

# **Socio-Economic Effects Management Plan – Annual Report**

**April 29, 2022**



**Teck**

The contents of this report have been authored by the Teck representatives listed below, and reviewed and endorsed by the Socio-Community and Economic Effects Advisory committee.



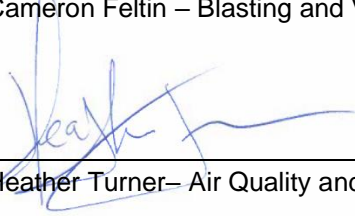
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Stephanie Najda R.P.Bio – Noise and Visual



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Cameron Feltin – Blasting and Vibration



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Heather Turner – Air Quality and Dust Control



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Kayleigh Montgomery – Socio-Community & Economic Effects and Feedback



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Dan Charest, RFT – Reclamation and Closure

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# 1 Introduction

Elkview Operations (EVO) has committed to annual summary reports on the following management plans as part of the Socio-Community and Economic Effects Management Plan (SCEEMP):

- Noise;
- Blasting and Vibration;
- Air Quality and Dust Control;
- Reclamation and Closure;
- Visual Quality; and
- Socio-economic Effects.

These management plans outline actions which EVO completes to mitigate impacts from the Baldy Ridge Extension Project (BRE). Below is a summary of the status of actions related to these management plans from the prior calendar year, any changes to planned actions, and feedback received from communities on those actions.

## 1.1 Project Status

During 2021, mining continued in Baldy Ridge 3 (BR3), Baldy Ridge 6 (BR6), and Natal Phase 2 (NP2) under the BRE permit. Site access to the Harmer Administration and Shop Complex remained on the same route as in 2020. Waste from BR6 was deposited on the Cedar North Spoil as permitted under BRE. In mid 2021, the Cedar North In-Pit Backfill Extension Project was approved, which includes expansion of waste placement within the Cedar North Spoil, integration of a suboxic zone in the spoil, and authorization for the Tunnel Water Diversion; in 2021 spoiling continued above the 1800m elevation in the Cedar North Spoil. Mining in BR3 continued and waste was hauled to the Erickson, Baldy Ridge 1 backfill, and Natal Phase 1 Backfill spoils. Mining in NP2 continued with waste hauling to the 1755 Spoil and Erickson. In late 2021, Teck received approval from the Environmental Assessment Office (EAO) for the new Administrative and Maintenance Complex (AMC), to be located mid-mountain at the Mannix Pad. Early works activities (tree-clearing, soil salvage, and earthworks) within the project footprint, and are anticipated to continue through 2022.

## 1.2 Feedback

Feedback can be defined as any comment received from Communities of Interest (COI) about Teck Coal Limited's (Teck) coal operations and associated activities, outside of regulatory approvals processes. Feedback may include questions, ideas, concerns, suggestions, complaints, or compliments.

Teck's Feedback Mechanism is available to all COI in the area of influence of Teck's coal operations. This includes, but is not limited to, Elkford, Sparwood, Fernie, the Crowsnest Pass, the Regional District of East Kootenay Area A, and the Ktunaxa Nation. The Feedback Mechanism applies to all activities related to Teck's coal operations including offices and personnel (employees and contractors).

Feedback from the community helps Teck understand its impacts to the community. Feedback provides information on whether mitigation measures are working, and if there are new issues that need to be addressed.

## 2 Noise

Daily activities at EVO include mining, processing, maintenance, coal storage and loading coal onto trains. All of these activities generate sound that may be audible beyond the mine boundary and could become more noticeable as ongoing mining activity progressively moves closer to Sparwood residences and infrastructure. The scope of the EVO Noise Management Plan (NMP) includes all mining activities, with the exception of blasting, that have the potential to generate noise, including:

- Site preparation and site access;
- Operation of heavy equipment in active mining areas (pits, haul roads, waste rock spoils, hopper, raw coal conveyance and breaker);
- Process plant activities; and
- Building and facility construction and operation activities.

EVO is committed to working with COI, and ensuring that noise levels generated from EVO do not exceed permissible sound levels defined within the NMP.

Through consultation, six noise receptor locations (Table 2-1) were selected based on the following general criteria:

- Feedback from the community and regulators
  - Baldy Ridge Extension Project Environmental Assessment (EA) Process;
  - Socio-Community Economic Effects Advisory Committee (SCEEAC) in 2019 when the NMP was last updated;
- Model predictions
  - The noise model created for the BRE EA;
  - Model updates in 2019, and receptor locations were adjusted to utilize public, rather than private land, and/or to provide easier access to existing power sources to operate the noise monitoring equipment;
- Accessibility and background noise
  - All monitoring locations need to be accessible; and
  - Monitoring locations need to have limited noise from non-mining activities which could impact the quality of the results.

An update to the noise model was completed in 2019 to determine predicted noise levels at all six receptor locations (Table 2-1). The results of the noise modelling showed that predicted sound level contributions from EVO are below the Permissible Sound Level (PSL) established for all six representative receptor locations for years 2020, 2021, 2022 and 2025.

The scope of the NMP includes mining activities that occur within the permitted active disturbance boundary of the operation or any construction activities that are directly associated with the operations that may exist outside of the disturbance boundary. The NMP encompasses all mining activities that have the potential to generate noise with the exception of blasting. The Blasting and Vibration Management Plan is discussed in Section 3 of this report. Specifically, the NMP focuses on the following mine-related aspects:

- Site preparation and site access;
- Operation of heavy equipment in active mining areas (pits, haul roads, waste rock spoils, hopper, raw coal conveyance and breaker);
- Process plant activities; and
- Building and facility construction and operation activities.

The volume of intensity of sound is measured in decibels (dB). Some examples of common reference sounds and their intensities are listed below:

- Library – 40 dB;
- Refrigerator – 50 dB;
- Normal conversation – 60 dB;
- Doorbell – 80 dB;
- Jazz concert – 91 dB;
- Power mower – 94 dB;
- Nightclub – 94 dB;
- Car horn – 100 dB;
- Ambulance siren – 120 dB; and
- Shotgun – 170 dB.

## 2.1 Noise Monitoring

EVO conducts continuous and intermittent noise monitoring in the community, results of which are used for:

- Future validations of the noise model;
- Community updates;
- Investigations into feedback; and
- Indicators that PSL may be reached or exceeded.

EVO’s noise assessment was based on the methods and limits outlined in the BC Oil and Gas Commission (OGC) *Noise Control Best Practices Guideline, March 2009* document (the BC OGC Guideline; BC OGC 2009) in the absence of directly applicable regulation, criteria, or assessment guidelines regarding mining noise in BC. The BC OGC Guideline outlines acceptable prediction methods, directions for the consideration of ambient sound, and requirements for the consideration of cumulative effects. The BC OGC Guideline was developed to establish reasonable levels around industrial facilities to reduce the effect of energy resource developments on the acoustic environment. The PSLs outlined in Table 2-1 were developed based on the BC OGC Guideline.

**Table 2-1 Noise level receptor locations**

Receptor Location	Daytime (07:00 – 22:00) PSL	Nighttime (22:00 – 07:00) PSL
R01– Michel Creek Road	63 dBA L <sub>EQ</sub>	53 dBA L <sub>EQ</sub>
R02 – Michel Creek Road	63 dBA L <sub>EQ</sub>	53 dBA L <sub>EQ</sub>
R03 – Cyprus Drive	58 dBA L <sub>EQ</sub>	48 dBA L <sub>EQ</sub>
R04 – Elk Valley Trailer Park	58 dBA L <sub>EQ</sub>	48 dBA L <sub>EQ</sub>
R05 – Alexander Creek North	50 dBA L <sub>EQ</sub>	40 dBA L <sub>EQ</sub>
R06 – Alexander Creek South	50 dBA L <sub>EQ</sub>	40 dBA L <sub>EQ</sub>

dBA = Aweighted decibel; L<sub>EQ</sub> = equivalent continuous sound level; PSL = permissible sound level

### 2.1.1 Continuous Noise Monitoring

Continuous noise monitoring is conducted at the R02 Receptor Location (Figure 2-1). The sound level meter collects the following sound data in 1-minute logging intervals:

- $L^1_{min}$ ,  $L_{max}$ ,  $L_{eq}$  sound levels;
- $L_1$ ,  $L_5$ ,  $L_{10}$ ,  $L_{50}$ ,  $L_{90}$ ,  $L_{95}$ ,  $L_{99}$  statistical sound levels<sup>2</sup>; and
- One third octave band  $L_{eq}$  sound levels from 6.3 Hz to 20 kHz.

The sound level meter also records digital audio signals simultaneously to facilitate the isolation and investigation of extraneous noise events. The noise monitoring data is reviewed and processed by a third-party Qualified Professional (QP). As previously reported to the SCEEAC, due to improper settings on the noise monitor, audio data was not recorded between April 12, 2021 and December 20, 2021. Sound level recordings were not affected, and continued to be recorded between April 12 - December 20, 2021. During this period, no community feedback related to noise was received.

A 01dB CUBE continuous noise monitor was deployed at R02 in November 2019. Challenges with this unit were identified in 2020, and a replacement unit (Brüel & Kjær model 2250 sound level meter) was installed while the original unit was sent for repairs. In late January 2021, issues with the 01dB CUBE noise monitor were again identified by Teck's third-party QP, and consequently, continuous noise monitoring data between November 2020 and February 8, 2021 was determined to be unusable. A replacement unit was deployed until the original unit was reinstalled, after it was determined that the noise monitor was incorrectly configured. EVO is conducting an internal investigation to determine root cause and corrective actions for these noise monitor issues.

Continuous noise monitoring data are available between February 8, 2021 and December 31, 2021. However, the continuous noise monitoring data set between February 8 - December 31, 2021 is not complete due to memory card issues: twelve night periods had less than five hours of valid one-minute data samples collected, and there were 40 night-periods as well as 43 day-periods where continuous noise monitoring data are unavailable. This issue was attributed to damage to memory cards through the over-writing process; after an investigation, it was determined that repeatedly over-writing this specific type of memory cards damages the cards and can cause data recording issues. The damaged cards have since been replaced, and EVO is currently assessing alternative options for data collection and recording. Data reviewed for 2021 indicate that all measured sound levels complied with PSLs, with the exception of two night-periods:

- February 2, 2021 – not mine related, attributed to passing traffic; and
- November 16, 2021 – unlikely to be mine related. The period of exceedance occurred between 02:00 am and 03:30 am. Normal operations were occurring at EVO during this period, and no feedback from the community was received. Due to the audio recording issue described above, there was no audio recording available to verify the event.

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<sup>1</sup>  $L_{min}$ , Minimum sound Level in dBA  $L_{max}$ , Maximum Sounds level in dBA  $L_{eq}$  Equivalent Continuous Sound Level

<sup>2</sup> Numerical value corresponds to % of time that a given sound level was exceeded (hypothetical example: for  $L_{10}$  – for 10% of the time, sound levels exceeded 50 dBA)

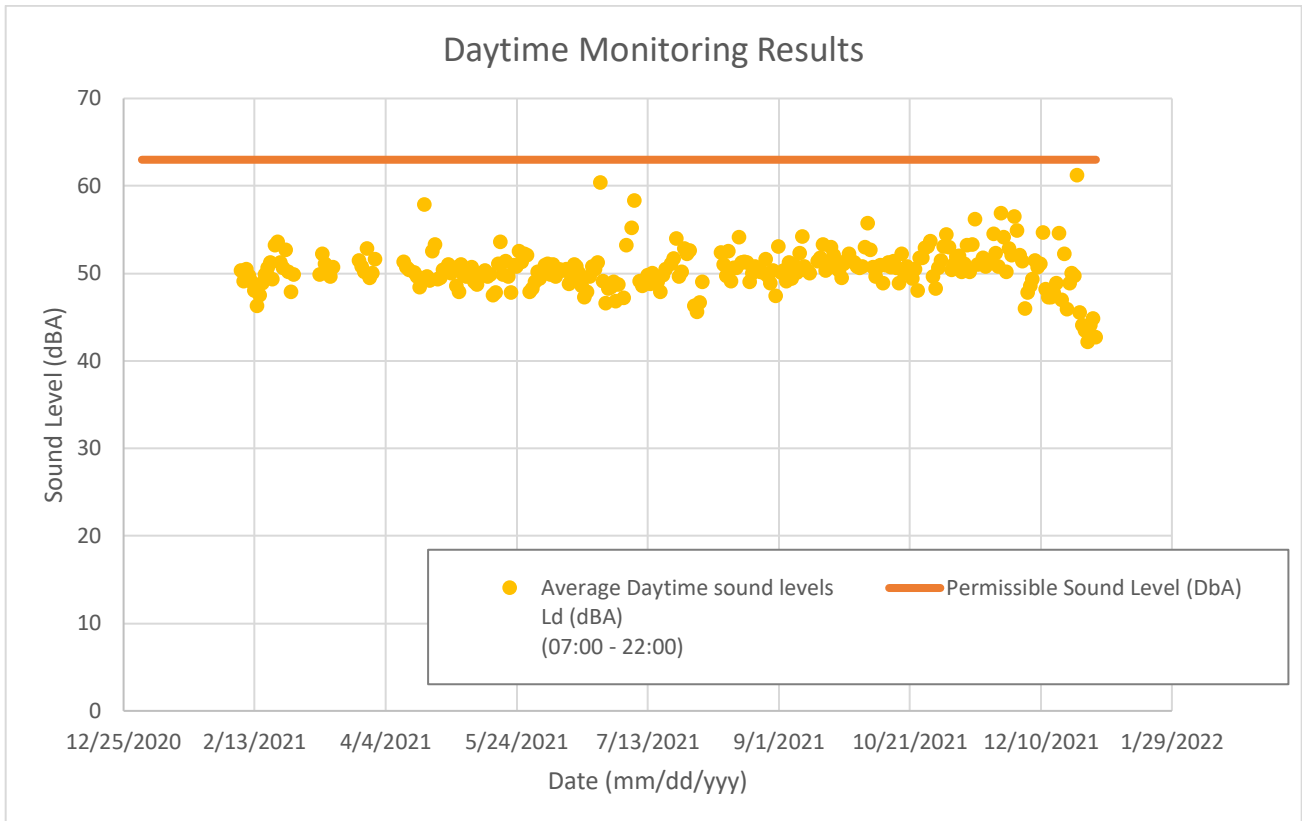


Figure 2-1 Validated average daytime sound levels measured at R02<sup>3</sup>

<sup>3</sup> Notes on data set (February 8 to December 31, 2021): two days had less than two hours of valid one-minute data samples collected during this period due to memory card issues, and 43 day periods are unavailable due to memory card issues.



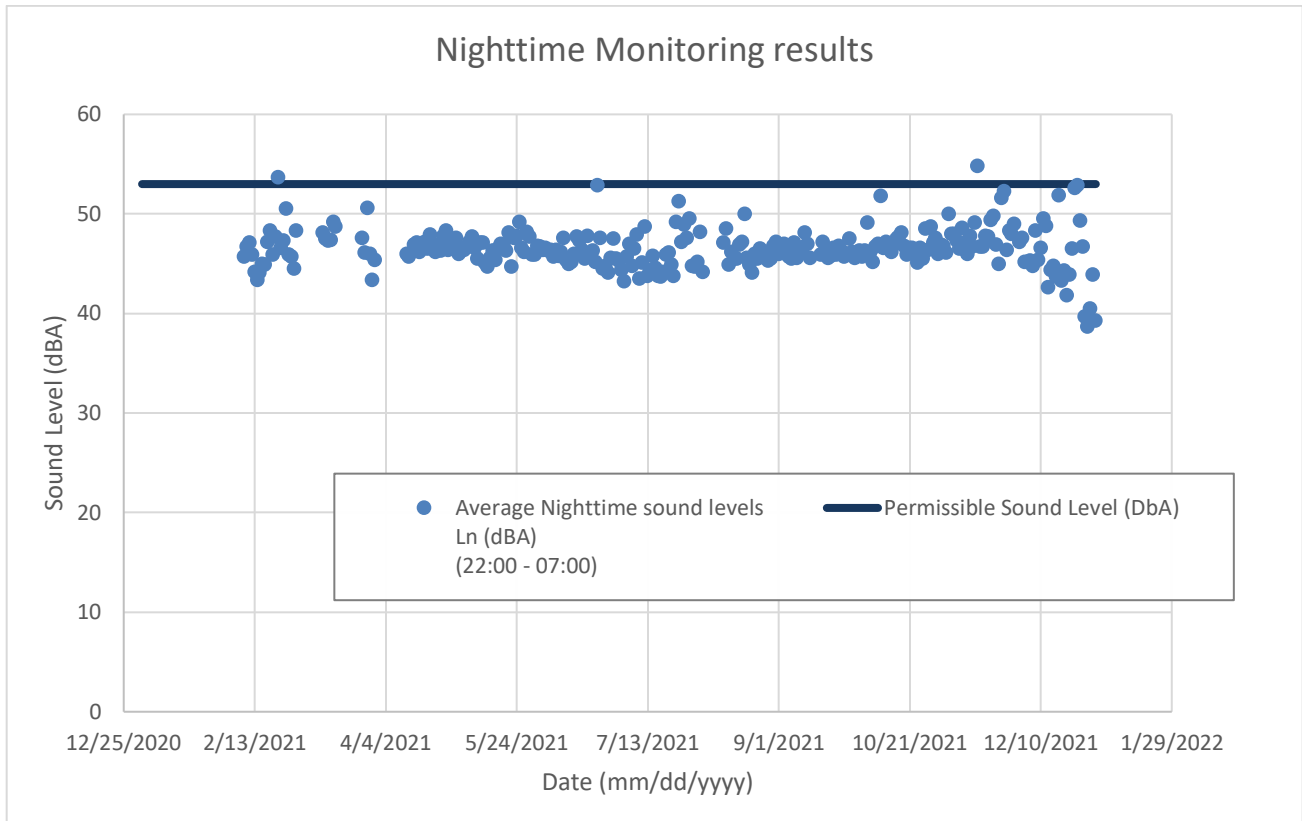


Figure 2-2 Validated average nighttime sound levels measured at R02<sup>4</sup>

### 2.1.2 Intermittent Noise monitoring

Intermittent noise monitoring consists of collecting 1-minute sound levels ( $L_{min}$ ,  $L_{max}$ ,  $L_{eq}$ , 1/3 octave band spectra and six statistical  $L_n$  levels), and continuous audio signals for no less than four daytime and nighttime periods at the four noise monitoring stations nearest to Sparwood (R01, R02, R03, R04). Noise sampling must occur between June 1 and September 30 annually.

In 2021, in accordance with the NMP, an annual intermittent noise monitoring survey was conducted over four daytime and nighttime periods between August 23 and August 27 at the four pre-defined locations (listed above).

Measured noise data were processed through isolation analysis to remove invalid or abnormal events which were due to EVO operations (e.g., vehicle traffic, weather events such as wind). At each monitoring location, valid 1-minute  $L_{eq}$  sound levels were used to calculate averaged hourly, daytime and nighttime  $L_{eq}$  sound levels. The averaged sound levels were summarized for each day and compared with the identified noise limits. Sound levels measured at R01, R02, R03 and R04 complied with the daytime and nighttime PSLs during the period of intermittent noise monitoring (Figure 2-3).

<sup>4</sup> Notes on data set (February 8 to December 31, 2021): One night period was excluded from analysis due to weather (wind/precipitation); twelve nights had less than five hours of valid one-minute data samples collected during this period due to memory card issues, and 40 night-periods are unavailable due to memory card issues.

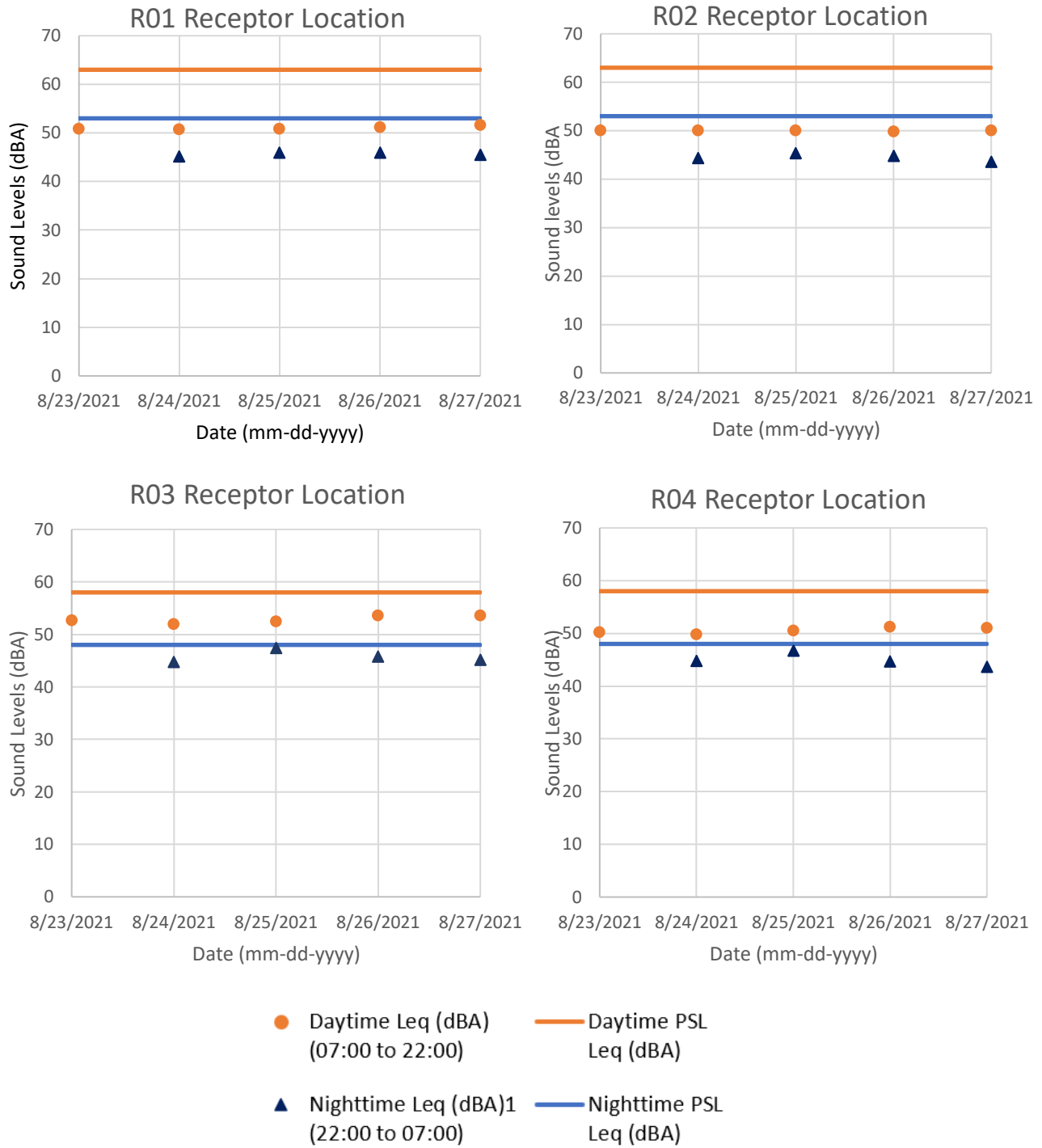
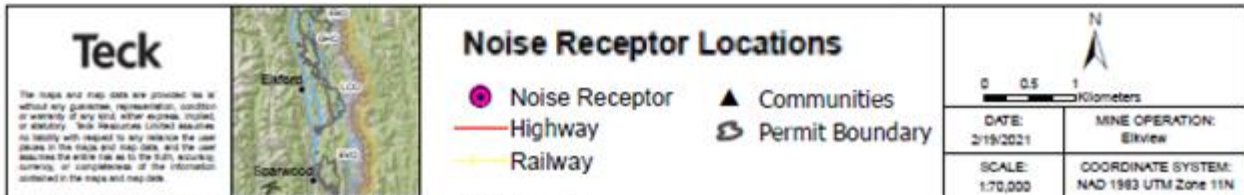


Figure 2-3 Intermittent monitoring daytime and nighttime sound levels measured by location



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Figure 2-4 Noise Receptor Locations

## **2.2 Feedback Received in 2021**

In 2021, Teck received zero submissions from the public regarding noise.

## **2.3 Changes and Updates to the Plan**

No changes were made to the NMP in 2021. In 2021, EVO initiated an update to the noise model to incorporate the following:

- The Production Increase Project at the Plant;
- Construction and Operation of the new Administrative and Maintenance Complex;
- A component of the Cedar North In-Pit Backfill Project; and
- Light vehicle and heavy vehicle (e.g., graders and water trucks) use on the front-side (area closest to the District of Sparwood) of EVO.

Noise model updates are anticipated to be completed in 2022, and will include extending model projections beyond 2025 (the current period for which the model was developed). An update to the NMP may be necessary once the noise model updates are completed.

### 3 Blasting and Vibration

Extraction of coal at EVO requires the blasting of hard rock layers. Due to EVO's close proximity to the community of Sparwood, special considerations with respect to blast design and practice are required. Mining is progressing closer to Sparwood and Teck continues with its commitment of mitigating impacts in a collaborative spirit with the community.

Several aspects of blasting require management to minimize the potential impacts to the receiving environment and communities specifically: fly rock, ground vibrations, air overpressure vibrations, blast fumes and dust.

Fly rock is material that is ejected into the air during a blast. Fly rock is managed through engineered blast design and processes with consideration of shot direction, material type, topography, borehole size, charge weight and proper burden/relief, stemming material and best practices. Blast clearance zones are used to manage the risk of injury to on site personnel, wildlife, equipment and infrastructure from fly rock.

Blasting related vibrations have two components outlined below: ground vibration and air over pressure. Both are managed through blasting practice and design.

Ground vibration is the blast wave front that is carried through the ground. Ground vibration is measured as peak particle velocity (PPV) in millimetres per second (mm/s). While inaudible, ground vibration can be detected by humans and, if they are not controlled could cause damage to property or infrastructure.

Air overpressure, also known as air blast, is the blast wave front that travels through the atmosphere as sound waves. Air overpressure is measured as pressure or decibels (dB(L)) and can be generally felt further away from the source than ground vibrations. The rate at which air blast overpressure levels diminish is dependent on distance, atmospheric conditions and topography. When a blast is felt or heard it is generally due to the air blast overpressure and not ground vibration as ground vibrations diminish closer to the source.

An adaptive management approach is applied to meet Teck's management objectives. This means, changes are made as site conditions and monitoring results dictate or as new technologies emerge. Through on-going blast monitoring, fly rock and blast vibration predictive models are updated. EVO can implement changes to blasting practices as mining progresses closer to residences and infrastructure. Monitoring and regular review of the results are the core adaptive management activity that helps guide improvement.

EVO has five monitoring stations for ground vibrations and air overpressure. Two of them are located within the community of Sparwood (S1 and S2), the third station (S3) and fourth station (S4) are between the general locations (S1 and S2) and the mine site (Figure 3-1). The fifth station (S5) is within line-of-site of Baldy Ridge 2 to collect and monitor air overpressure in the near-field. The purpose of this microphone installation is to assist in evaluating on-bench practices to continuously improve and adapt EVO's blasting standards on-site. The S3 and S4 locations were chosen to provide more data by being on site and closer to active operations. S4 and S5 are the only two monitors that are located within the C-2 Permitted Boundary. (See Figure 3-1 for a general overview map of locations at EVO).

In late 2021, all existing blast monitors were replaced with a new monitoring system (SIGICOM) which allows for automatic and permanent recording, documentation and display of blast vibrations and air overpressure. Each monitor and blast location are displayed on an interactive map that has integrated analysis functionality. The automated blast regression analysis updates the current attenuation formula to incorporate all recorded monitoring data from the far-field. The new monitoring system streamlines reporting and tracking of all blast related and non-blast related events.

The primary objective of the Blasting and Vibrations Management Plan is to blast safely and sustainably, while protecting property and minimizing the effect on residents, wildlife and infrastructure. This plan encompasses all blasting practices at EVO.

Specifically, the Plan focuses on managing the following mine blast-related aspects:

- Blast safely and control the generation of fly rock;
- Protect property and infrastructure from the potential effects of ground vibration;
- Protect property and infrastructure from the potential effects of air overpressure vibration;
- Manage nuisance vibration and noise effects to local community; and
- Minimize and avoid the generation of blasting related dust and fumes.

The plan also outlines ground vibration and air overpressure limits which are listed below in Table 3-1.

**Table 3-1 Ground vibration and air overpressure limits at EVO**

Component	Limit
Ground Vibration <sup>5</sup>	12.7 mm/s
Air Overpressure Limits <sup>6</sup>	133 dBL

Adam Bondi, P. Eng. (a qualified professional) reviewed the implementation of the Blasting and Vibration Management Plan. The qualified professional review concluded that Teck is in compliance with all conditions and actions outlined in the Blasting and Vibrations Management Plan.

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<sup>5</sup> U.S. Bureau of Mines: Investigation RI-8507 (1980).

<sup>6</sup> U.S. Bureau of Mines: Investigation RI-8485 (1980). dB = decibel; mm/s = millimetres per second; USBM = United States Bureau of Mines.

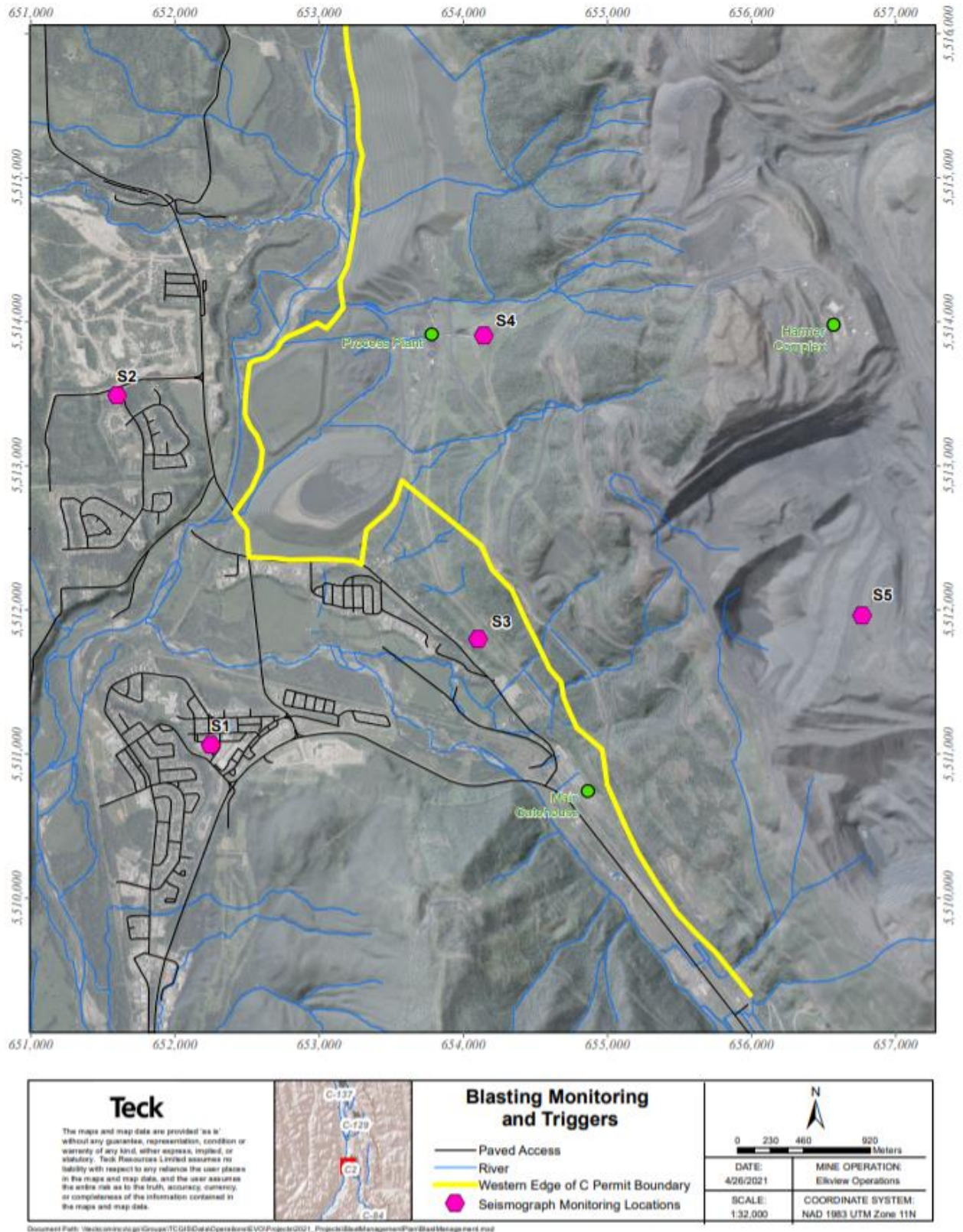


Figure 3-1 Seismograph Locations for Monitoring Blasting and Vibration at EVO

### 3.1 Air Overpressure and Vibration Monitoring

EVO conducted 181 blasts in 2021. The distribution of blasts are shown in Figure 3-2 below. In 2021, 123 blasts fell within the BRE footprint. Of the 123 blasts within the BRE footprint, 10 blasts were in NP2, 39 in BR3, and 74 in BR6.

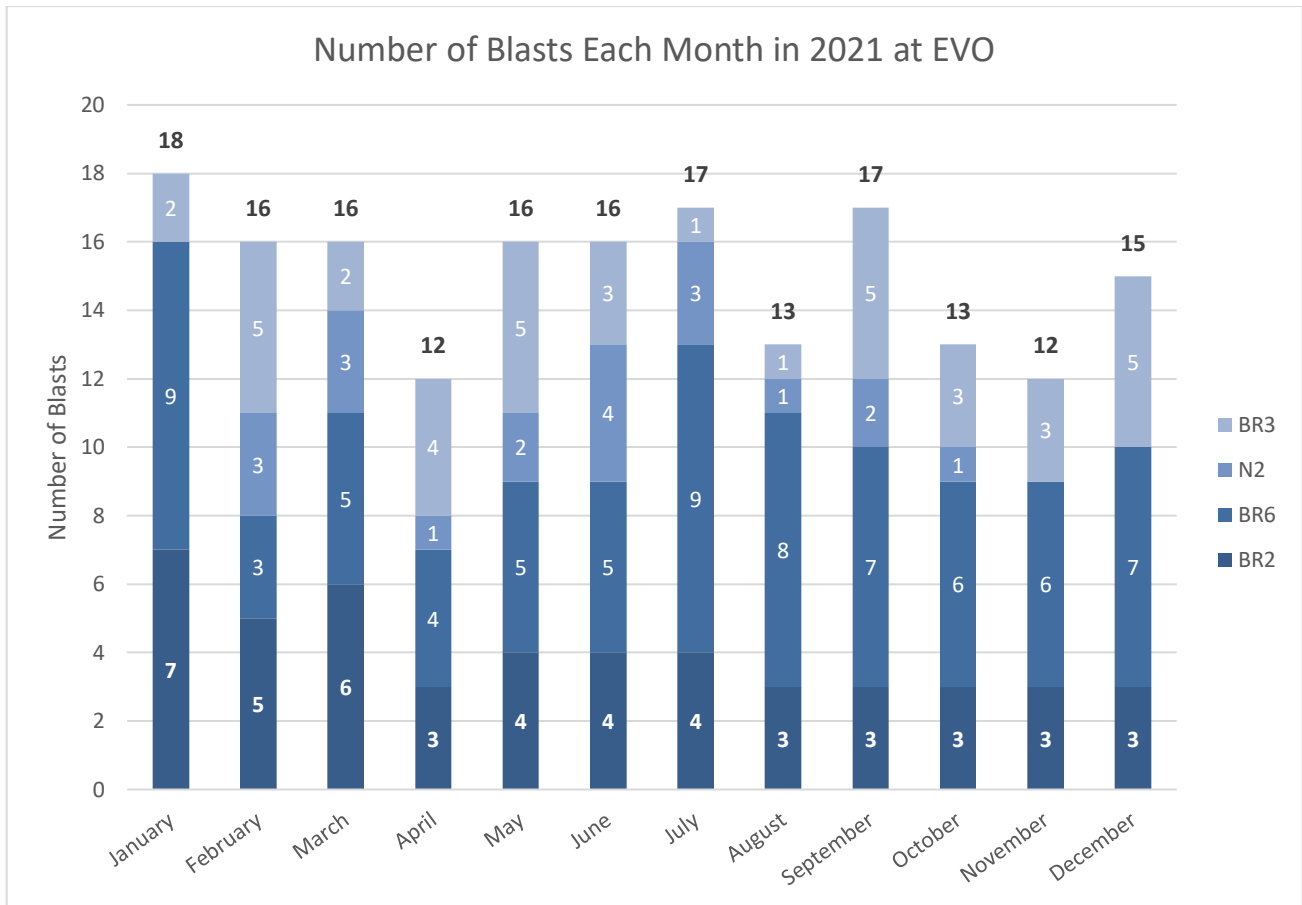


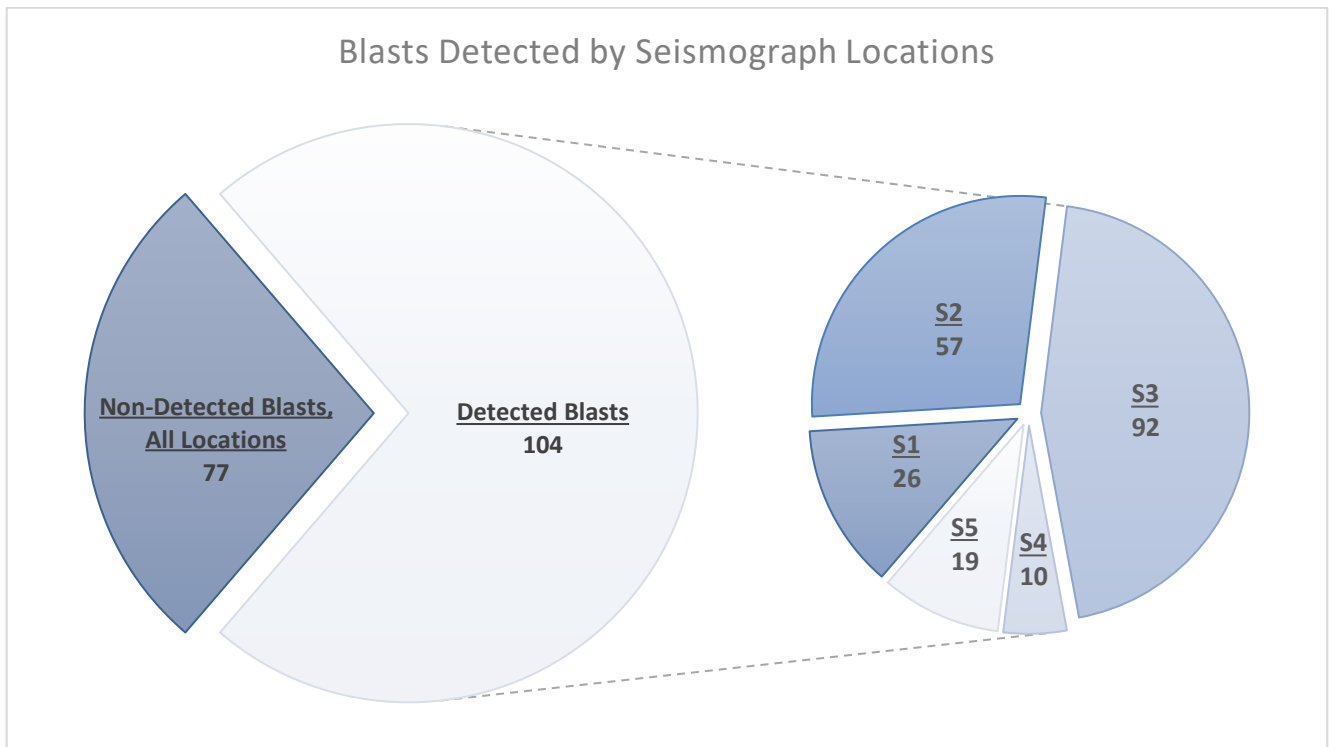
Figure 3-2: Number of blasts at EVO for each month in 2021

#### 3.1.2 Air Overpressure and Vibration Monitoring Results

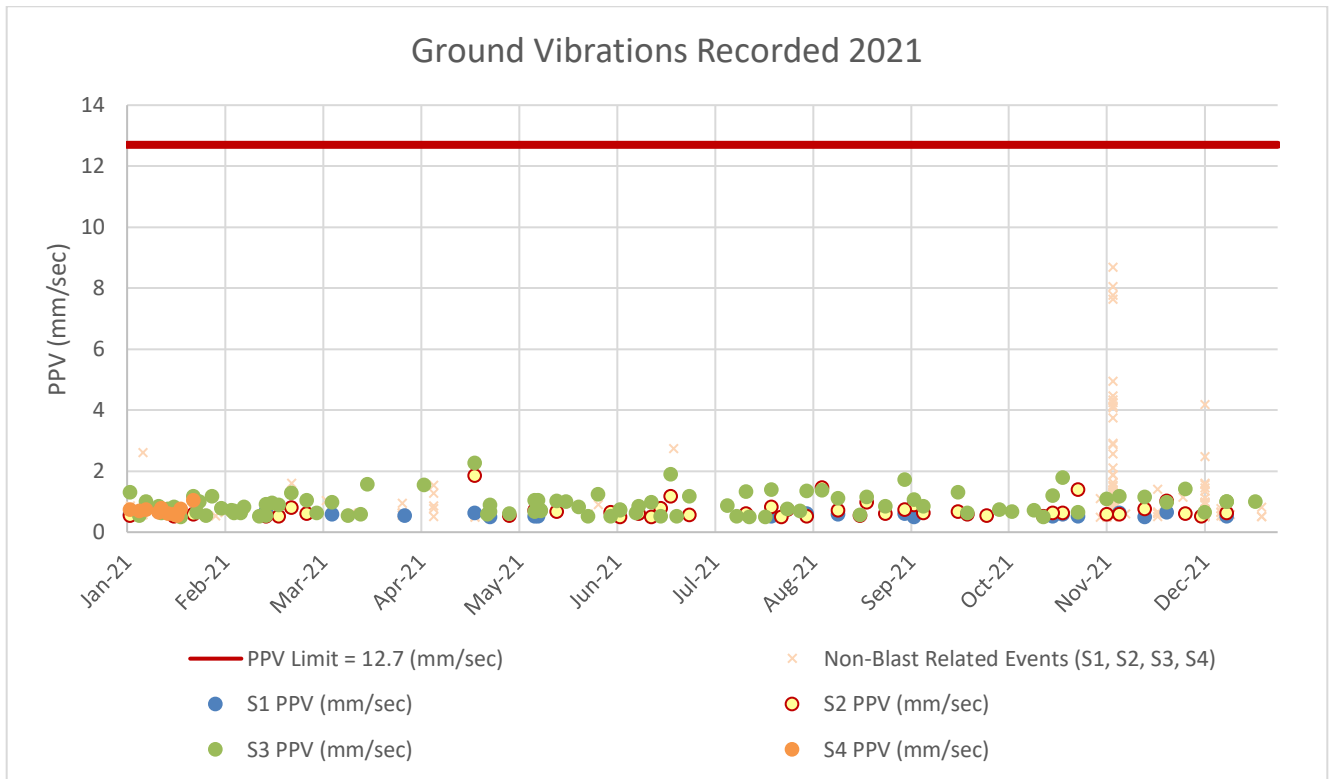
During 2021, a total of 104 blast events were detected in five seismograph locations (Figure 3-3), all of which were below the limits for ground vibrations of 12.7 mm/sec (Figure 3-4). One reading above the air overpressure of limit of 133 dB(L) was recorded but this event only triggered the on-site monitor (S5) and hit a peak of 137 dB(L) (Figure 3-5). None of the other monitors were triggered by this blast.

The monitors were triggered by non-blast related events for air overpressure and ground vibration 1468 and 154 instances respectively. Monitor trigger limits are set low to maximize the data points available for modeling and adjusting blasting practices as part of the adaptive management approach.

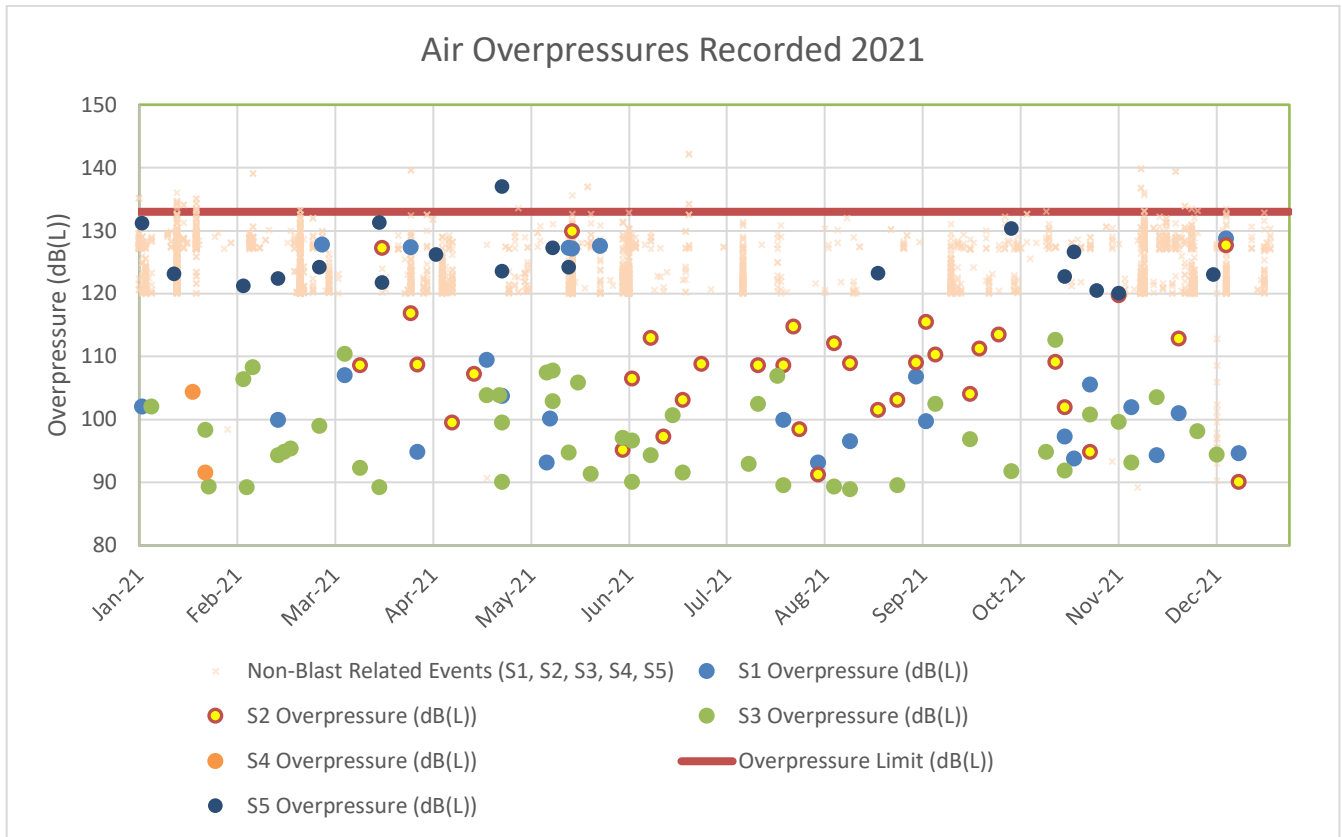




**Figure 3-3** Number of blasts detected and non-detected at each seismograph location in 2021 (Location, Number of Blasts, Percent of Blasts)



**Figure 3-4** - Recorded ground vibrations (GV) at each station in 2021 compared to limits



**Figure 3-5 - Recorded air overpressure (dB(L)) at each station in 2021 compared to limits**

### 3.2 Feedback Received in 2021

During 2021, there was one instance of community feedback received through Teck’s Feedback Mechanism related to the Blasting and Vibrations Management Plan. The one concern was related to an air overpressure event from one blast hole near the Western edge of BR2 that had a twisted blasthole liner, which caused a higher than design final explosive collar. The hole was not overloaded with more explosives than what was designed, but rather placed higher in the hole than planned which resulted in a reduction in confinement. After reviewing the blast, a training gap was identified with some operations personnel on the use of our Blast TARP process that has since been eliminated. Despite the gap at the time, none of the blast monitors showed any exceedances in our ground vibration or air overpressure limits. EVO continues to adhere to the site’s Blast Trigger Action Plan to track and record potential qualitative and quantitative meteorological data to assist in the decision-making process about whether the meteorological conditions could reinforce air overpressure levels.

### 3.3 Changes and Updates to the Plan

The Blasting and Vibration Management Plan was updated in consultation with the SCEEAC and BC Environmental Assessment Office (EAO) in 2019. No changes were made to the Blasting and Vibration Management Plan in 2021. The Blasting and Vibration Management Plan is audited yearly by a qualified professional. The 2021 audit of the plan confirms that EVO’s current blasting practices are sufficient, and the monitoring locations offer adequate coverage of the community and on-site.

## 4 Air Quality and Dust Control

The primary objective of EVO's Fugitive Dust Management Plan (FDMP), formerly called the Air Quality and Dust Control Management Plan (AQDCMP), is to manage site activities and mitigate effects on air quality related to particulate matter from fugitive dust.

Primary sources of fugitive dust generated at EVO include the use of haul and light vehicle roads, spoiling of waste rock, blasting and stockpiling of materials. Source emissions (e.g., dryer stack emissions) at EVO are primarily related to coal processing. The primary sources associated with greenhouse gasses (GHG) are from light vehicles, mining equipment emissions and source emissions while operating.

Below are definitions of terms as they relate to Section 4 of this report:

- Greenhouse gas: any or all of carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride, and any other substance prescribed by regulation;
- Particulate matter: all solid and liquid particles suspended in air, can be measured based on the size of a particle or all particles (total particulate matter);
- Source dust: dust emitted from a definable point source;
- Fugitive dust: dust not emitted from a definable point source; and
- Ambient air monitoring: continuous assessment of the surrounding air quality as it relates to fugitive dust emissions.

### 4.1 Air Quality Monitoring

During 2021, EVO monitored three permitted ambient air quality stations in conjunction with meteorological stations adjacent to the mine site (Figure 4-1) as well as the background station at Hosmer. Ambient air stations are used to assess air quality related to fugitive dust emissions. Samples were collected continuously and monitored for particulate matter (PM) less than 10 µm diameter (PM<sub>10</sub>) and less than 2.5 µm diameter (PM<sub>2.5</sub>).

Two source locations, the Dryer Stacks and Breaker Stack (Figure 41), are sampled twice a year and compared to Permit 1807 discharge limits issued by the Ministry of Environment and Climate Change Strategy (ENV). Source monitoring is used to assess the effectiveness of control measures on particulate and GHG release at a point or single source and is required by Permit 1807. Source sampling was conducted in Q2/Q3 2021 and again in Q4 2021.

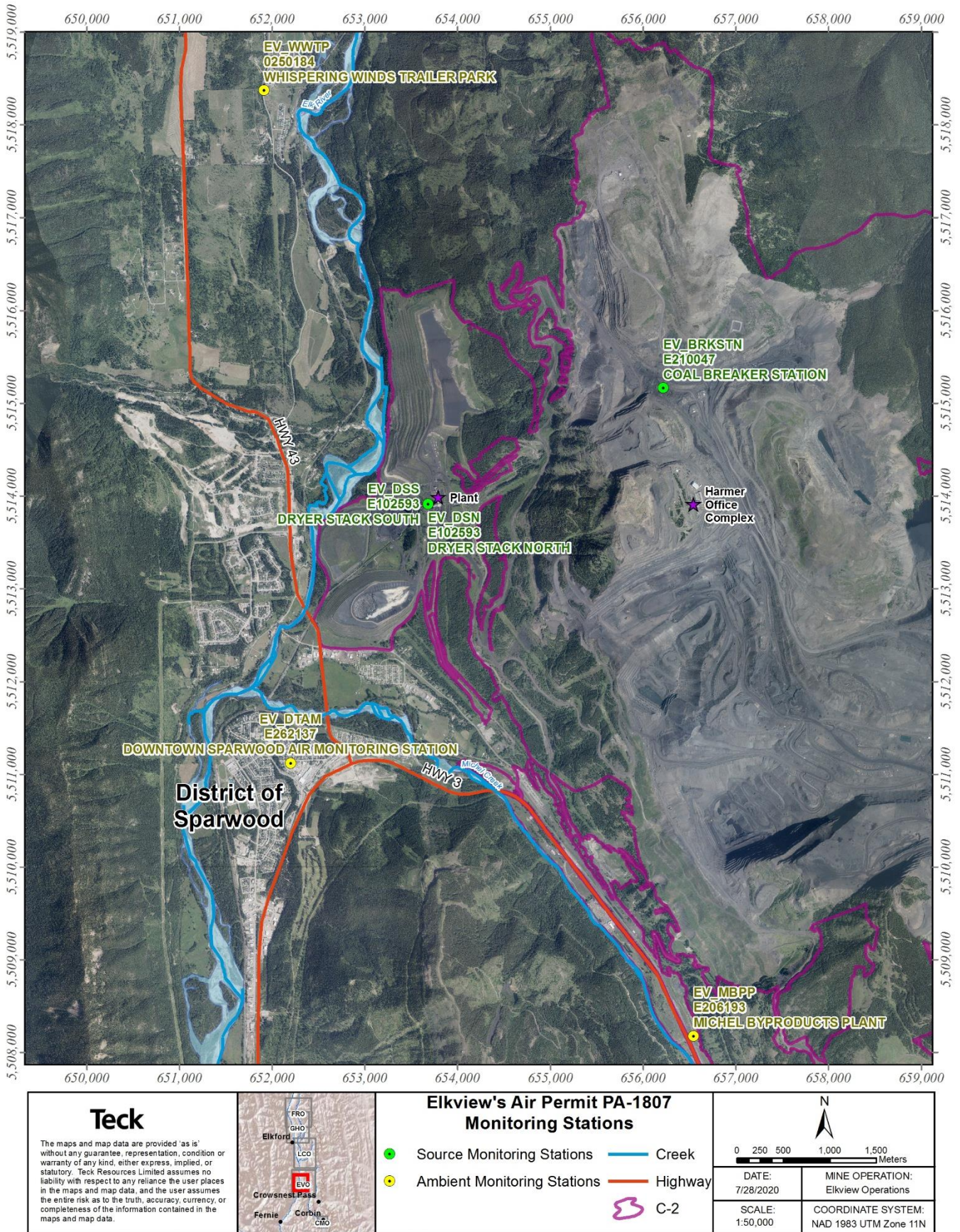


Figure 4-1: EVO permitted air monitoring locations

#### 4.1.1 Source Monitoring

EVO's Dryer Stacks (E102593) and Breaker Stack (E210047) are sampled twice a year by qualified third-party professionals at approximately equal time intervals in accordance with Permit 1807. During sampling, the Plant feeding the stacks must be operating under normal maximum operations conditions and the plant operation rate must be at least 75% of the normal maximum operating rate. The normal maximum operating rate is defined as the 90<sup>th</sup> percentile of the average hourly operating rates during the 12-month period immediately preceding the test.

The average hourly operating rate for the Coal Breaker Stack is calculated using the average Raw Coal (RC) rate in tonnes per hour (T/hr) for the 12 months preceding the sample date. For the Dryer stacks, the average hourly operating rate is calculated by multiplying the average feed screw speed in hertz per hour (Hz/hour), for the 12 months preceding the sample date, with the coal tonnage for the feed screw size; a constant value of 14 tonnes per hertz (T/Hz). The calculations for the 2021 samples are summarized below (Table 4-1).

**Table 4-1: Sample Operating Rate Compared to Normal Maximum Operating Rate in 2021**

Sample Date and Location	Average Feed Screw Speed During Sampling (Hz/hr)	Average Load During Sampling (T/hr)	Normal Maximum Operating Rate (T/hr)	Percentage of the Normal Maximum Operating Rate during sampling
<b>Coal Breaker Stack</b>				
May 6, 2021	n/a	1253	1252	100%
December 2, 2021	n/a	1127	1361	83%
<b>Dryer Stacks</b>				
September 3, 2021	27.18	380.52	431	88%
September 7, 2021	38.92	544.88	431	126%
September 13, 2021	40.88	572.32	431	133%
November 30, 2021	28.60	400.40	462	87%
December 1, 2021	28.94	405.16	462	88%

Initial source emissions sampling was conducted in May 2021, however the North and South Dryer Stacks were later determined to not meet the nominal load requirements and were subsequently resampled in September 2021. This was disclosed and due to limitations in third party availability, the later sampling date was accepted by the Ministry. The second set of sampling was conducted from November 30 – December 1, 2021. Results from these sampling events were all below permit limits for all stacks (Table 4-2).

**Table 4-2 Source monitoring results in 2021**

Location	Sample Date	Average Flow Rate (m <sup>3</sup> /s)	Average Total Particulate Matter (mg/m <sup>3</sup> )
Coal Breaker Stack	May 6, 2021	10.4	6.8
	Dec 2, 2021	9.90	3.1
<b>Permit Limit</b>		<b>14</b>	<b>150</b>
North Dryer Stack	Sept 3, 2021	106	22.1
South Dryer Stack	Sept 7 & 13, 2021	106	27.1
North Dryer Stack	Nov 30 – Dec 1, 2021	55.8	25.5
South Dryer Stack	Nov 30 – Dec 1, 2021	64.1	26.2
<b>Permit Limit</b>		<b>133</b>	<b>85</b>

Notes: m<sup>3</sup>/s = cubic metres per second; mg/m<sup>3</sup> = milligrams per cubic metre

### 4.1.2 Ambient Monitoring

EVO monitors ambient air quality at three permitted monitoring locations: Downtown Sparwood at Centennial Square (DTAM), Whispering Winds Trailer Park (WWTP), and the old Michel By-Products Plant (MBPP). Results of continuous air monitoring at these stations is compared to British Columbia Ambient Air Quality Objectives<sup>7</sup> (BC AAQO) for PM<sub>2.5</sub> and PM<sub>10</sub> (Figure 4-2 and Figure 4-3).

There were 50 daily average PM<sub>2.5</sub> concentrations above BCAAQO in 2021; 20 at DTAM, 19 at MBPP and 11 at WWTP. Generally, all exceedances for PM<sub>2.5</sub> occurred in Q3 during July and August when forest fire activity was high. A similar trend was observed at the Hosmer background station with particulate concentrations increasing during the same period in July and August due to wildfire activity.

There were 21 daily average PM<sub>10</sub> concentrations above BCAAQO in 2021; eight at DTAM, six at MBPP, and seven at WWTP. The two elevated results in the first quarter at the Downtown Air Monitoring Station (DTAM) on March 15<sup>th</sup> and on March 18<sup>th</sup>, 2021 were determined to not be attributed to mine activity based on the prevailing wind direction recorded. The remaining exceedances at DTAM were likely due to forest fire activity in the summer months between July and August, along with the majority of exceedances at MBPP and WWTP. However, the exceedances on September 5<sup>th</sup> and September 9<sup>th</sup> at the MBPP station may have been influenced by mining activities due to the north to south winds recorded on those days. A similar trend was observed at the Hosmer background station with particulate concentrations increasing during the same period in July and August due to wildfire activity.

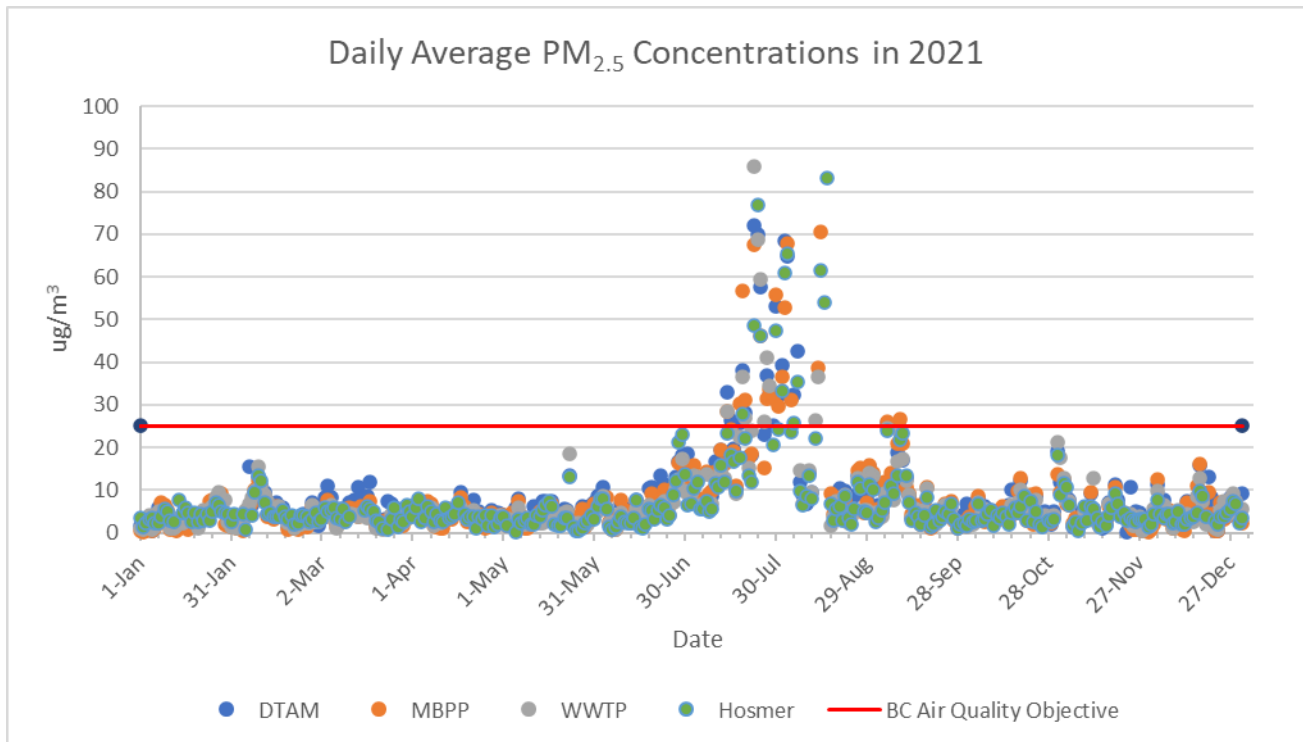


Figure 4-2: PM<sub>2.5</sub> daily average results in 2021

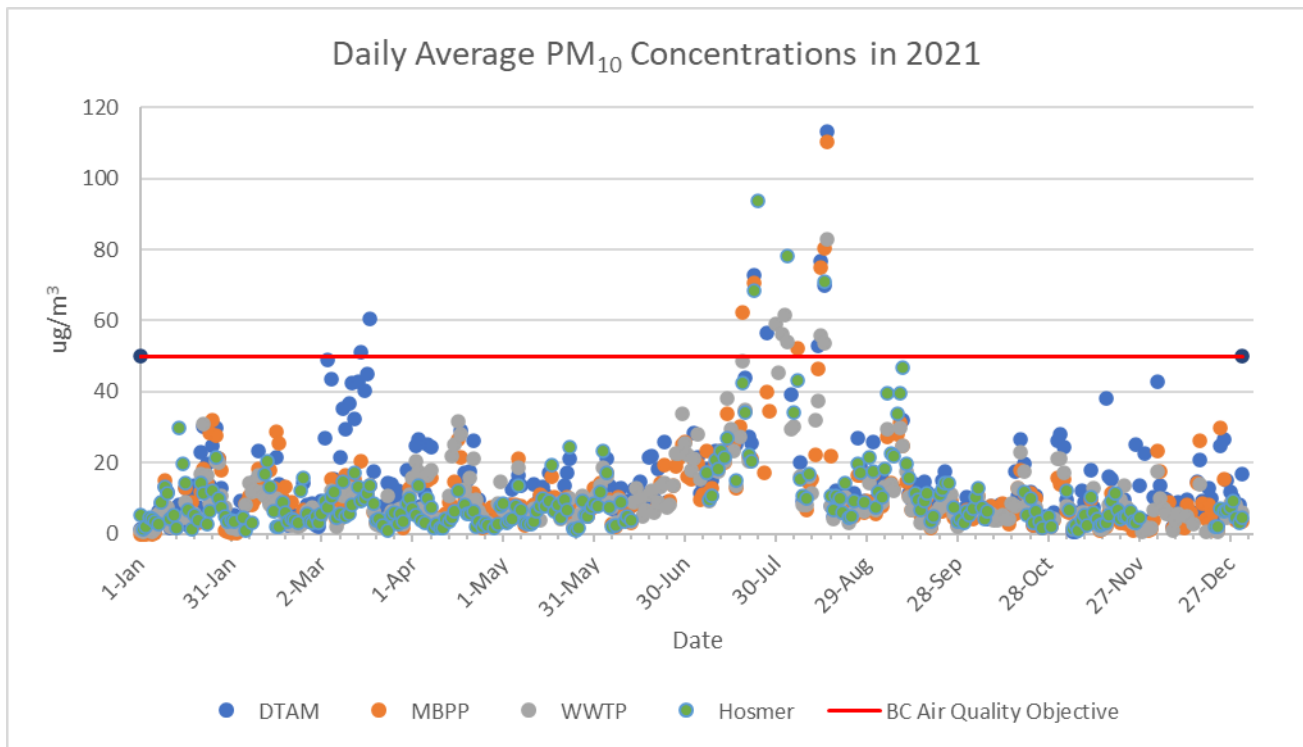


Figure 4-3: PM<sub>10</sub> daily average results in 2021

## 4.2 Feedback Received in 2021

EVO continues to prioritize efforts to minimize fugitive dust generated from site. Receiving feedback on air quality and visual impacts of fugitive dust from both the community and the SCEEAC is important in determining the effectiveness of current practices. It also helps to inform new processes Teck is pursuing in partnership with industry experts like RWDI Consulting Engineers and Scientists, Envirosuite Limited and the Massachusetts Institute of Technology.

In 2021 EVO received 156 submissions from the public related to air quality and dust. Additionally, one event was discussed on social media with multiple contributors. Table 4-2 summarizes all feedback received in 2021.

On June 27, 2021 Teck also received 4 complaints about dust above EVO. This instance was the result of a fire and was not a result of fugitive dust emissions. This is not included in the below table, as it was not related to air quality or dust at EVO. This is the first time a concern has been raised by the public relating to an instance of fire on site.

**Table 4-2 Summary of Community Feedback Related to Air Quality and Dust at EVO**

Topic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
Dirty Vehicles													
Visible Dust above EVO			1							3*			4*
Dusting Train			1										1
Dust on Property			1										1
Requests for Property Cleaning			12	8	10	7	73	26	12				148
Dust in the Community/Street								1		2			3
<b>2021 Total Feedback Related to Air Quality and Dust</b>													<b>157*</b>

\* Includes one dialogue on Facebook with numerous contributors

### 4.3 Changes and Updates to the Plan

EVO's FDMP, formerly the AQDCMP, was updated in August 2021 to reflect feedback received from ENV and KNC in 2020. The updated plan, along with a tracking document highlighting the changes, was submitted to SCEEAC on September 2, 2021. A slide deck was also presented at the November 17, 2021 SCEEAC meeting to provide an overview of the changes.

Version 4.0 of the FDMP that was submitted in August 2021, was not submitted to Ministry of Energy, Mines and Low Carbon Innovation (EMLI) and Environment Assessment Office (EAO) for consultation prior to submission. It was also missing some of the requirements from the BRE certificate. Following an internal review of the document, Teck EVO submitted a voluntary administrative non-compliance which was submitted to EAO and EMLI in January 2022.

As reported to the SCEEAC in February 2021, the FDMP is undergoing revisions in Q1 2022. These revisions will address the non-compliances from January 2022 and incorporate comments and suggestions from our internal review. The SCEEAC will receive a copy of the revised management plan and be provided with an opportunity to share feedback.



## 5 Reclamation and Closure

EVO currently has 1,311.4 hectares (ha) of area that is considered reclaimed. These areas include those which have been prescribed reclamation treatment or have established as a result of natural vegetation ingress. The completed reclamation area accounts for approximately 29% of the total disturbance area at EVO (Figure 5-1).

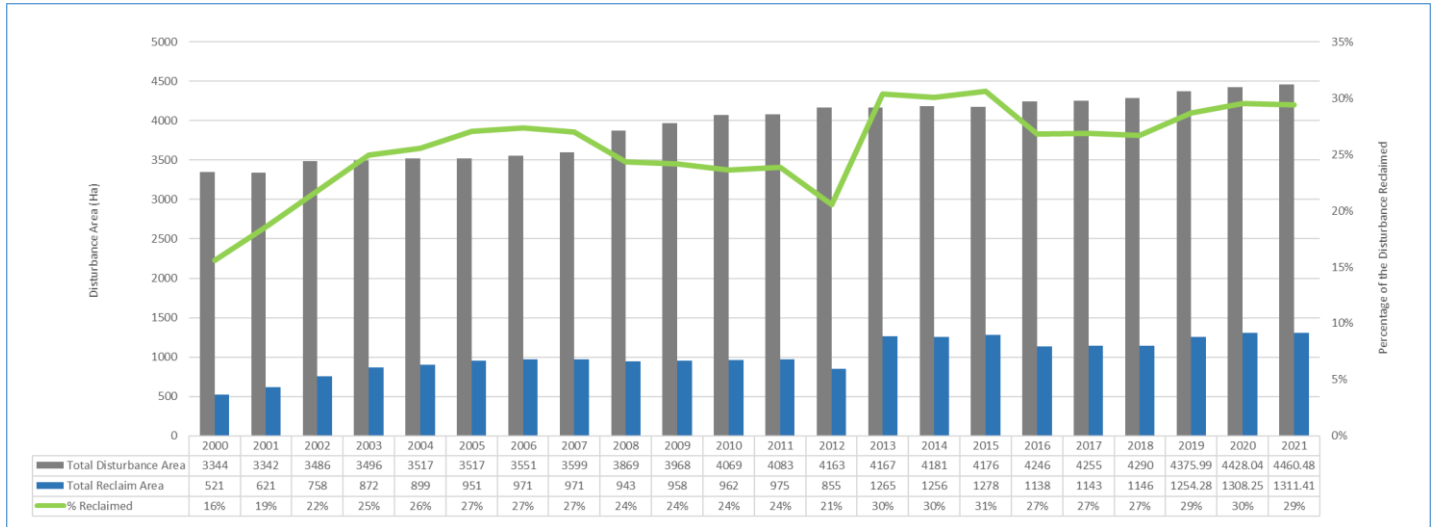


Figure 5-1: EVO disturbance and reclamation summary over the last 21 years

### 5.1 Reclamation Completed in 2021

The vegetation program in 2021 covered a total of 98.4 ha. The planting program was completed in June near the Coarse Coal Refuse (CCR) Spoil. A total of 11,430 seedlings were planted in 1.3 ha at an average density of 8,792 stems/ha. The seeding program covered approximately 97.1 ha in area; treatment locations were at the CCR, Lagoon D, Main Access Road, Bodie Spoil, Natal Spoil, and South Pit Spoil.

The CCR Spoil continues to be progressively reclaimed as additional lifts are completed. There was approximately 3,500m<sup>3</sup> of cover material placed over a 1.2 ha area of the CCR at an approximate average depth of 30 cm. Cover material was also placed on approximately 2.0 ha on Lagoon D for visual quality and fugitive dust mitigation.

There was 5 ha of site preparation completed at the Bodie Spoil in 2021. The objective of this treatment is to prepare the Bodie Spoil for additional planting scheduled for 2023. This additional planting is in alignment with the visual quality toolkit (part of the Visual Quality Management Plan) and will provide a mosaic of tree structure on the Bodie Spoil, reducing visual quality impacts.

There was approximately 12.1 ha of soil salvage completed in advance of the Harmer Facilities Administrative and Maintenance Complex project. The salvaged material will be stockpiled and used for reclamation.

Teck continued with the Invasive Plant Management Program in 2021 through the implementation of the annually updated EVO Invasive Plant Site Operational Plan, which includes survey, treatment, and auditing actions. A total of 229.6 ha of area on and around EVO was treated in 2021 for invasive plants. A total of 622.7 ha of area was also inventoried for invasive plants with 37% of this area receiving treatment.

A multi-year Closure Landform Assessment continued in 2021 at the Harmer Knob spoil area on the north side of the EVO property. The objective of the assessment is to complete a re-design of the spoil that

improves overall stability and drainage integrity. A feasibility design was completed in 2021, which will guide the reclamation activities over the next few years.

## **5.2 Feedback Received in 2021**

No community feedback was received in 2021 related to reclamation or closure at Elkview.

## **5.3 Changes and Updates to the Plan**

The EVO Five Year Mine and Reclamation Plan update is due on June 30, 2022. The Five Year Mine and Reclamation Plan will present mining activities planned to occur over the next five years in detail as well as conceptual mine plans out to the end of operations. The reclamation planning sections of the plan will include information related to end land use objectives, reclamation planning and scheduling and describe specific reclamation treatments. The reclamation plan will be provided in detail for five years and then conceptually out to the end of closure. Finally, the plan will provide conceptual closure planning considerations to provide context and consideration for that phase of the operation. The last update of this report was completed in June 2017.

## 6 Visual Quality

In 2019, a Visual Quality Management Plan (VQMP) was developed for EVO in consultation with the SCEEAC, KNC, Ministry of Forest, Lands, Natural Resource Operations and Rural Development (FLNRORD), and EAO.

The VQMP constitutes a foundation for adaptive management of visual effects of the BRE Project. The plan provides a working environmental management tool for managing ongoing visual effects to the landscape from BRE Project mining activity and other BRE Project components. An adaptive approach will be used to address the uncertainty of visual effects and/or the effectiveness of mitigation strategies and procedures through the integration of knowledge and experience gained through ongoing engagement, implementation of mitigation measures, monitoring and research.

Management of visual quality for the BRE Project area focuses on strategies for visual design of landscape features that are compatible with the surrounding natural landscape character. The goal of this design is to minimize the visual dominance of BRE Project mining features and infrastructure while supporting intended end land uses. The VQMP also considers other management objectives (e.g., biodiversity, air quality, reclamation and closure) as well as mine development and operational requirements to support an appropriate balance in planning, design and management of activities.

The objective of the VQMP is to address the potential adverse effects to visual quality from mining activities and infrastructure associated with the BRE Project. Specific objectives of the VQMP include:

- Meet and maintain compliance with Condition 18 of the BRE Project EAC;
- Identify visual design practices and specific mitigation strategies and procedures to minimize the visibility and visual effect of mining activities and infrastructure to key areas of value and/or viewer sensitivity to visual disturbance;
- Support social value associated with the use of the visual landscape setting;
- Support cultural value associated with the use of the visual landscape setting;
- Support broader closure & reclamation planning and objectives while specifically addressing visual quality goals;
- Integrate with other EVO management plans and commitments to provide additional benefit to performance goals and understand the potential trade-offs involved;
- Develop a visual quality monitoring and auditing program to address uncertainty of visual effects and the effectiveness of mitigation strategies and procedures;
- Support Teck's Sustainability Strategy objectives; and,
- Strengthen relationships with the District of Sparwood and Ktunaxa Nation.

### 6.1 Visual Quality Monitoring

The VQMP outlines a monitoring, reporting and auditing program which will occur every five years or in alignment with the Five Year Mine Plan Reclamation Plan. The first audit of the VQMP is planned to occur in 2022, in alignment with the new Five Year Mine Plan and Reclamation Plan with optional participation from the KNC and SCEEAC. The process and standards for visual quality monitoring were developed in 2020 and reviewed with the SCEEAC at that time, and are found in Section 5 in the VQMP Toolkit.

### 6.2 Feedback Received in 2021

In 2021, Teck received no submissions from the public regarding visual quality.

### 6.3 Changes and Updates to the Plan

The VQMP was finalized in 2019 and included milestones for further development in 2020, including:

- The identification of Key Viewpoints;
- Definition of Visual Management Zones;
- Submission of a draft VQMP Toolkit for review and comment to the SCEEAC, KNC, and regulators;
- Submission of draft visual monitoring and auditing procedures for review and comment to the SCEEAC, KNC, and regulators; and,
- Developing and presenting training on the Toolkit to EVO mine planners.

The VQMP Toolkit is a supplement to the VQMP, and describes a set of visual principles, strategies, procedures, and design techniques that mine design engineers can apply when planning mine activities. Each tool includes procedures, design parameters, considerations for implementation, and visual precedents.

All VQMP Key Operational Milestones identified for 2020 were achieved as follows:

- Key Viewpoints were identified representing a range of publicly accessible viewing opportunities related to residential areas, motorists, recreational and Ktunaxa Nation use areas. These viewpoints will be used to monitor changes in viewscales over time;
- Visual Management Zones, discrete units that are defined to indicate areas of relative sensitivity to visual disturbance, were identified ranging from low visibility (VMZ#1) to highly visible (VMZ#4). Various visual management tools will be used within each zone;
- A draft VQMP Toolkit that includes visual monitoring and auditing procedures was provided to the SCEEAC, KNC and regulators in September 2020; and
- Toolkit training was provided to EVO mine planners in November 2020.

The VQMP Toolkit was finalized in December 2020, and will be used in future mine planning beginning in 2021. Examples of implementation of the Toolkit into planning include designs for:

- The new Administrative and Maintenance Complex (AMC), for which early works (clearing and earthworks) were approved in December 2021 and includes the following visual quality design elements:
  - Utilization of existing topography and vegetation for visual screening opportunities;
  - Blending of constructed slope with adjacent terrain;
  - Revegetation with multiple different species types, including grasses, trees, and shrubs; and
  - Utilization of non-reflective surfaces and neutral colors for facility cladding.
- Cedar North In-Pit Spoil Extension is currently being constructed. The landform design for the spoil was developed through workshops with KNC in 2019 and includes a ridgeline feature, undulating topography to mimic original terrain and connect with adjacent topography, and bench areas to create habitat for bighorn sheep.

## 7 Socio-Community and Economic Effects

EVO and the DOS worked collaboratively throughout 2018 to prepare the SCEEMP and outline the role and objectives of the SCEEAC. The SCEEAC is a select committee of Council for the DOS. The DOS Council appointed seven volunteer community members, two representatives from Council and three representatives from Teck: Manager Social Responsibility, EVO Superintendent Environment, and EVO General Manager.

The Terms of Reference for the SCEEAC was approved by DOS Council on December 3, 2018, and are viewable at [www.sparwood.ca/livable](http://www.sparwood.ca/livable). The mandate of the SCEEAC is to comply with Condition 21 of the BRE EAC. The SCEEAC is a group intended to:

- Perform an advisory role, focused on making recommendations to DOS Council and Teck for consideration with respect to implementing Condition 21 of the BRE EAC;
- Provide a broad community voice;
- Act as a conduit for communication between Teck, DOS, and the public, and to build trust;
- Advise on engaging the broader community of Sparwood;
- Review results for other management plans preapproved under the BRE EAC; and
- Assist in identifying on-going socio-community impacts and possible solutions for adaptive management.

The SCEEAC met four times last year in two-hour sessions featuring presentations from different Teck subject matter experts related to the BRE project. Meeting minutes are located here: <https://sparwood.civicweb.net/filepro/documents/97460>.

### 7.1 Socio-Community and Economic Effects Monitoring

A Livability Study led by the DOS was completed in November 2019. The study was the first step in monitoring performance with respect to the SCEEMP. The purpose of the study was to better understand the quality of life in Sparwood by reviewing multiple focus areas such as social engagement and cohesion, environmental sustainability, healthcare, the economy, education, mobility, housing, recreation, and social space. The study can be viewed at the following location:

<https://sparwood.civicweb.net/FileStorage/4C8D14839D1F4DDA9B18E54BFB4F78FE-Livability%20Study%20-%20What%20We%20Learned%20Report.pdf>

### 7.2 Feedback Received in 2021

During 2021, no community feedback was received related to the Socio-Community and Economic Effects Management Plan. There were 44 pieces of feedback from the SCEEAC on the 2021 SCEEMP Annual Report.

There were four SCEEAC meetings in 2021 which included public question periods. The regular SCEEAC meeting schedule was changed from every third Wednesday in January, April, July and October to every third Wednesday in February, May, August, and November to better align with permitting deadlines and summer holidays. Meeting minutes are located here: <https://sparwood.civicweb.net/filepro/documents/97460>

As required under the SCEEMP, the Annual BRE Public Meeting was held virtually on May 19, 2021.

Teck's annual access boundary maps were distributed in the Fernie Free Press, at site gatehouses, to outdoor recreational groups, and posted online on August 25, 2021. View the online maps at [www.teck.com/coalmaps](http://www.teck.com/coalmaps)

**Table 7-1 Engagement and communications regarding the Socio-Community and Economic Effects Management Plan and Advisory Committee in 2021**

Date	Engagement
February 3, 2021	Email request for feedback on Teck's Cedar North Inpit Backfill Extension and Tunnel Water Diversion documents
February 16, 2021	Email request for feedback on Final Visual Quality Management Plan Toolkit
February 20, 2021	SCEEAC Regular Meeting
February 23, 2021	Email notification about 2021 Livability Study Community Rating Survey
March 2, 2021	Email request for feedback on 2020 Socio-Community and Economic Effect Management Plan Annual Report
April 13, 2021	Email for awareness on Continuous Noise Monitoring at EVO
April 21, 2021	SCEEAC Regular Meeting
April 23, 2021	Email for awareness on dust presentation and spray station response
April 23, 2021	Email request for feedback on SCEEAC meeting via survey
May 1, 2021	Email request for comments of referral package for Baldy Ridge Extension Amendment
May 1, 2021	Email for awareness about SCEEMP Annual Report and Feedback Table
May 6, 2021	Email for feedback on changed SCEEAC schedule
May 11, 2021	2021 Livability Report Card Published
May 12, 2021	Email reminder for registration- Baldy Ridge Extension Annual Progress Online Update
May 19, 2021	Annual Public Meeting
June 3, 2021	Email for awareness on Baldy Ridge Extension Online Annual Update Minutes
June 29, 2021	Email for awareness on TAC - Amendment Granted Baldy Ridge Extension Project
July 15, 2021	Email request for feedback on Harmer Relocation Project Amendment
July 30, 2021	Email for awareness on EVO 1807 - MONITORING - Second Quarter Air Report for 2021
August 17, 2021	Teck Access Boundary maps published in the Fernie Free Press, distributed to outdoor enthusiast clubs, and available at mine site gatehouses
August 25, 2021	SCEEAC Regular Meeting
September 2, 2021	Email for awareness on EVO Fugitive Dust Management Plan Updates
September 3, 2021	Dust mitigations and information mailed out to Sparwood residents
September 20, 2021	Email for awareness on Sparwood playgrounds and benches cleaning complete
October 12, 2021	Email invitation to Teck's Water Quality Virtual Open House on October 27
October 29, 2021	Email request for feedback on SCEEAC 6-month update on EVO Noise Monitoring Program

November 17, 2021	SCEEAC Regular Meeting
November 18, 2021	Email for awareness on dust suppression station presentation
November 18, 2021	Email for awareness on Amendment # 2 BRE Harmer Relocation - responses
December 16, 2020	Outdoor Enthusiast Meeting – Access Boundary Maps Discussed

### 7.3 Changes and Updates to the Plan

There have been no changes to the SCEEMP since Version 1.0 was finalized in 2019. The overall purpose of the SCEEMP is to provide a comprehensive adaptive management framework and process designed not only to ensure compliance with the BRE EAC, specifically Condition 21 (Section 1.2), but also to be the foundation for a long-lasting and effective partnership between Teck and the DOS. The adaptive management process cycles every three years and will apply to the SCEEMP in 2022.

At the SCEEAC meeting on November 17, 2021, the survey to provide feedback on the SCEEMP three-year review was introduced to the SCEEAC. The survey was distributed via email November 23. There were ten survey respondents by the December 15 deadline. Feedback will be included in the 2022 SCEEMP Annual Report.

## 8 Summary and Conclusions

Results from noise monitoring in 2021 (continuous from February 8 - December 31, and intermittent from August 23-27) indicate that all measured sound levels from EVO were in compliance with Permissible Sound Levels as defined in the Noise Management Plan. In 2021, Teck initiated an update to the noise model. An update to the Noise Management Plan is anticipated to follow the finalization of the revised model. There were no changes to the Noise Management Plan in 2021.

In late 2021, all blast monitors were replaced with a new monitoring system which allows for automatic and permanent recording, documentation and display of blast vibrations and air overpressure. In 2021, all detected blast events were below the limits for ground vibrations of 12.7 mm/sec and one on-site reading was above the air overpressure limit of 133 dB(L). This event only triggered the on-site monitor and hit a peak of 137 dB(L). No changes were made to the Blasting and Vibration Management Plan in 2021.

EVO continues to implement its air monitoring program in accordance with the requirements identified in Permit 1807. In 2021 the FDMP was updated and submitted to SCEEAC, including a presentation to summarize the changes. A further updated version will be sent to SCEEAC in Q1 2022. In general, the daily averages from the ambient air monitors were below the BC AAQO. The majority of the PM<sub>10</sub> and PM<sub>2.5</sub> daily average exceedances were a result of forest fire activity in July and August 2021. Source emissions sampling occurred at the Dryer Stacks and Breaker Stack in Q2/Q3 and Q4 2021. All source emissions results for 2021 remained below permit limits.

In 2021, reclamation continued at EVO with 98.4 ha of vegetation activity and 229.6 ha treated through the Invasive Plant Management Program. Reclamation for 2021 also focused on soil salvage at the Harmer Facilities Administrative and Maintenance Complex project area, site preparation at the Bodie Spoil, and progressive reclamation at the CCR Spoil. A multi-year Closure Landform Assessment continued at the Harmer Knob spoil area with the objective of improving drainage and stability. The EVO Five Year Mine and Reclamation Plan update is due on June 30, 2022. The reclamation planning sections will highlight the plan for end land use objectives, reclamation planning and scheduling and describe specific reclamation treatments.

The Visual Quality Management Plan was developed for EVO in 2019. The first audit of the VQMP is planned to occur in 2022, in alignment with the new Five Year Mine Plan and Reclamation Plan. The VQMP Toolkit that was finalized in December 2020 describes a set of visual principles, strategies, procedures, and design techniques that mine design engineers can apply when planning mine activities. Examples of implementation of the Toolkit in 2021 include designs for the new Administrative and Maintenance Complex and Cedar North In-Pit Spoil Extension.

The SCEEAC met four times last year in two-hour sessions featuring presentations from different Teck subject matter experts related to the BRE project. The regular SCEEAC meeting schedule was changed from every third Wednesday in January, April, July and October to every third Wednesday in February, May, August, and November to better align with permitting deadlines and summer holidays. There have been no changes to the SCEEMP since Version 1.0 was finalized in 2019. At the SCEEAC meeting on November 17, 2021, the survey to provide feedback on the SCEEMP three-year review was introduced to the SCEEAC. Feedback will be included in the 2022 SCEEMP Annual Report.



## 9 Providing Feedback and Additional Information

This report and more detailed EVO Permit 1807 Annual Air Reports are available at [www.teck.com/elkview-reports](http://www.teck.com/elkview-reports) for review. Annual reports under the noise, view-scape and blasting and vibrations programs are currently not required through their associated management plans.

If you have feedback on this report or on any Teck activities, please contact Teck through the Elk Valley Feedback Mechanism using one of the methods listed below:

- Phone: 1-855-806-6854
- Email: [feedbackteckcoal@teck.com](mailto:feedbackteckcoal@teck.com)
- Online submission form: [www.teck.com/contact](http://www.teck.com/contact)

Responses to feedback will be sent if contact information is given.

An Annual Meeting to discuss this report will be scheduled for May 25, 2021. Minutes from the Annual Meeting will be displayed at the Sparwood Public Library, the Teck Social Responsibility Office in Sparwood and the DOS Main Office following the meeting.

## Appendix A: Feedback on 2020 Socio-Community and Economic Effects Manage Plan Annual Report

<b>Section 1: Introduction</b>	
There are no recommended changes to this section of the report	
There are no recommended changes to this section of the report. If you have any input and recommendations on the Introduction, please enter it here.	The introduction has given a detailed layout however the general public has questioned immensely over what period of time is planned for the removal of this ridge.
<b>Section 2: Purpose</b>	
There are no recommended changes to this section of the report	
. If you have any input and recommendations on the Introduction, please enter it here.	The purpose of this agreement should be recognized as a leading objective for the following reasons that it connects the public and DOS with the operations and understanding of our local developments. Also should enhance a closer connection within all concerns from business to private living.
<b>Section 3: Objectives</b>	
Teck and the DOS are committed to achieving the following broad outcomes for their working relationship/partnership.	A flexible, evolving, collaborative process for implementation of the SCEEMP which ensures meaningful input from the community and increases trust and understanding Strongly agree            7
	Somewhat                    3
	Community members recognize the value and the benefits from the SCEEMP and recognize that their input has a visible and tangible impact on the community and livability; this is assisted by provision of clear and accessible information to community members Strongly agree            5
	Somewhat agree            4
	Neutral                        1
	Teck and DOS have a dedicated team to advance the collaborative framework; and there is a clear process with dedicated resources for working together Strongly agree            6
	Somewhat agree            4
	The SCEEMP process is effectively connected with existing regulatory processes and committees Strongly agree            1
	Somewhat agree            8
	Neutral                        1

	<p>The SCEEMP is viable over the long-term</p> <p>Strongly agree        5</p> <p>Somewhat agree       4</p> <p>Somewhat disagree   1</p>
<p>Please provide feedback on what is working well regarding the above.</p>	<p>I believe the structure of the SCEEMP is effective and the committee of representatives from Teck, DoS, and the community is good.</p> <p>There is mutual broad agreement and alignment on working together for the betterment of the community/company relationship and to mitigate impacts to the community.</p> <p>The process provides a regular interface through which concerns can be raised and tracked. Responses can be provided and communicated out. The meeting intervals are scheduled throughout the year and preparations can be made by all parties in advance.</p> <p>EVO is receptive to input</p> <p>The working connection is a vital issue with progressive relationship and also resulting to the successful    It must also be presumed that with this connection Teck may have input from outside parties to aid their own plans.    .</p> <p>The meetings work well, and it gives Teck an opportunity to present to the committee initiatives that are moving forward in regards to BRE</p> <p>The open dialogue; the presentations; the feedback</p> <p>Meeting with Teck and committee members on reg basis working well</p> <p>The process as it has evolved is working well. Review of issues brought forward are given meaningful respectful consideration</p> <p>Great participation and commitment by all parties. Issues raised by the community are addressed by the mine and feedback provided timeously. Allows open dialogue</p>
<p>Please provide feedback on what is NOT working well and how it could be improved.</p>	<p>The frequent change of support staff from the District and Teck over the past 3 years has been surprising. I would suggest alerting the committee to the changes prior to meetings (sometimes it is nice to say goodbye and thank people for their contributions to the committee)</p> <p>Nothing specific comes to mind.</p> <p>At times there are concerns raised that may require a faster response than at the next meeting and the mechanism to do so is usually email, which is not as interactive. There may be no better solution here as every process has some limitations and the nature of the public discussion is transparent as opposed to one-on-one side discussions.</p> <p>community's ability to differentiate between a EVO issue and a Teck wide issue.</p> <p>In reviewing the subject above "Community Members" In general I found that those</p>

	<p>that I conversed with in the public had little idea of the working and formats of SCEEMP. With and explained they were interested and impressed with the connection and relationship with Teck. It therefore appears to me that the conversive relationship with the public needs to be reviewed.</p> <p>Teck is bound by provincial regulation and they have in the past filed documents that were not agreed to by either SCEEAC or the DOS Mayor and Council. This provides for an awkward working relationship when that happens. Teck must provide the DOS Mayor and Council with more time to review documents that are going to the provincial level.</p> <p>The lack of Teck head office commitment</p> <p>Sometimes meeting dates are too far apart</p> <p>I believe some issues which have been brought forward could be resolved faster. Maybe streamlining decision making process in routine situations</p> <p>Virtual meetings are required due to Covid but face to face meetings always work best.</p>
<p>The relationship continues to be seen by DOS [citizens, Council, staff] and Teck [EVO, Social Responsibility Group, Corporate] as a place of respect and ownership. Please select your level of agreement for the following statements.</p>	<p>Transparency is demonstrated by clear intent and actions to share information in common language that is accessible and useable by residents and distilled to inform Council and the community.</p> <p>Strongly agree 3</p> <p>Somewhat agree 6</p> <p>Neutral 1</p> <p>Accountability is demonstrated by clear line of sight between decisions made, including clarity of who makes decisions, and the work done.</p> <p>Strongly agree 4</p> <p>Somewhat agree 5</p> <p>Neutral 1</p> <p>There is a good match between how the community perceives the Teck/DOS partnership and the reality of how the partnership functions to achieve the purpose of SCEEMP.</p> <p>Strongly agree 1</p> <p>Somewhat agree 6</p> <p>Neutral 3</p> <p>External groups and audiences see the relationship as leading edge, forward-looking, ground-breaking, and innovative and see it as seamless.</p> <p>Strongly agree 1</p> <p>Somewhat agree 7</p> <p>Neutral 2</p>
<p>Please provide</p>	<p>I think there is a good level of respect in the relationship between Teck/DOS and the</p>

<p>feedback on what is working well regarding the above.</p>	<p>dialogue is open and constructive. Parties are comfortable sharing information on both sides and giving feedback.</p> <p>All parties seem committed to the process. Information is shared and thoughtful questions are posed to Teck.</p> <p>In general, we have developed a good all-round relationship which looks forward to success.</p> <p>Teck is proactive in providing information on things that are aligned with BRE</p> <p>The communication of meetings, events and current operations is really good; Elkview's commitment is evident</p> <p>Community somewhat agrees with Teck Dos relationship</p> <p>I believe the general public feels reassured by the workings of the current process. I also think it is considered a way of effectively addressing concerns</p> <p>This is the only forum of its kind in the Elk Valley and is a benchmark for other towns and mines to follow suit</p>
<p>Please provide feedback on what is NOT working well and how it could be improved.</p>	<p>To show partnership and to give another level of feedback, the District should set up a hotline, much like Teck's line to report dust, noise, etc., and share the feedback with Teck.</p> <p>There is always room to improve, and I do wonder how the information from the SCEEAC gets into the hands of the community members on an ongoing basis.</p> <p>The meetings seem to attract the same participants from the public as opposed to a rotating roster. Perhaps that is a sign that the information is not as appealing. Or it may be a sign that the issues are being dealt with adequately.</p> <p>It is in my view that SCEEMP make decisions on subjects in which some members have not personally viewed the Teck operations. e.g. Having myself having spent years working amongst machinery in severe dust conditions and trying to control the subject I find that inexperienced can become a challenge. It is notable that members of SCEEMP view the sight to fore foot sound decisions.</p> <p>Outside of the committee I doubt anyone in Sparwood has a clue about this committee and its workings.</p> <p>The lack of Teck head office commitment to the committee; if they were to have representation in this group it would be truly leading edge</p> <p>Feedback to community can be improved</p> <p>Improved methods for resolving issues quickly would be a good thing</p> <p>Roles and responsibilities could be better defined and may need to be updated and redistributed given staff changes</p>
<p><b>Section 4: Scope and Scale</b></p> <ul style="list-style-type: none"> <li>• BRE at Teck Elkview Operations</li> </ul>	

<ul style="list-style-type: none"> <li>• SCEEMP is applicable to construction, operations and closure phases of BRE at Elkview</li> <li>• Communities of Interest including residents of the municipality of Sparwood and those residents of the Regional District of East Kootenay with a Sparwood address (i.e., those residents in the vicinity of Lower and Upper Elk Valley Road)</li> </ul>		
Do you have any input or recommendations on the scope and scale?	I believe the scale is sufficient. It may be beneficial for SCEEAC to have an RDEK member on the committee.	
	I have discussed this item with several residents who are living in the prescribed above area. They were not aware of the SCEEMP /Teck communication. Several then made suggestions to me for assistance with their properties. This was followed through with success. The correction communication seems to be a problem there. However, answered with great respect for SCEEMP	
	Scope should include Teck HO	
<p><b>Section 5: Advisory Committee</b>                  The Advisory Committee is a group intended to:</p> <ul style="list-style-type: none"> <li>• Perform an advisory (not decision making) role, focused on making recommendations to DOS Council and Teck for consideration with respect to implementing Condition 21</li> <li>• Provide a broad community voice</li> <li>• Act as a conduit for Teck EVO and DOS to reach citizens and for citizens to reach Teck EVO and DOS – and to build trust</li> <li>• Advise on engaging the broader community of Sparwood,</li> <li>• Review results for other Management Plans (Table 4-1) required as per BRE EAC #M16-01</li> <li>• Assist in identifying on-going socio-community impacts and possible solutions for adaptive management</li> </ul>		
Is the above an accurate description of the Advisory Committee?	Yes	10
<p><b>Section 6: Adaptive Management</b>                  Adaptive management requires the completion of a six-stage process (Figure 6-1). Community engagement will inform all six stages. Collaboration between Teck EVO and the DOS will be applied to all six stages:</p> <ol style="list-style-type: none"> <li>1. Assess</li> <li>2. Design</li> <li>3. Implement</li> <li>4. Monitor</li> <li>5. Evaluate</li> <li>6. Adjust</li> </ol> Details of each stage in the Adaptive Management process are provided in Appendix C.		
Are you satisfied with the adaptive management process?	Yes	10
<p><b>6.2: Roles and Responsibilities</b>                  It will be the responsibility of both of the AM Leads to ensure that topics are applicable to the AM process and to develop draft products for each stage of the SCEEMP AM process as required. A critical responsibility of the AM Leads is to keep accurate, timely, and complete records of all decisions made at each stage in the SCEEMP process. SCEEMP Adaptive Management cycles may take a considerable length of time, and it is likely that adjustments will be made within a stage prior to moving to the next stage as knowledge increases.</p>		
Are you satisfied with the AM Lead	Yes	10

responsibilities ?																					
<b>Section 7: Livability Study</b> The Livability Study is now complete.																					
Do you have any recommendations or feedback on the annual Livability Report Card?	It is a useful tool and snapshot in time. We have to find a way to differentiate between how BRE make financial compensation to Sparwood and where Teck Corporate enters the SCEEMP Keep simplifying Good through study. We may want to get information out to community faster																				
<b>Section 8: Principles of Engagement</b>																					
Please select your level of agreement for the following Principles of Engagement.	<p>Purposeful: design engagement efforts with a clear understanding and agreement of why the engagement is being done.</p> <table border="1" data-bbox="375 667 743 856"> <tr> <td>Strongly agree</td> <td>5</td> </tr> <tr> <td>Somewhat agree</td> <td>4</td> </tr> <tr> <td>Neutral</td> <td>1</td> </tr> </table> <p>Knowledgeable: ensure broad awareness and understanding of the project through communication.</p> <table border="1" data-bbox="375 951 743 1077"> <tr> <td>Strongly agree</td> <td>6</td> </tr> <tr> <td>Somewhat agree</td> <td>4</td> </tr> </table> <p>Transparent: clear, timely (reliable), accessible communication, including data and reports pertinent to the project are essential. Project communications should flow through consistent channels (i.e. Sparwood.ca/livable), and designated channels should be the authority on the most up to date information (to avoid spread of misinformation).</p> <table border="1" data-bbox="375 1255 743 1444"> <tr> <td>Strongly agree</td> <td>6</td> </tr> <tr> <td>Somewhat agree</td> <td>3</td> </tr> <tr> <td>Neutral</td> <td>1</td> </tr> </table> <p>Grant Agency: engagement efforts should create a sense of agency for the community. Community members will be more engaged if they believe they can have an impact. Community input should translate into change, and if it doesn't, it needs to be clear why (i.e. dispute resolution). Inputs, and any resulting changes, need to be tracked and reported.</p> <table border="1" data-bbox="375 1623 743 1749"> <tr> <td>Strongly agree</td> <td>8</td> </tr> <tr> <td>Somewhat agree</td> <td>2</td> </tr> </table> <p>Create Space: being able to physically and/or mentally participate in engagement activities is a privilege that not all members of our community possess. Engagement efforts should create space for underprivileged and underrepresented voices in the community.</p>	Strongly agree	5	Somewhat agree	4	Neutral	1	Strongly agree	6	Somewhat agree	4	Strongly agree	6	Somewhat agree	3	Neutral	1	Strongly agree	8	Somewhat agree	2
Strongly agree	5																				
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	<table border="1"> <tr> <td>Strongly agree</td> <td>7</td> </tr> <tr> <td>Somewhat agree</td> <td>3</td> </tr> </table>	Strongly agree	7	Somewhat agree	3	<p>Engage Early and often (i.e. frequency &amp; timing): engagement should be done early in the project (and early in individual sub-processes, i.e. livability study) and often. "One and done" is not appropriate for a multi-decade long mining project. - Strongly</p> <table border="1"> <tr> <td>Strongly agree</td> <td>10</td> </tr> </table> <p>Manage Expectation: project communications and engagement efforts should set clear expectations for how community input will be used. Not all efforts will hit the 'empower' level of engagement, nor should they necessarily. - Strongly</p> <table border="1"> <tr> <td>Strongly agree</td> <td>7</td> </tr> <tr> <td>Somewhat agree</td> <td>2</td> </tr> <tr> <td>Neutral</td> <td>1</td> </tr> </table>	Strongly agree	10	Strongly agree	7	Somewhat agree	2	Neutral	1
Strongly agree	7													
Somewhat agree	3													
Strongly agree	10													
Strongly agree	7													
Somewhat agree	2													
Neutral	1													
<p><b>Do you have any recommendations or feedback on the Principle of Engagement ?</b></p>	<p>Communication is a development for good relationships</p> <p>Continue to use all methods of Engagement</p> <p>Managing expectations will always be a challenge but that is why feedback and follow up should be undertaken</p>													
<p><b>8.1.2: Do you have any recommendations or feedback on frequency and timing?</b></p>	<table border="1"> <tr> <td>No, agree with flexible approach as needed.</td> <td></td> </tr> <tr> <td>No, I agree with the frequency and timing.</td> <td></td> </tr> <tr> <td>Follow through as planned will be accepted</td> <td></td> </tr> <tr> <td>None</td> <td></td> </tr> <tr> <td>I agree with frequency and timing now</td> <td></td> </tr> </table>		No, agree with flexible approach as needed.		No, I agree with the frequency and timing.		Follow through as planned will be accepted		None		I agree with frequency and timing now			
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None														
I agree with frequency and timing now														
<p><b>Do you have any recommendations or feedback on the location of engagement activities?</b></p>	<p>I would recommend posting on social media that the report is posted at the 3 offices for those who are interested. For events and meetings, I recommend either in person or on zoom but not a mix of both. It is hard for the chair to manage and the people in the room (not attending virtually) tend to dominate the meeting.</p> <p>Hopefully we can get to in-person engagements more often, depending on Covid constraints.</p> <p>The Committee has adapted well to the realities of Covid-19 and online meetings but those that have been attended in-person create a much more personal and connected environment.</p> <p>Utilize DOS Social media/website to post information</p> <p>Can the Engagement activities be advertised in brief on the electronic board in Sparwood. e.g. "Teck annual report at the Teck, DOS and the Library."</p>													



	<p>Added to Sparwood wed page</p> <hr/> <p>Possibly also post the annual report on the Sparwood web page</p>
Do you have any recommendations or feedback on the documentation ?	No changes
Do you have any recommendations or feedback on the dispute resolution process?	No changes
Do you have any recommendations or feedback on the external advice and expertise process?	Fernie Press prints are poorly readable. I quite often cannot define boundaries printed in the Press.
Do you have any recommendations or feedback on the conceptual closure plan?	<p>It is possible that the community and Teck could benefit from some early-stage thinking and objectives around a conceptual closure plan. Teck is beginning to raise awareness and advance some closure planning initiatives internally and while I do not consider there to be urgency on this item, I do consider it to be important and one that could be initiated.</p> <p>ensure that the closed lands are not held as "No Access" in perpetuity.</p> <p>All of these groups are of future developmental planning with success. It is therefore advise to communicate early whilst the mine is planning ahead.</p> <p>Should be discussed with community to allow people to see process</p>
Do you have any recommendations or feedback on the schedule?	<p>I may be wrong, but I believe in the past, we discussed having a meeting in March or early April to approve the SCEEMP annual report prior to submitting it.</p> <p>The schedule in conjunction with special meetings as required has worked well so far.</p>
Do you have any recommendations or feedback on the roles and responsibilities ?	<p>Would like to see a Teck HO rep on boards</p> <p>Roles should be brought up and discussed with committee</p>

Do you have any recommendations or feedback on change management?	No changes
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