensions to GHO and receives these approvals, these technologies, initiatives and processes would be implemented so as to achieve our overarching climate change goals.

### The Alignment of Teck Climate Change Objectives with the Initiatives of the Climate Action Secretariat

One of the advantages of our steelmaking coal operations when compared our international competitors is our access to low-carbon electricity in British Columbia where 98 percent of the electricity supplied is low- carbon, resulting in low Scope 2 GHG emissions (which are emissions associated with electrical supply). The majority of the decarbonization opportunities presented above for both GHO and all of our steelmaking coal operations are dependent on utilizing low-carbon electricity and will therefore increase our demand for low-carbon power. As power demands grow for Teck Projects throughout the Elk Valley, the ability to decarbonize is entirely reliant on clean power availability. Therefore, the risk of electricity constraints is one of the most critical barriers when evaluating the electrification of large GHG emitting sources at our operations.

In addition to reducing emissions at our operations, we have also been taking action to reduce emissions within our value chain (also referred to as Scope 3 emissions), with a focus on the most material value chain emissions coming from the transportation and use of our product. Some examples are:

- Earlier this month (April 2023), Teck struck an agreement with Canadian Specific Kansas City Limited (railway) to pilot the use of hydrogen locomotives to transport steelmaking coal from our operations in the Elk Valley to the ports on the West Coast of BC beginning in 2024.
- In 2021, we completed an agreement with Oldendorff for the deployment of energy-efficient bulk carriers for shipments of Teck steelmaking coal from the Port of Vancouver to international destinations, reducing CO2 emissions in the steelmaking coal supply chain. This industry-leading initiative is expected to achieve a CO2 emissions reduction of 30 to 40 percent for shipments handled by Oldendorff. The estimated savings can be up to 45,000 tonnes of CO2 per year, equivalent to removing nearly 10,000 passenger vehicles from the road.
- In 2022, Teck and SAAM Towage announced an agreement to deploy two electric tugboats at Neptune Terminal in Vancouver, British Columbia in support of Teck's climate goals. Under the agreement, SAAM will furnish two ElectRA 2300 SX tugs commencing operation during the second half of 2023 which are expected to eliminate over 2,400 tonnes of GHG emissions each year.

In June 2022, Teck announced a Carbon Capture Utilization and Storage (CCUS) pilot project at its Trail Operations

metallurgical complex in southern BC. The study is being done with support from CleanBC and operation is expected to begin in the second half of 2023. CCUS is the only abatement technology capable of decarbonizing the steelmaking industry at the rate and scale required by 2050 to limit global temperature increases to 1.5°C, and the pilot project at Trail Operations is expected to deliver valuable insights for our steelmaking coal customers and aid them in reducing the carbon intensity of their steelmaking processes.

As described above and in line with most of our peers in the mining industry, Teck closely examines current available technologies and new technologies as they emerge. Climate targets set by the Provincial government call for a reduction of 40 percent in GHG levels by 2030 and a 60 percent reduction by 2040, from a 2007 baseline. In absolute terms, the 2030 target is 39.3 million tonnes of CO<sub>2</sub>e. Teck is actively seeking to reduce GHG at all its operations however, if GHO is still in production by 2030 and if the current emissions profile is maintained, it is anticipated that it would make up approximately one percent of the 2030 Provincial target budget.

## Addressing Comments 59 to 60

### Program Implementation

Teck has established a core team of individuals dedicated to the effort to achieve our emissions reduction targets and the reductions that have been implemented or are in process of being implemented, as described above, are a result of this team and our commitment to GHG reduction and meeting our goal of net-zero by 2050. The team also uses the expertise of people at all operations to design and implement pilot projects and accepted technologies and practises. We routinely evaluate existing and emerging abatement opportunities as the pace of low-carbon technology maturation continues to accelerate, and as options that were not feasible a few years ago appear on the horizon. Teck formally evaluates the progress of the initiatives on an annual basis. Teck publishes updates on the program in our annual Sustainability Report. Teck began publishing its Sustainability Report in 2001 and these have been publicly available since that time.

### Consultation

Teck consults Indigenous Nations on its operations everywhere we work, with the focus of engagement depending on the interests, rights and title of the Indigenous Nation, and the specifics of the operations or projects Teck is proposing. For Teck Coal and GHO, at present our engagement on climate change related actions is largely done on a project-by-project basis, as individual projects require regulatory approvals and engagement and consultation with Ktunaxa or other interested Indigenous Nations. In 2023, Teck plans to raise this to Ktunaxa, the Shuswap Indian Band, and other Indigenous Nations that express interest in discussing Teck's climate action plan. We expect the focus of engagement will depend on each Indigenous Nation's interest.

## Conclusion

Teck is actively working to achieve its target of net-zero GHG emissions across all its operations, including our steelmaking coal operations in the Elk Valley by 2050 with multiple technologies and initiatives proceeding or planned, including several being trial and implemented at GHO. Our steelmaking operations in BC benefit from access to low-

carbon electricity. Use of this supply and other actions taken to date mean that Teck is one of the lowest carbon intensity producers of steelmaking coal in the world; GHO has been and will continue to be well below the global average. Technologies that are currently being investigated have the potential to significantly reduce emissions across our operations, including at GHO. Future reductions at Teck's BC steelmaking coal operations are reliant on the success of these trials and the upgrades to the BC electrical utility grid to enable their widespread adoption. As we note the Cougar Phase 7-2 Project is a one-year extension of operations at GHO and some of the technologies and initiatives noted above would only be relevant if Teck seeks future extensions for GHO.

Teck will welcome any feedback received on the GHG Notification in our carbon reduction plans.