



# Blackwater Mine



## Community Effects Monitoring and Management Plan Report

## Table of Contents

Executive Summary .....	4
Acronyms and Abbreviations .....	8
1.0 Introduction .....	10
1.1 Blackwater Mine Overview .....	10
1.2 Purpose and Scope.....	11
1.3 Compliance Obligations .....	11
2.0 Methods .....	12
2.1 Communities .....	12
2.2 Predicted Impacts and Indicators .....	12
2.3 Information Sources .....	18
2.4 Data Limitations and Challenges .....	18
3.0 Population and Demographics .....	21
3.1 Predictions .....	21
3.2 Data.....	21
3.3 Interpretation .....	26
3.4 Summary of Mitigation Measures.....	26
4.0 Regional and Community Services .....	27
4.1 Educational Services.....	27
4.2 Health Services .....	34
4.3 Protective Services .....	44
4.4 Social Services.....	49
5.0 Family and Community Well-being .....	52
5.1 Predictions .....	52
5.2 Data.....	53
5.3 Interpretation .....	62
5.4 Summary of Mitigation Measures.....	63
6.0 Engagement and Feedback.....	64
6.1 Engagement with Aboriginal Groups, Land Users and Tenure Holders Data .....	64
6.2 Community Feedback Mechanism Summary .....	64
6.3 Summary of Mitigation Measures.....	65
7.0 Conclusions and Recommendations .....	66
7.1 Conclusion .....	66
7.2 Recommendations .....	66
8.0 References.....	67

Appendix A – Mitigation Measures .....	70
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## List of Tables

Table ES-1: Summary of Monitoring Results (Early Works) .....	5
Table 2.2-1: Potential Effects and Indicators to Support Socio-Economic Effects Monitoring .....	14
Table 3.2-1: Registered On- and Off-Reserve Population by First Nation (October and December 2022) .....	23
Table 3.2-2: Mine Employment by Community – BW Gold Employees Only .....	23
Table 4.1-1: Total Hours of Training Delivered to BW Gold Employees and Contractors .....	32
Table 4.2-1: General ICBC Motor Vehicle Accidents by Roadway and Municipality (2022) – (not related to BW Gold) .....	40
Table 4.3-1: Number and Type of Health and Safety Incidents on Site (Early Works) .....	48
Table 5.2-1: Total and Average Income Paid to BW Gold Employees .....	55
Table 5.2-2: Number of Employees Resigned Due to Family Reasons (January 1 to March 31, 2023) ....	61
Table 5.2-3: Mine Turnover Rates (January 1 to March 31, 2023) .....	62

## List of Figures

Figure 2.1-1: Socio-Economic Local and Regional Study Areas with CEMMP Primary Communities .....	13
Figure 3.2-1: Population Estimates by Non-Reserve Community (2018-2022).....	22
Figure 3.2-2: Mobility Status One Year Prior to Census Survey by Migrant Type and Non-Reserve Community .....	24
Figure 3.2-3: Internal Migrant Status by Census Year and Reserve .....	25
Figure 3.2-4: Mobility Status Five Years Prior to Census Survey by Migrant Type and Non-Reserve- Community .....	25
Figure 4.1-1: Average Kindergarten Class Size by School District (2018-2023) .....	28
Figure 4.1-2: Average Grades 1-3 Class Size by School District (2018-2023).....	29
Figure 4.1-3: Average Grades 4-7 Class Size by School District (2018-2023).....	29
Figure 4.1-4: Average Grades 8-12 Class Size by School District (2018-2023).....	29
Figure 4.1-5: School District Enrolment Numbers (2018-2023) .....	30
Figure 4.1-6: UNBC Student Headcount by Campus (2018-2023).....	30
Figure 4.1-7: CNC Student Headcount by Campus (2018-2023) .....	31
Figure 4.1-8: CNC Student Headcount by Primary Community (2018-2023) .....	31
Figure 4.2-1: Number of Times Health Care Emergency Services Were Accessed by Mine Workers.....	37
Figure 4.2-2: Type and Number of Medical Visits to On-Site Medical Facilities (Occupational).....	37
Figure 4.2-3: Type and Number of Medical Visits to On-Site Medical Facilities (Non-Occupational) .....	38

Figure 4.2-4: Police-Reported Crash Data (TAS) by Primary Community (September-December, 2021 and 2022).....	41
Figure 4.2-5: Police-Reported Crash Data (TAS) by Primary Community (2018-2022) .....	41
Figure 4.2-6: ICBC-Reported Crash Data by Community (September-December, 2021 and 2022) .....	42
Figure 4.2-7: ICBC-Reported Crash Data by Community (2018-2022) .....	42
Figure 4.3-1: Number of Criminal Code Offences by RCMP Detachment (2018-2022) .....	46
Figure 4.3-2: Total Crime Rate by RCMP Detachment (2018-2022) .....	46
Figure 4.3-3: Number of Violent Offences by RCMP Detachment (2018-2022) .....	47
Figure 5.2-1: Indigenous Employment by Gender (BW Gold only).....	54
Figure 5.2-2: Average Employment Income Among Recipients (\$, CAD) by Community and Gender (2020).....	55
Figure 5.2-3: Median Employment Income Among Recipients (\$, CAD) by Community and Gender (2020).....	56
Figure 5.2-4: Number of Drug Offences by RCMP Detachment (2018-2022) .....	57
Figure 5.2-5: Number of Vehicle Theft Offences by RCMP Detachment (2018-2022) .....	58
Figure 5.2-6: Number of Property Offences by RCMP Detachment (2018-2022) .....	59
Figure 5.2-7: Community Well-Being Index Score by Non-Reserve Community (2016).....	59
Figure 5.2-8: Community Well-Being Education, Housing, Labour, and Income Scores by Non-Reserve Community (2016) .....	60
Figure 5.2-9: Community Well-Being Score by Reserve (2016) .....	60

## Executive Summary

This Community Effects Monitoring and Management Plan Report (CEMMP-R) presents socio-economic monitoring results for the Blackwater Mine (the Mine), for the Early Works period (September 1, 2022 to March 31, 2023). The report is prepared in compliance with Condition 37 of the Environmental Assessment Certificate (June 21, 2019) and aligns with the monitoring process outlined in the Community Effects Monitoring and Mitigation Plan (CEMMP; ERM 2021). This is the first CEMMP-R for the Mine.

The purpose of the CEMMP-R is to compile monitoring data to support assessment of the accuracy of socio-economic predictions from the Application/Environmental Impact Statement (EIS), identify any unanticipated effects associated with the Mine, and support understanding of the effectiveness of mitigation measures. This CEMMP-R is the first monitoring report produced in accordance with the CEMMP and provides an update on socio-economic indicators described in the CEMMP Baseline Report (CEMMP-B). This CEMMP-R organizes monitoring results by six (6) categories: population and demographics, regional and community services (i.e., educational, health, protective, and social services), and family and community well-being. Monitoring and management of potential effects is undertaken through the collection and interpretation of data and information for specific socio-economic indicators organized by these six (6) categories and related potential effects. Sources of information include BW Gold-specific data, data and information obtained from public sources such as Statistics Canada, data and information obtained from the Community Liaison Committee (CLC), and other organizations, by request.

Table ES-1 summarizes the implemented mitigation measure, monitored effects and results (including anticipated and observed effects directions/trends), an assessment of the effectiveness of the implemented mitigation measures, and alignment of the predicted effect with the observed effect.

Throughout Early Works, BW Gold engaged with Indigenous groups, the public, and stakeholders through a variety of in-person and virtual activities. Common themes of engagement during Early Works included general interest in business and employment opportunities and the transmission line construction schedule. BW Gold promoted the Community Feedback Mechanism to Indigenous groups, the public and stakeholders through various methods. During Early Works, 11 complaints were received through the Community Feedback Mechanism, which were focused on the transmission line routing, traffic, and vehicle use by Mine employees. All complaints were resolved.

BW Gold will continue to mitigate and manage potential community effects using a range of measures. BW Gold will also monitor potential effects identified in the CEMMP, and the effectiveness of mitigation measures.

The second CEMMP-R will cover the construction period from April 1, 2023 to December 31, 2023.

**Table ES-1: Summary of Monitoring Results (Early Works)**

Category	Monitored Effect	Anticipated Trend (Construction)	Trend (Based on Interpreted Data)	Implemented Mitigation	Monitoring Results during Early Works	Alignment with Prediction	Mitigations Effectiveness Review
Population and demographics	Change in population due to Mine workforce and their families	↑	Indeterminate	<ul style="list-style-type: none"> <li>• Focused recruitment and hiring efforts on primary communities</li> <li>• Provided self-contained camp to accommodate workers</li> </ul>	<ul style="list-style-type: none"> <li>• Population estimates were stable between 2021 and 2022 for non-reserve primary communities, while registered on-reserve population increased from October to December 2022. It is unlikely that this increase was related to Mine employment.</li> <li>• BW Gold and Contractors hired a total of 344 employees during Early Works. Data disaggregated by community was limited.</li> <li>• One employee relocated to work for BW Gold during the 2022 calendar year.</li> </ul>	<ul style="list-style-type: none"> <li>• No notable changes to population or demographics in primary communities.</li> </ul>	<ul style="list-style-type: none"> <li>• Effective</li> </ul>
Regional and Community Services (Educational Services)	Change in demand for education services due to Mine workforce and their families	↔	↔	<ul style="list-style-type: none"> <li>• Focused recruitment and hiring efforts on primary communities</li> <li>• Provided self-contained camp to accommodate workers (Mine camp will reduce or limit in-migration and related demand for school services by families of workers)</li> <li>• Worked with training institutions to support or provide training programs (this measure will aim to increase employment from primary communities)</li> </ul>	<ul style="list-style-type: none"> <li>• A total of 14,612 hours of training was provided to BW Gold employees and contractors, with an average of 42 hours of training per worker.</li> <li>• During Early Works, BW Gold participated in 55 employment-related events.</li> <li>• Demand for education services in primary communities was consistent with trends prior to this period when compared to Early Works.</li> </ul>	<ul style="list-style-type: none"> <li>• No evidence that the Mine contributed to an increase in average class sizes or resulted in changes to the overall school enrolment. Aligned with prediction.</li> </ul>	<ul style="list-style-type: none"> <li>• Effective</li> </ul>
Regional and Community Services (Health Services)	Change in demand for health services due to Mine workforce and their families	↔	↔	<ul style="list-style-type: none"> <li>• Provided self-contained camp to accommodate workers (this will work to offset Mine's demands for health services)</li> <li>• Provided on-site nurse and emergency services, and developed and implemented a medical protocol to meet the workforce's urgent and non-urgent health care needs</li> <li>• Provided an Employee Assistance Program</li> </ul>	<ul style="list-style-type: none"> <li>• Health services remained at or above capacity, with all trends in line with conditions prior to Early Works. Some changes to staffing and additional services took place.</li> <li>• Local health care emergency services were accessed by the Mine 22 times during Early Works, with all cases being ER visits at St. John Hospital in Vanderhoof.</li> <li>• During Early Works, there were a total of 264 visits to on-site medical facilities for non-occupational (189 visits) and occupational (75) reasons.</li> </ul>	<ul style="list-style-type: none"> <li>• Services remain at or above capacity as described in the CEMMP Baseline, with all trends in line with conditions prior to Early Works. Aligned with prediction.</li> </ul>	<ul style="list-style-type: none"> <li>• Effective</li> </ul>
	Mine-related traffic or worksite incidents resulting in changes in the demand for health services	↑	↔	<ul style="list-style-type: none"> <li>• Provided on-site nurse and emergency services, and develop and implement a medical protocol to meet the workforce's urgent and non-urgent health care needs</li> <li>• Promoted a harassment-free workplace to its employees and maintained a zero tolerance alcohol and drug policy on-site and in camp at any time; participation in training, recognition by other employees, and violations were tracked and were not tolerated</li> <li>• Required a medical exam and a drug test for all new employees; random drug testing may also be conducted on site, as required</li> <li>• Provided at the site health and medical equipment and personnel to meet the requirements of the "Health, Safety and Reclamation Code for Mines in British Columbia" and WorkSafe BC</li> <li>• Worked with local service providers to address changes in demand for health services</li> </ul>	<ul style="list-style-type: none"> <li>• No car crashes involving BW Gold employees or contractors while on the job were reported during Early Works. Changes in car crash trends reported to the police and ICBC were minimal and generally aligned with prior data or trends.</li> <li>• BW Gold conducted 414 crew toolbox discussions. Nine health-related policies were implemented and another four were initiated during Early Works.</li> </ul>	<ul style="list-style-type: none"> <li>• No evidence the Mine put pressure on health services required in relation to traffic incidents and accidents. No evidence of change, but data is not indicative of an adverse effect or ineffective mitigation.</li> </ul>	<ul style="list-style-type: none"> <li>• Effective</li> </ul>

Category	Monitored Effect	Anticipated Trend (Construction)	Trend (Based on Interpreted Data)	Implemented Mitigation	Monitoring Results during Early Works	Alignment with Prediction	Mitigations Effectiveness Review
Regional and Community Services (Protective Services)	Change in demand for protective services as a result of Mine-related transient workforce or in-migration	↑	Indeterminate	<ul style="list-style-type: none"> <li>• Focused recruitment and hiring efforts on primary communities</li> <li>• Provided self-contained camp to accommodate workers</li> <li>• Promoted a harassment-free workplace to its employees and maintained a zero-tolerance alcohol and drug policy on-site and in camp at any time; participation in training, recognition by other employees and violations were tracked, and violations were not tolerated</li> </ul>	<ul style="list-style-type: none"> <li>• There was low-to-no in-migration to primary communities during Early Works.</li> <li>• No ambulance, fire department, or RCMP services accessed by the Mine during Early Works.</li> <li>• No conclusive relationship can be determined between annual crime data and Early Works activities.</li> </ul>	<ul style="list-style-type: none"> <li>• No conclusive correlation or causation between Early Works activities and crime in primary communities, including linked to the context of low to no in-migration. Change is not linked to the Mine or aligned with the prediction, and data is not indicative of an adverse effect or ineffective mitigation.</li> </ul>	<ul style="list-style-type: none"> <li>• Effective</li> </ul>
	Mine-related traffic and worksite incidents change demand for protective services	↑	↔	<ul style="list-style-type: none"> <li>• Worked with Northern Health, local fire departments, RCMP, and BC Ambulance to ensure that the appropriate information on the changes in area transportation volumes, Mine operations, and the change to the local population were considered</li> <li>• Provided firefighting equipment and trained personnel to meet all onsite fire and rescue needs</li> <li>• Trained Mine rescue personnel and provided Mine rescue equipment as well as on-site security</li> </ul>	<ul style="list-style-type: none"> <li>• 9,859 incidents occurred on-site during Early Works, the majority of which (9,033) were last minute risk assessments. Hazards were reported 625 times.</li> <li>• Regular meetings occurred between BW Gold and Northern Health during Early Works, and a mutual aid agreement was signed between BW Gold and the Vanderhoof Fire Department in October 2022.</li> </ul>	<ul style="list-style-type: none"> <li>• No evidence of Mine-related traffic or worksite incidents resulting in change in demand for protective services. No evidence of change, but data is not indicative of an adverse effect or ineffective mitigation.</li> </ul>	<ul style="list-style-type: none"> <li>• Effective</li> </ul>
Regional and Community Services (Social Services)	Change in demand for social services due to Mine workforce and their families	↔	Indeterminate	<ul style="list-style-type: none"> <li>• Focused recruitment and hiring efforts on primary communities</li> <li>• Promoted harassment-free workplace to its employees and maintain zero tolerance alcohol and drug policy on-site and in camp at any time; participation in training, recognition by other employees and violations will be tracked; violations will not be tolerated</li> <li>• Provided an Employee Assistance Program</li> <li>• Implemented measures to facilitate a respectful workplace and safety and security of employees; focus on multi-cultural workforce considerations and provide Aboriginal cultural awareness training delivered to all new employees (e.g., training completed during first week of employment and ongoing through crew talks)</li> </ul>	<ul style="list-style-type: none"> <li>• A total of 17 individuals (including Mine employees and family members) accessed the Employee Assistance Program (EAP), with a total of thirty uses (30) from July 2022 to June 2023.</li> <li>• Data on the demand social services in primary communities was unavailable for the Early Works period.</li> </ul>	<ul style="list-style-type: none"> <li>• Limited / insufficient data available. Not possible to draw a conclusive link between Mine workers' use of social services during Early Works and any change in the ability for local service providers to support the local population</li> </ul>	<ul style="list-style-type: none"> <li>• Effective, based on lack of complaints received through the Community Feedback Mechanism and/or concerns raised by CLC members, including social services providers (e.g., Northern Health)</li> </ul>
Family and Community Well-being	Mine-related employment reduces economic hardship of families in local communities	↓	↔	<ul style="list-style-type: none"> <li>• Focused recruitment and hiring efforts on primary communities</li> </ul>	<ul style="list-style-type: none"> <li>• The majority of the 72 BW Gold employees were male and non-Indigenous.</li> <li>• A total of \$9,529,948 in income was paid to direct BW Gold employees during Early Works, with an average income of \$113,451, annually.</li> </ul>	<ul style="list-style-type: none"> <li>• Possible that Mine-related employment and income reduced economic hardship of those hired from local communities. Aligned with prediction.</li> </ul>	<ul style="list-style-type: none"> <li>• Effective</li> </ul>
	Changes to family and community well-being for employees from local communities as a result of poor income spending decisions	↓	↔	<ul style="list-style-type: none"> <li>• Deposited workers' salaries in their bank accounts and provide access to financial literacy training (Employee Assistance Program)</li> <li>• Provided an Employee Assistance Program (including counselling services)</li> <li>• Offered reasonably short shift rotations to minimize separation from family (14 days on and 14 off) and allowed flexibility to accommodate hard to fill positions</li> <li>• Ensured phone and Internet services were available to enable employees to communicate with their families</li> </ul>	<ul style="list-style-type: none"> <li>• No individuals accessed financial/budgeting support through the EAP.</li> </ul>	<ul style="list-style-type: none"> <li>• No evidence of a negative income effect on spending decisions of employees from local communities. Aligned with prediction.</li> </ul>	<ul style="list-style-type: none"> <li>• Effective</li> </ul>

Category	Monitored Effect	Anticipated Trend (Construction)	Trend (Based on Interpreted Data)	Implemented Mitigation	Monitoring Results during Early Works	Alignment with Prediction	Mitigations Effectiveness Review
	Changes to inequality of employment and income as a result of Mine employment and training	NA	NA	<ul style="list-style-type: none"> <li>• Focused recruitment and hiring efforts on primary communities</li> <li>• Implemented a hiring strategy that focused on training workers from diverse groups</li> <li>• Worked with Aboriginal Groups to identify and remove barriers to employment and training</li> </ul>	<ul style="list-style-type: none"> <li>• No updated data was available for average and median income at the community level.</li> </ul>	<ul style="list-style-type: none"> <li>• No evidence that the Mine increased the inequality in primary community as a result of Mine employment and training during Early Works. No prediction.</li> </ul>	<ul style="list-style-type: none"> <li>• Effective. Effective. No evidence that inequity is being caused or exacerbated by the Mine.</li> </ul>
	Change in family health and wellbeing (e.g., sense of security) due to Mine-related transient population engaging in socially disruptive or illegal activities	↓	Indeterminate	<ul style="list-style-type: none"> <li>• Provided a self-contained camp to accommodate workers</li> <li>• Provided an Employee Assistance Program (including counselling services)</li> <li>• Provided Aboriginal cultural awareness training to all new employees (e.g., training completed during first week of employment and ongoing through crew talks)</li> <li>• Required BW Gold managers/supervisor to receive cultural awareness training that also teaches them how to address and resolve issues if they arise</li> <li>• Provided micro-aggression training to all new employees, and on an as-needed basis to promote a harassment-free workplace</li> <li>• Engaged with stakeholders to identify community needs and priorities for social investment that focus on respecting community values</li> <li>• Collaborated and partnered with stakeholders to mitigate and avoid social impacts</li> <li>• Implemented a feedback mechanism</li> </ul>	<ul style="list-style-type: none"> <li>• No conclusive relationship can be determined between annual crime data and Early Works activities.</li> <li>• BW Gold has not received any feedback or comments on mental health changes in primary communities from the public or the CLC.</li> </ul>	<ul style="list-style-type: none"> <li>• No evidence that the Mine impacted the sense of security in primary communities due to Mine-related transient population engaging in socially disruptive activities. Change is lower than the prediction, and data is not indicative of an adverse impact or ineffective mitigation.</li> </ul>	<ul style="list-style-type: none"> <li>• Effective</li> </ul>
	Change in family relationships of Mine employees in local communities due to work rotation/schedule	↓	Indeterminate	<ul style="list-style-type: none"> <li>• Offered reasonably short shift rotations to minimize separation from family (e.g., 14 days on and 14 off) and allow flexibility to accommodate hard-to-fill positions</li> <li>• Ensured phone and Internet services are available to enable employees to communicate with their families</li> <li>• Provided an Employee Assistance Program (this included counselling services)</li> <li>• Engaged with stakeholder to identify community needs and priorities for social investment that focus on respecting community values</li> <li>• Collaborated and partnered with stakeholders to mitigate and avoid social impacts</li> <li>• Implemented a feedback mechanism</li> </ul>	<ul style="list-style-type: none"> <li>• Male employees made up the majority of the Mine workforce and had the highest turnover rate, while Indigenous women had the lowest turnover rate.</li> <li>• There were two family-related resignations from the BW Gold workforce from January 1<sup>st</sup> to March 31<sup>st</sup>, 2023, both by male employees.</li> </ul>	<ul style="list-style-type: none"> <li>• Insufficient data to determine if Early Works period resulted in changes to family relationships of Mine employees in local communities due to work rotation or schedule.</li> </ul>	<ul style="list-style-type: none"> <li>• Effective, based on lack of complaints received through the Community Feedback Mechanism and/or concerns raised by CLC members.</li> </ul>



# Acronyms and Abbreviations

<b>Aboriginal Groups or Indigenous Nations</b>	Aboriginal Groups include: Lhoosk'uz Dené Nation, Ulkatcho First Nation, Nadleh Whut'en First Nation, Stelat'en First Nation, Saik'uz First Nation, and Nazko First Nation (as defined in the Mine's Environmental Assessment Certificate #M19-01)
<b>Artemis</b>	Artemis Gold Inc.
<b>BC</b>	British Columbia
<b>BC EAO</b>	British Columbia Environmental Assessment Office
<b>BW Gold</b>	BW Gold Ltd.
<b>CEA Agency</b>	Canadian Environmental Assessment Agency
<b>CEMMP</b>	Community Effects Monitoring and Management Plan
<b>CEMMP-B</b>	Community Effects Monitoring and Management Plan Baseline Report
<b>CEMMP-R</b>	Community Effects Monitoring and Management Plan Report
<b>CIRNAC</b>	Crown-Indigenous and Northern Affairs Canada
<b>CLC</b>	Community Liaison Committee
<b>CNC</b>	College of New Caledonia
<b>CDSA</b>	<i>Controlled Drugs and Substances Act</i>
<b>CWB index</b>	Community Well-being Index
<b>CY</b>	City
<b>DM</b>	District Municipality
<b>DS</b>	Decision Statement
<b>EAC</b>	Environmental Assessment Certificate
<b>EIS</b>	Environmental Impact Statement
<b>EOS</b>	Emergency Operation Centre
<b>ER</b>	Emergency Room
<b>ERM</b>	ERM Consultants Canada Ltd.
<b>FIPPA</b>	<i>Freedom of Information and Protection of Privacy Act</i>
<b>FTE</b>	Full Time Equivalent
<b>FSR</b>	Forest Service Road
<b>IAAC</b>	Impact Assessment Agency of Canada
<b>ICBC</b>	Insurance Corporation of British Columbia
<b>IR</b>	Indian Reserve
<b>ISC</b>	Indigenous Services Canada
<b>ISOS</b>	International SOS
<b>LDN</b>	Lhoosk'uz Dené Nation

<b>LSA</b>	Local Study Area
<b>MiHR</b>	Mining Industry Human Resources Council
<b>Mine</b>	Blackwater Mine
<b>MSP</b>	Medical Services Provider
<b>Mtpa</b>	million tonnes per annum
<b>NFN</b>	Nazko First Nation
<b>NH</b>	Northern Health
<b>NWFN</b>	Nadleh Whut'en First Nation
<b>OFA</b>	Occupational First Aid
<b>PPE</b>	Personal Protective Equipment
<b>RCMP</b>	Royal Canadian Mounted Police
<b>RN</b>	Registered Nurse
<b>RSA</b>	Regional Study Area
<b>SD27</b>	School District No 27 – Cariboo-Chilcotin
<b>SD28</b>	SD28 School District No 28 – Quesnel
<b>SD57</b>	School District No 57 – Prince George
<b>SD91</b>	School District No 91 – Nechako Lakes
<b>SFN</b>	Saik'uz First Nation
<b>StFN</b>	Stellat'en First Nation
<b>T</b>	Town
<b>TAS</b>	Traffic Accident System
<b>t/d</b>	tonnes per day
<b>TSF</b>	Tailings storage facility
<b>UFN</b>	Ulkatcho First Nation
<b>UNBC</b>	University of Northern British Columbia
<b>VL</b>	Village
<b>WHMIS</b>	Workplace Hazardous Materials Information System

# 1.0 Introduction

## 1.1 Blackwater Mine Overview

### 1.1.1 The Blackwater Mine

The Blackwater Mine (the Mine)<sup>1</sup> is a gold and silver open pit mine located in central British Columbia (BC), approximately 112 kilometres (km) southwest of Vanderhoof, 160 km southwest of Prince George, and 446 km northeast of Vancouver, BC.

The Mine site is accessed via the Kluskus Forest Service Road (FSR), the Kluskus-Ootsa FSR, and an exploration access road which connects to the Kluskus-Ootsa FSR at km 146. The Kluskus FSR joins Highway 16 approximately 10 km west of Vanderhoof. A new, approximately 13.8 km road (Mine Access Road) will be built to replace the existing exploration access road, which will be decommissioned. The new planned access is at km 124.5. Driving time from Vanderhoof to the Mine site is about 2.5 hours.

Major Mine components include a tailings storage facility (TSF), ore processing facilities, waste rock, overburden and soil stockpiles, borrow areas and quarries, water management infrastructure, water treatment plants, accommodation camps and ancillary facilities. The gold and silver will be recovered into a gold-silver doré product and shipped by air and/or transported by road. Electrical power will be supplied by a new approximately 135 km, 230 kilovolt (kV) overland transmission line that will connect to the BC Hydro grid at the Glenannan substation located near the Endako mine, 65 km west of Vanderhoof.

The Mine site is located within the traditional territories of Lhoosk'uz Dené Nation (LDN), Ulkatcho First Nation (UFN), Skin Tyee Nation and Tsilhqot'in Nation. The Kluskus and Kluskus-Ootsa FSRs and Mine transmission line cross the traditional territories of Nadleh Whut'en First Nation (NWFN), Saik'uz First Nation (SFN), and Stelat'en First Nation (StFN; collectively, the Nechako Nations<sup>2</sup>) as well as the traditional territories of the Nazko First Nation (NFN), Nee-Tahi-Buhn Band, Cheslatta Carrier Nation and Yekooche First Nation (BC EAO, 2019a, 2019b).

### 1.1.2 Schedule

As of December 31, 2023, overall construction was 59% complete and is ongoing. Clearing of the transmission line right of way connecting the Mine site to the BC Hydro Glenannan substation has commenced and construction will proceed in the first half of 2024. The Mine construction is on schedule for the first pour of gold in H2 2024. The period of September 1, 2022, to March 31, 2023 covers early construction activities (or Early Works).

Mine development is currently planning to be phased with an initial milling capacity of 15,000 tonnes per day (tpd) or 5.5 million tonnes per annum (Mtpa) for the first five years of operation. After the first five years, the milling capacity will increase to 33,000 tpd (or 12 Mtpa) for the next five-years, and to 55,000 tpd (or 20 Mtpa) in Year +11 until the end of the 22 year Mine life. The closure phase is Year +23 to approximately Year +45 years, ending when the Open Pit has filled to the target closure level and the

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<sup>1</sup> Note that previous documents related to the CEMMP, including the CEMMP Baseline (CEMMP-B) Report, referred to the Blackwater Mine as the "Project". When referencing specific regulatory documents or elements of the regulatory process prior to reception of Environmental Assessment Certificate #M19-01 (EAC), the term "Project" may be used. Predicted effects outlined in this CEMMP-R use the term "Mine" to reflect that construction is ongoing as project approval has been received.

<sup>2</sup> These three First Nations were previously referred to in documents related to the CEMMP as the Carrier Sekani First Nations, or CSFNs. A change in terminology, beginning with this CEMMP-R, reflects the updated terminology used by BW Gold across operations.

TSF is allowed to passively discharge to Davidson Creek via a closure spillway. The post-closure phase begins in Year +46.

### 1.1.3 Project Certificate

New Gold Inc. (New Gold) received Environmental Assessment Certificate #M19-01 (EAC) on June 21, 2019 under the 2002 *Environmental Assessment Act* (BC EAO, 2019c) and a Decision Statement (DS) on April 15, 2019 under the Canadian Environmental Assessment Act, 2012 (CEA Agency, 2019). In August 2020, Artemis Gold Inc. (Artemis) acquired the mineral tenures, assets and rights in the Blackwater Mine that were previously held by New Gold. On August 7, 2020, the Certificate was transferred to BW Gold Ltd. (BW Gold), a wholly-owned subsidiary of Artemis, under the 2018 Environmental Assessment Act. In December 2022, the Impact Assessment Agency of Canada (IAAC) concluded an analysis of proposed changes to the Mine, including extension of duration of the operation phase, reducing duration of the closure phase, and change in the capacity for the construction and operations camps. IAAC's analysis concluded that the proposed changes would not increase the extent to which the effects of the Mine are adverse, and that existing conditions in the Decision Statement (DS) were sufficient to address potential interactions between the Mine and valued components (IAAC, 2022).

## 1.2 Purpose and Scope

The Community Effects Monitoring and Mitigation Plan (CEMMP; ERM, 2021), prepared in 2022 in compliance with the EAC Condition 37, provides a process to monitor and mitigate the Mine's potential socio-economic effects on Indigenous nations, nearby communities- and other stakeholders. One of the requirements of the CEMMP is to prepare the CEMMP Report (CEMMP-R) during the construction, operation, active closure, and temporary care and maintenance phases of the Mine to:

- Present the Project Application/ Environmental Impact Statement (EIS) impact predictions, related data, and interpretation.
- Assess the accuracy of socio-economic predictions from the Application/EIS and identify any unanticipated effects associated with the Mine.
- Assess effectiveness of mitigation measures, and propose adaptive measures as needed.
- Summarize qualitative information from Community Liaison Committee (CLC) members and feedback received through the Mine feedback mechanism to provide further context to BW Gold's understanding, management, and mitigation of social or economic effects of the Mine.

This CEMMP-R covers the Early Works period of construction, from September 1, 2022, to March 31, 2023, and follows the monitoring process outlined in the CEMMP and in Section 2.2 of this document.

This is the first CEMMP-R prepared for the Mine.

## 1.3 Compliance Obligations

The CEMMP addresses the requirements in EAC Condition 37 (b), which requires the Holder to develop a CEMMP. Within Condition 37 (b, iii), the EAC specifies that the CEMMP must include a monitoring program for potential adverse effects from the Project on the communities identified by the CEMMP related to impacts on population and demographics, community services, crime and socially disruptive behaviour, and community and family well-being.

## 2.0 Methods

This CEMMP-R provides monitoring for the following categories: population and demographics, regional and community services (this includes educational, health, protective and social services), and family and community well-being, covering the Early Works construction activities (September 1, 2022, to March 31, 2023).

The following sections provide information on the monitored communities, monitored effects and indicators, information sources references, and data limitations.

Predicted potential effects for the construction phase, operations and the closure phase will be monitored in the future iterations of the CEMMP-R.

## 2.1 Communities

For the purpose of this report, and as defined in the CEMMP, the following primary communities are the focus of this CEMMP-R and related monitoring:

Non-reserve communities, which include two cities, two district municipalities and three villages (as defined by Statistics Canada) as follows:

City:

- Prince George
- Quesnel

District Municipality:

- Vanderhoof
- Fort St. James

Village:

- Fraser Lake
- Burns Lake
- Anahim Lake

First Nations, including the following communities (with most populated reserves for each listed in brackets):

- LDN (Kluskus 1)
- UFN (Ulkatcho 14a and Squinas 2)
- StFN (Stellaquo [Stella] 1)
- NWFN (Nautley [Fort Fraser] 1)
- SFN (Stony Creek 1)
- NFN (Nazco 20)

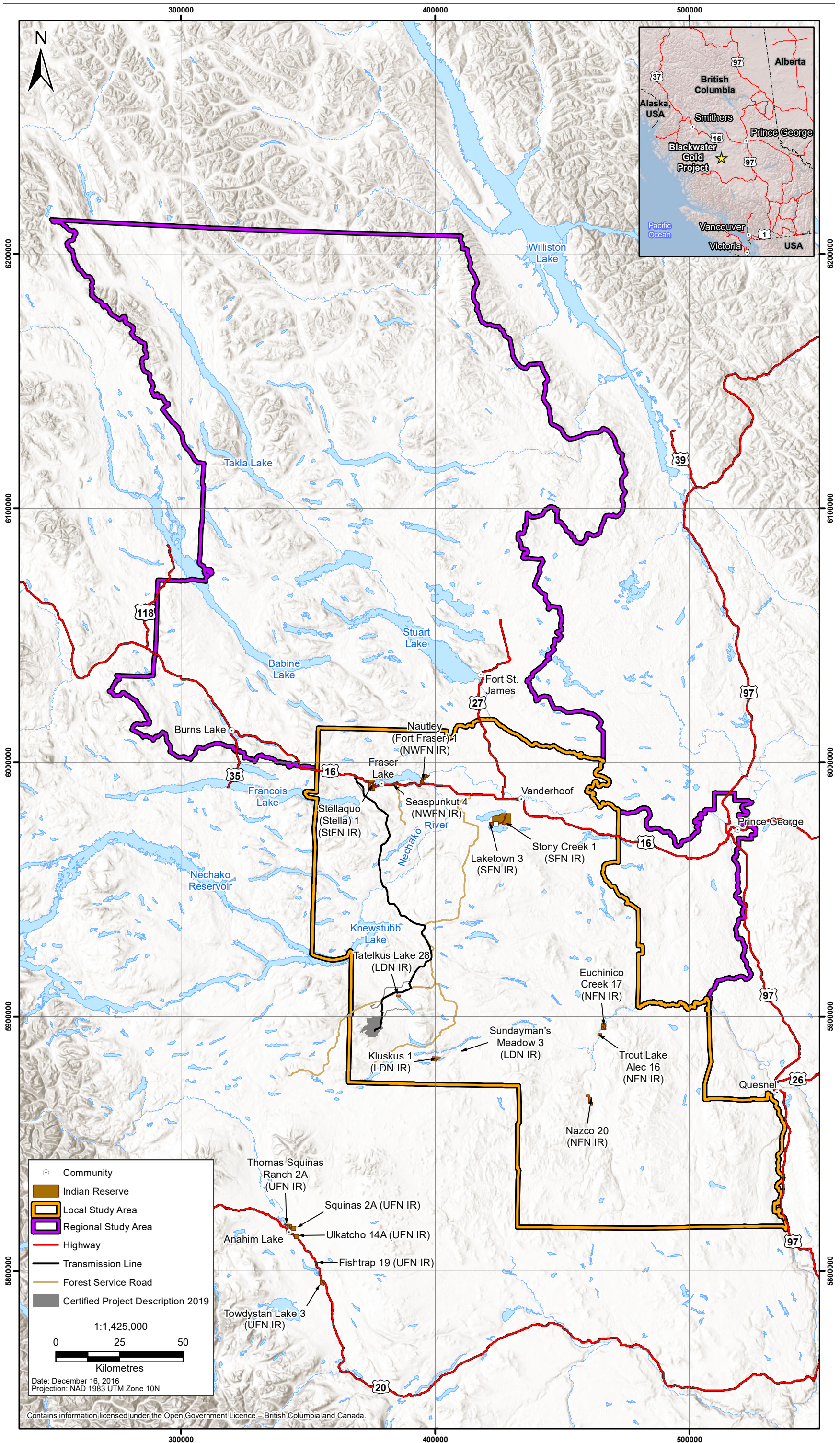
Primary communities were selected from within the Application/EIS Local Study Area (LSA) and the Regional Study Area (RSA), with the exception and addition of Anahim Lake which is included as a primary community although was not within the RSA. Anahim Lake was included as UFN indicated that many of their members live in this community. Figure 2.1-1 shows the location of those communities and reserves in relation to the Mine.

## 2.2 Predicted Impacts and Indicators

Table 2.2-1 lists, by relevant category<sup>3</sup>, the predicted and monitored effects and applicable Mine phases, the anticipated trend for each effect, relevant mitigation measures, as well as proposed monitored indicators and the corresponding data sources for those indicators.

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<sup>3</sup> Categories include population and demographics, regional and community services (this includes, educational, health, protective and social services), and family and community well-being.



**Figure 2.1-1: Socio-economic Local and Regional Study Areas with CEMMP Primary Communities**

**Table 2.2-1: Potential Effects and Indicators to Support Socio-economic Effects Monitoring**

Category	Monitored Effect	Phase(s)	Anticipated Effect Direction or Trend	Monitored Indicators <sup>4</sup>	Source
Population and Demographics	Change in population due to Mine workforce and their families	Construction	↑	<ul style="list-style-type: none"> <li>Population estimates in communities anticipated to experience Mine effects</li> <li>Mine employment by community (employees/contractors)</li> <li>Changes in community residency status of Mine contractors/employees</li> <li>Community-specific in/out-migration data</li> </ul>	<ul style="list-style-type: none"> <li>BC Stats</li> <li>BW Gold</li> <li>Contractors</li> <li>CLC</li> <li>Statistics Canada</li> </ul>
		Operation	↑		
		Closure (first 5 years)	↓		
Regional and Community Services (Educational Services)	Change in demand for education services due to Mine workforce and their families	Construction	↔	<ul style="list-style-type: none"> <li>Class size for elementary/secondary school per community</li> <li>School District (SD) #91 enrolment numbers<sup>5</sup></li> <li>Enrolment at post-secondary institutions and headcount totals, per community</li> <li>Change in demand for educational services as experienced by School Districts, and College of New Caledonia (CNC) (both CLC members) and University of Northern BC (UNBC)</li> <li>Number of Mine-related delivery of training (number, type of training, and participation by community; BW Gold and Contractors)</li> <li>BW Gold participation in job fairs and employment-related events</li> <li>Number of engagements and meetings related to closure planning, per community and/or with CLC</li> </ul>	<ul style="list-style-type: none"> <li>BC Ministry of Education</li> <li>School Districts #91, 28, 57, and 27</li> <li>CNC</li> <li>UNBC</li> <li>BW Gold</li> <li>Contractors</li> <li>CLC</li> </ul>
		Operation	↑		
		Closure	↔		
	Change in demand for training programs and apprenticeship programs due to Mine hiring	Operation	↑	<ul style="list-style-type: none"> <li>Number of Mine apprentices – BW Gold and Contractors (including disaggregated data by gender and other indicators of diversity)</li> <li>Description of collaboration with education facilities, per community</li> <li>Total hours and type of BW Gold on-the-job training/ job-specific training (disaggregated by gender and other indicators of diversity)</li> <li>Number and dollar amount of scholarships (disaggregated by gender of recipient and other indicators of diversity)</li> <li>Number of jobs and Full Time Equivalent (FTEs) for Mine employees/contractors (disaggregated by gender, Aboriginal membership, and other indicators of diversity or vulnerability); total hours and percentage of total hours worked by each group</li> </ul>	<ul style="list-style-type: none"> <li>BW Gold</li> <li>Contractors</li> <li>ITA</li> </ul>

<sup>4</sup> Data collection will focus on those communities that are anticipated to experience socio-economic effects of the Mine (i.e., Vanderhoof, Prince George, Fraser Lake, Burns Lake, Fort St. James, and Quesnel, and the Indigenous communities of UFN, LDN, StFN, SFN, NWFN, and NFN, as well as Anahim Lake as UFN has indicated that many community members live there). In the case that additional communities identify potential effects of the Mine, the indicators and data sources will be adjusted to permit monitoring of those communities. These adjustments will occur within the adaptive management process.

<sup>5</sup> Monitoring is focused on SD91, however, data is provided for all four school districts containing primary communities.

Category	Monitored Effect	Phase(s)	Anticipated Effect Direction or Trend	Monitored Indicators <sup>4</sup>	Source
Regional and Community Services (Health Services)	Change in demand for health services due to Mine workforce and their families	Construction	↔	<ul style="list-style-type: none"> <li>Capacity of emergency services in primary communities (e.g., Intensive Care Unit [ICU] beds, ambulance capacity)</li> <li>Number of times public health care services were accessed per community, total and by key service category</li> <li>Number of times health care emergency services were accessed by the Mine, per provider/per community</li> <li>Statistics on communicable disease rates by community or aggregate (e.g., instances of HIV/AIDS, hepatitis C, gonorrhea, chlamydia, and syphilis)</li> <li>Number of non-local Mine workers that are being referred to local health facilities (for 1. Urgent/non-urgent and 2. Occupational/non-occupational demands)</li> <li>Aggregated data on type and number of medical visits to on-site medical facilities</li> <li>Information on the level and types of health services that are available on-site</li> <li>Number of Diagnostic and Treatment Centre and/or Emergency Room (ER) visits by non-residents, to understand cumulative effects of shadow populations</li> <li>Number of Mine workers referred to the local healthcare system, by key service category/diagnostic type</li> <li>Level of use of Employee Assistance Program (EAP) (disaggregated by gender or other indicators of diversity)</li> <li>Site-management of injuries and accidents</li> <li>Number of engagements and meetings related to closure planning</li> </ul>	<ul style="list-style-type: none"> <li>NH</li> <li>BC Centre for Disease Control</li> <li>Community websites</li> <li>BW Gold</li> <li>Contractors</li> </ul>
		Operation	↔		
		Closure	↔		
Mine-related traffic or worksite incidents resulting in changes in the demand for health services		Construction	↑	<ul style="list-style-type: none"> <li>Motor Vehicle Accident Data</li> <li>Number of times health care emergency services were accessed by the Mine</li> <li>Police-Reported Crash Traffic Accident System (TAS) Data</li> <li>Insurance Corporation of British Columbia (ICBC)-Reported Crash Data</li> <li>Number of crew chats or rollout of health-related policies</li> </ul>	<ul style="list-style-type: none"> <li>ICBC</li> <li>BW Gold</li> <li>Contractors</li> </ul>
		Operation	↑		
		Closure	↔		



Category	Monitored Effect	Phase(s)	Anticipated Effect Direction or Trend	Monitored Indicators <sup>4</sup>	Source	
Regional and Community Services (Protective Services)	Change in demand for protective services as a result of Mine-related transient workforce or in-migration	Construction	↑	<ul style="list-style-type: none"> <li>BC policing jurisdiction crime trends, per community:               <ul style="list-style-type: none"> <li>– Number of criminal code offences, per community</li> <li>– Total crime rate, per community</li> <li>– Number of violent offences, per community</li> </ul> </li> <li>Number of engagements and meetings related to closure planning per community and/or CLC</li> </ul>	<ul style="list-style-type: none"> <li>BC Ministry of Public Safety and Solicitor General Policing and Security Branch</li> </ul>	
		Operation	↑			
		Closure	↔			
	Mine-related traffic and worksite incidents change demand for protective services	Construction	↑	<ul style="list-style-type: none"> <li>Police-Reported Crash Data (TAS)</li> <li>Number and type of health and safety incidents on site</li> <li>Number of times emergency services were accessed by the Mine, per community</li> <li>Number of engagements and meetings with emergency services providers and NH regarding the Mine</li> </ul>		<ul style="list-style-type: none"> <li>BW Gold</li> <li>Contractors</li> <li>ICBC</li> </ul>
		Operation	↑			
		Closure	↔			
Regional and Community Services (Social Services)	Change in demand for social services due to Mine workforce and their families	Construction	↔	<ul style="list-style-type: none"> <li>Number of employees and family members that use counselling services at the Mine (EAP) (disaggregated by gender and other indicators of diversity or vulnerability)</li> <li>Statistics on the use of social services, per community and per service</li> <li>Number of engagements and meetings related to closure planning per community and/or CLC</li> </ul>	<ul style="list-style-type: none"> <li>BW Gold</li> <li>CLC Information Request Form</li> </ul>	
		Operation	↑			
		Closure	↔			
Family and Community Well-being	Mine-related employment reduces economic hardship of families in local communities	Construction	↓	<ul style="list-style-type: none"> <li>Mine employment per community (disaggregated by gender and other indicators of diversity or vulnerability)</li> <li>Total and average income paid to Mine employees/contractors (disaggregated by gender and other indicators of diversity or vulnerability)</li> <li>Average and median income<sup>6</sup></li> </ul>	<ul style="list-style-type: none"> <li>BW Gold</li> <li>BC Data Catalogue</li> <li>Statistics Canada</li> </ul>	
		Operation	↓			
		Changes to family and community well-being for employees from local communities as a result of poor income spending decisions	Construction			↓
	Operation	↓				

<sup>6</sup> Average income for communities anticipated to be affected by the Mine (i.e., Vanderhoof, Prince George, Fraser Lake, Burns Lake, Fort St. James, and Quesnel, and the Indigenous communities of UFN, LDN, StFN, SFN, NWFN, and NFN).

Category	Monitored Effect	Phase(s)	Anticipated Effect Direction or Trend	Monitored Indicators <sup>4</sup>	Source
Family and Community Well-being (cont'd)	Changes to inequality of employment and income as a result of Mine employment and training	Construction	NA	<ul style="list-style-type: none"> <li>Total and average income paid to Mine employees/contractors (disaggregated by gender and other indicators of diversity or vulnerability)</li> <li>Average and median income</li> </ul>	<ul style="list-style-type: none"> <li>BW Gold</li> <li>BC Data Catalogue</li> <li>Statistics Canada</li> </ul>
		Operation	NA		
	Change in family health and wellbeing (e.g., sense of security) due to Mine-related transient population engaging in socially disruptive or illegal activities	Construction	↓	<ul style="list-style-type: none"> <li>BC policing jurisdiction crime trends, per community</li> <li>Number of drug offences</li> <li>Number of vehicle theft offences, per community</li> <li>Number of property offences, per community</li> <li>Community Well-being (CWB) index</li> <li>Feedback and comments, and discussion by CLC members pertaining to mental health changes in primary communities</li> </ul>	<ul style="list-style-type: none"> <li>BC Ministry of Public Safety and Solicitor General Policing and Security Branch</li> <li>Government of Canada's CWB index</li> <li>BW Gold</li> </ul>
		Operation	↓		
Change in family relationships of Mine employees in local communities due to work rotation/schedule	Construction	↓	<ul style="list-style-type: none"> <li>Number of employees and family members that use counselling services at the Mine (EAP) (disaggregated by gender and other indicators of diversity or vulnerability)</li> <li>Statistics on most accessed EAP services</li> <li>Number of employees that resign due to family reasons (disaggregated by gender and other indicators of diversity or vulnerability)</li> <li>Mine turnover rates (disaggregated by gender and other indicators of diversity or vulnerability)</li> </ul>	<ul style="list-style-type: none"> <li>BW Gold</li> </ul>	
	Operation	↓			
Change in employment and income	Closure	↓	<ul style="list-style-type: none"> <li>Number of jobs and FTEs for Mine employees/contractors (disaggregated by gender, Aboriginal membership, and other indicators of diversity or vulnerability)</li> <li>Total and average income paid to Mine employees/contractors (disaggregated by gender and other indicators of diversity or vulnerability)</li> <li>Number of engagements and meetings related to closure planning</li> </ul>	<ul style="list-style-type: none"> <li>BW Gold</li> </ul>	

Each category—population and demographics, regional and community services (including educational, health, protective and social services), and family and community well-being—is divided into a prediction section that states the relevant Application/EIS prediction, data section that provides historical and most recent data for the relevant indicators, and interpretation section that provides interpretation of the presented data against the prediction. Where data for indicators were not available or incomplete, this is noted under the relevant category and is considered in interpretation where applicable.

Where possible and appropriate, interpretation identifies potential or probable links between changes or impacts to a community and data related to Mine activities to determine the potential for a causal relationship. Available data is used as best possible to understand if changes experienced by communities are caused by the early works activities of the Mine or are arising due to contextual socio-economic conditions. BW Gold is committed to objective identification, assessment, and monitoring of potential effects of the Mine on communities. Relevant industry averages and comparative analysis are applied where available and appropriate to cross-analyse Mine impacts with the impacts of similar developments to understand how the Mine fares compared to other projects or industry standards/averages.

## 2.3 Information Sources

Data and information sources are listed in Table 2.2-1 and include BW Gold, Mine contractors, Statistics Canada, BC Data Catalogue, Northern Health (NH)<sup>7</sup>, and other public data sources. Mine-specific data is largely quantitative, however, qualitative descriptions of conditions during Early Works, information received from the CLC and other stakeholders and organizations via Information Request Forms (IRF)<sup>8</sup>, and public feedback received via the feedback mechanism are included where relevant.

## 2.4 Data Limitations and Challenges

The following data limitations and challenges are relevant to this CEMMP-R.

### 2.4.1 CEMMP Baseline (CEMMP-B)

The CEMMP Baseline (CEMMP-B) Report (ERM, 2023), was prepared to update and describe the current socio-economic conditions in communities most likely to be affected by the construction, operation, and closure of the Mine. The CEMMP-B provides a foundation for effects monitoring in this CEMMP-R. Data limitations relevant CEMMP-B (e.g., data lags, frequency, and suppression) are similarly relevant for this CEMMP-R.

### 2.4.2 Census Data

Most recent Census of Population data are available for the 2016 and 2021 reporting years, with the next available reporting period of 2026. Census statistics are suppressed for communities where the

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<sup>7</sup> Anahim Lake is located in the Interior Health Region, and not the Northern Health Region. However, given the relatively small population of Anahim Lake compared to the Interior Health region, data for the entire Interior Health region is not collected in CEMMP monitoring efforts. Where available, data by Health Service Delivery Area or Local Health Area will be presented to represent the population of Anahim Lake.

<sup>8</sup> IRFs were provided annually to Community Liaison Committee (CLC) members, community leaders and other organizations such as the University of Northern British Columbia (UNBC). The IRFs included a series of questions about existing conditions in communities and community concerns, as well as data requests, and are used to supplement data and information collected from public sources.

population in private households is less than 250 or where the number of private households is less than 40, and this includes many First Nation reserves<sup>9</sup>. The majority of Census data are collected from the long-form questionnaire which is based on a sample population of 25%; these estimates are then randomly rounded to 0 or 5 and have the potential to misrepresent data and information for small communities.

### 2.4.3 Information Request Forms

BW Gold requested information from CLC members and other representatives of the primary communities. The IRFs were issued in September 2022, and entailed, generally, no more than 10 questions including quantitative and qualitative data or responses. The IRFs were collected to support the development of the CEMMP-B and, to avoid engagement fatigue, responses were considered to inform this report (CEMMP-R). However, additional IRFs were submitted to UNBC, College of New Caledonia (CNC), and NH and the information from those returned IRFs is included in this CEMMP-R as applicable. Data collection through the IRFs followed appropriate measures to protect the privacy of residents and businesses in local communities and included provisions to ensure representative collection of data as related to vulnerable groups.

During the initial IRFs collection period not all contacted CLC members, communities, and/or organization returned completed IRFs. Further, the feedback received on the IRF process from CLC members who returned IRFs revealed that contacted leaders or organizations did not always have access to the requested data or that some questions were outside of their scope or knowledge. This feedback will inform future data collection for future CEMMP-Rs and potential adjustments to future iterations of the CEMMP.

### 2.4.4 Mine-Specific Data

Mine-specific data, provided by BW Gold and contractors, for employment, training, income, service usage, and other indicators were in some instances incomplete or not available. This was partially because data collection systems and the associated teams were in the process of being established during Early Works. For this reason, for example, data on training for population sub-groups such as disabled and racialized individuals was not collected during Early Works. BW Gold is in the process of testing and standardizing this data collection effort to ensure that future iterations of the CEMMP-R consistently include data for monitored Mine-specific indicators.

### 2.4.5 Confidentiality and Health Data

Some health data, such as the number of times the public accesses health facilities/services and the statistics of diseases within communities must be requested via the *Freedom of Information and Protection of Privacy Act (FIPPA)*. NH also requires consultation with First Nation communities regarding the information and any concerns related to the release of health information. As such, some health-related data was not available in this reporting period as the timelines for data collection, review and consultation did not align with the reporting process. BW Gold will assess the relevance of available data and potentially make adjustments to future iterations of CEMMP indicators and reporting.

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<sup>9</sup> Census data for First Nations is presented by population on-reserve, and is not presented by population or Nation membership living within non-reserve Canadian communities. Census data for non-reserve communities disaggregated by Indigenous identity is not publicly available.

## 2.4.6 Other Limitations

Most data and information from public sources are available on an annual basis, however the CEMMP-R requires information at a monthly level. Additionally, data from public sources are often lagged and while an effort was made to report the most recent data, this was not possible for all monitored effects. Additionally, some data are not available at the community level due to collection challenges or privacy considerations. These limitations can affect the determination of correlation and causality between Mine activities and changes to the monitored indicators.

Data gaps and limitations are stated throughout this document when they impact data and information collection, or the interpretation of results. BW Gold will assess the need for and relevance of this data for future reporting and potentially make adjustments to future iterations of the CEMMP.

## 3.0 Population and Demographics

### 3.1 Predictions

#### Early works and Construction

The Application/EIS predicted that in-migration of workers during the construction phase would not result in any appreciable effect on the regional population (New Gold, 2015, pp. 7.2.2-9).

#### Operation

The Application/EIS predicted an increase in in-migration of workers and their dependents during the operations phase which would create minor changes in the regional population (New Gold, 2015, pp. 7.2.2-9).

#### Closure

The Application/EIS predicted an increase in out-migration of operations workers and their dependents during the closure phase, which would create minor changes in the regional population (New Gold, 2015, pp. 7.2.2-9).

#### Post-Closure

The Application/EIS predicted a negligible effect on population and demographics for the post-closure phase (New Gold, 2015, pp. 7.2.2-4).

### 3.2 Data

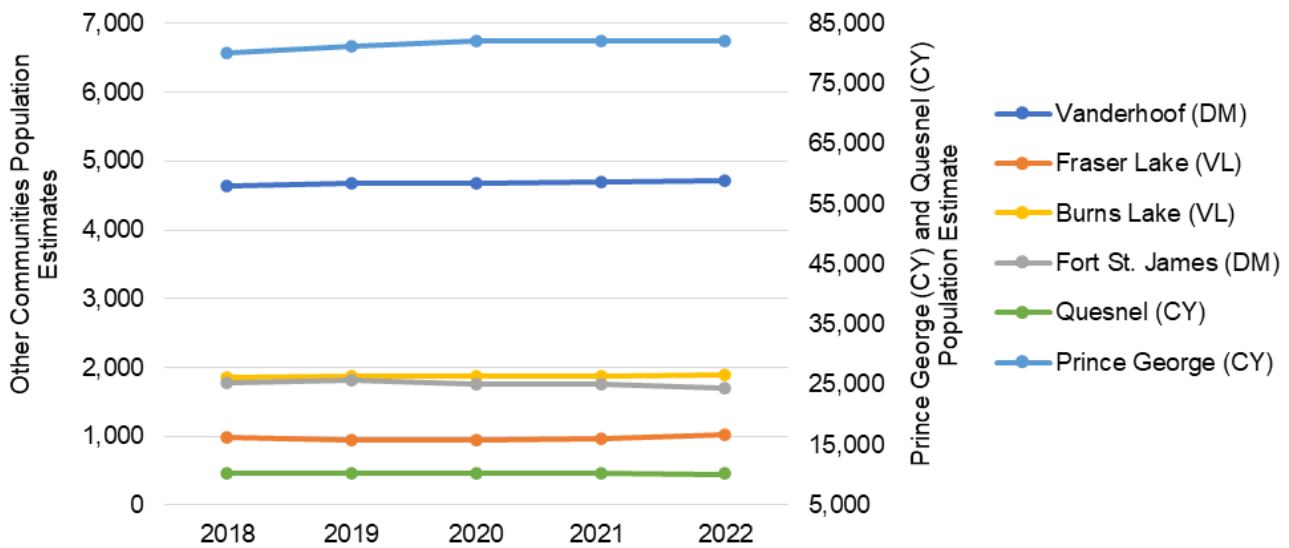
Changes in population and demographics due to the Mine workforce and their families, relevant to construction, operation and closure, are monitored through the following indicators:

- Population estimates in communities anticipated to experience Mine effects.
- Mine employment by community (BW Gold employees/contractors).
- Changes in community residency status of Mine contractors/BW Gold employees.
- Community-specific in/out-migration data.

#### 3.2.1 Change in Population due to Mine Workforce and Their Families

##### 3.2.1.1 Population Estimates in Communities

The most recent 2021 Census of Population informs that, from 2016 to 2021, population in the primary communities was increasing in Prince George and Fort St. James, remaining relatively stable in Vanderhoof and Quesnel, and decreasing in Fraser Lake and Anahim Lake. While Census data is released every five years, population estimates prepared by BC Stats can provide an approximation of population changes in recent years. Figure 3.2-1 shows an overall increase in population estimates for most non-reserve primary communities from 2021 to 2022, ranging from 0.1% of projected growth in the City of Prince George to 5.9% in the Village of Fraser Lake. Fort St. James and Quesnel had a projected population decrease over the same period of 2.9% and 0.3% respectively (Figure 3.2-1).



Source: Government of British Columbia, 2023

Notes:

CY = City, T = Town, VL = Village, DM = District Municipality.

All figures correspond to municipal boundaries as of July 1<sup>st</sup> of the year stated.

All figures are as of July 1<sup>st</sup> of the year stated.

**Figure 3.2-1: Population Estimates by non-Reserve Community (2018-2022)**

Recent population estimates for First Nations are available from the Crown-Indigenous and Northern Affairs Canada (CIRNAC) (Table 3.2-1). CIRNAC reports population estimates at a specific date<sup>10</sup> and does not provide historical population estimates. As such, estimates are reported for the most recent month which makes it impossible to retrieve data for a specific period (i.e., it is not possible to extract the data limited to the Early Works period).

Table 3.2-1 presents estimates of the registered population for First Nations for October and December 2022. This information is used to identify any change in population during the first months of Early Works. Total registered population remained the same or increased slightly for all First Nation primary communities from October to December 2022, with increases ranging from 0.2% for NFN to 0.8% for NWFN. All First Nations primary communities had increases in registered population living on their reserves, with most increases under 15.0%. The smallest increase was 3.3% for SFN, and the largest was 75.0% for LDN. While an explanation is not available to justify the 75.0% increase (from 28 to 49) in the LDN population, an increase in total registered population may be contributed to the net positive change in births and deaths during this period, resulting from additional registration of adults who were previously not registered, or members of the First Nations moving back to communities.

<sup>10</sup> The estimates are lagged one month, that is, if for example the site is accessed in December of 2023, the estimates are shown for the month of November 2023.

**Table 3.2-1: Registered On- and Off-Reserve Population by First Nation (October and December 2022)**

Nation	October 2022		December 2022		Change in Total Registered Population, Oct–Dec (%)	Change in Registered Population on Own Reserve, Oct–Dec (%)
	Total Registered Population	Registered Population on Own Reserve	Total Registered Population	Registered Population on Own Reserve		
LDN	232	28	232	49	0.0%	75.0%
NFN	426	114	427	129	0.2%	13.2%
SFN	995	331	998	342	0.3%	3.3%
NWFN	602	252	607	277	0.8%	9.9%
StFN	609	211	609	228	0.0%	8.1%
UFN	1,061	593	1,064	641	0.3%	8.1%
<b>Total</b>	<b>3,925</b>	<b>1,529</b>	<b>3,937</b>	<b>1,666</b>	<b>0.3%</b>	<b>19.6%</b>

Source: CIRNAC, 2023; Indigenous Services Canada (ISC)/CIRNAC’s Indian Register, 2022

Note: Population counts are reported for the last day of each month. December 2022 data was not publicly available and was obtained through a direct request to ISC. Population data for September 2022 was not publicly available.

### 3.2.1.2 Mine Employment by Community

Throughout this report, workers employed directly by BW Gold are referred to as “BW Gold employees”, while contractor workers are referred to as “contractor employees”. When referring to the total workforce of the Mine, including BW Gold and contractor employees, the terms “Mine workforce” or “Mine workers/employees” are used.

Table 3.2-2 informs that BW Gold had a total of 72 employees, with 47 or 65.3% of total hired from primary communities. The number of employees is not reported by community due to the small size of the Early Works workforce, and to protect the confidentiality of employees, particularly those from smaller communities and/or those representing diverse population subgroups.

**Table 3.2-2: Mine Employment by Community – BW Gold Employees Only**

Community	Number of BW Gold Employees (Percent of Total BW Gold Employees)
Non-Reserve Communities, including Vanderhoof, Fraser Lake, Burns Lake, Fort St. James, Prince George and Quesnel	31 (43.1%)
Indigenous Communities, including LDN, UFN, NWFN, SFN, StFN, and NFN	16 (22.2%)
<b>Total Primary Communities</b>	<b>47 (65.3%)</b>
Non-Primary Communities	25 (34.7%)
<b>Total Employees</b>	<b>72 (100.0%)</b>

Source: Blackwater Gold, 2023



During Early Works, BW Gold hired 11 contractors. BW Gold contractors hired a total of 272 employees, however community-specific breakdown for contractor employees was not available at the time of writing this report. Employment data for BW Gold employees disaggregated by gender, Indigeneity, and community is presented in Section 5.2.1.1.

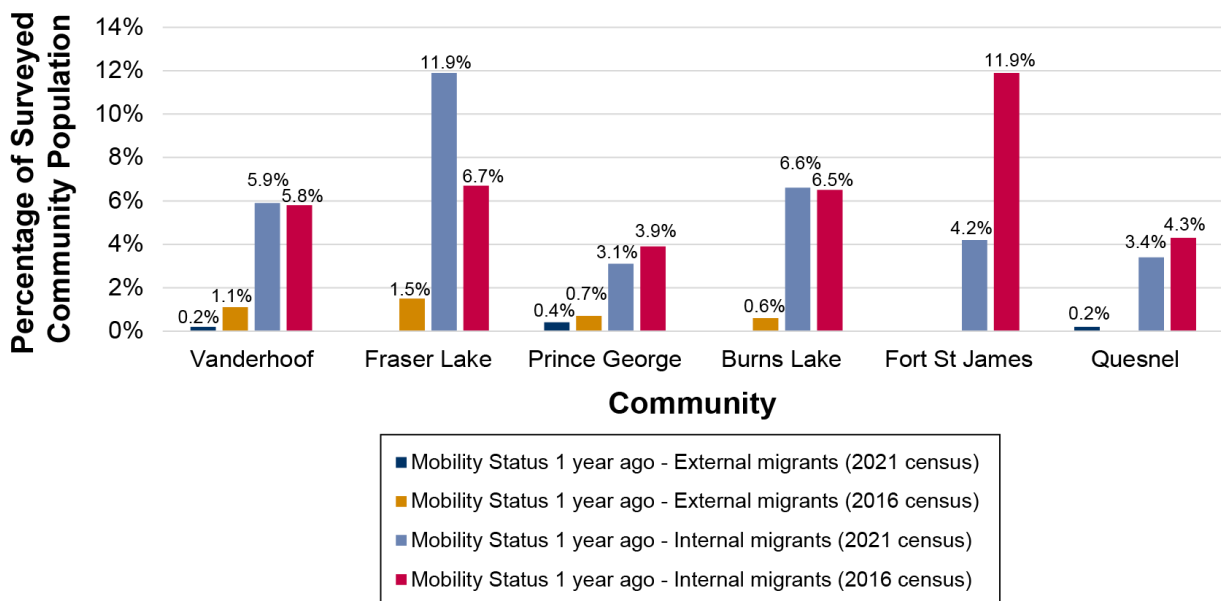
The total Mine employment for Early Works (BW Gold and contractors) was 344 employees.

### 3.2.1.3 Changes in Community Residency Status of Mine Employees and Contractors

Data on Mine employee relocation was available for the 2022 calendar year and was not disaggregated by month. One employee relocated to work at the Mine during this period (directly employed by BW Gold, as opposed to by a contractor), moving from Kelowna to Prince George.

### 3.2.1.4 Community-specific In- and Out-Migration

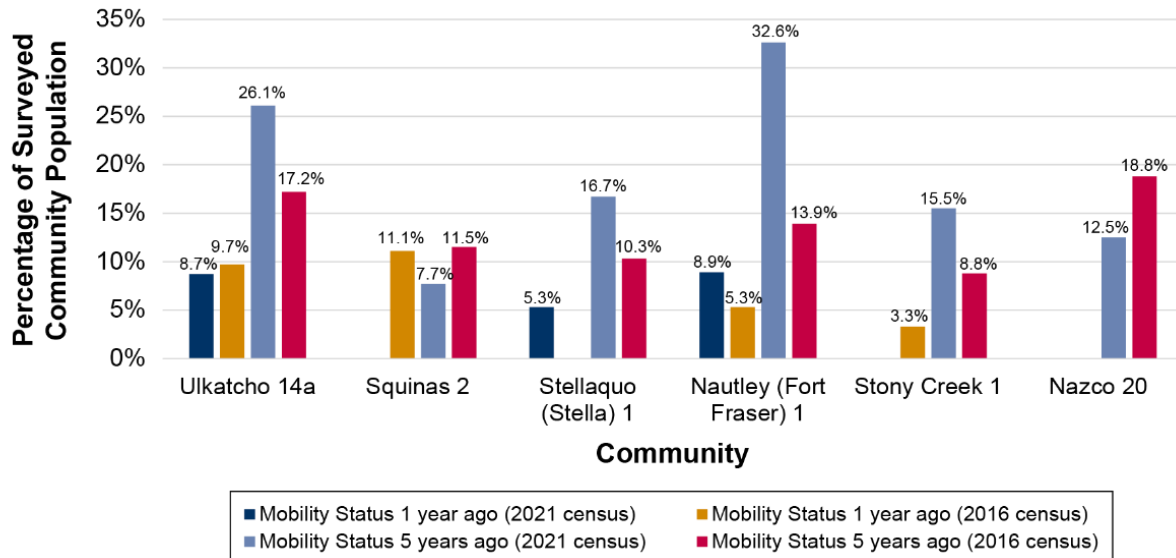
The most recent data on migration is available from the 2021 and 2016 Census of Population. Data for 2021 suggests that the majority of migrants to primary communities were internal migrants (i.e., from within Canada), and most of those migrants were intraprovincial (i.e., from within the province). Most external migrants who were not Canadian citizens emigrated from Asia. No external migrants to reserve communities were reported for 2016 or 2021. The 2016 Census of Population reported more internal and external migrants than the 2021 Census in most communities except for Vanderhoof, Fraser Lake, and Burns Lake (Figures 3.2-2, 3.2-3, and 3.2-4). Considering that the reference date to determine mobility/migration status for the 2021 Census of Population was during the first months of the COVID-19 pandemic (i.e., May 11, 2020), migration numbers were likely unusually influenced by the travel/mobility restrictions and considerations during the peak years of the pandemic.



Source: Statistics Canada, 2022

Notes: Based on 25% sample data. Mobility status one or five years ago refers to a person's mobility status in 2021 relative to their residence either one or five years ago (e.g., if they had moved in the last five years or in the last one at the time of survey). Percentages represent a percentage of each community's sampled population in 2021, which may not be the total population of each community. Therefore, mobility status counts and country of origin counts may be undercounts, and the percentages should be understood as approximations. Anahim Lake had no migrants recorded in this Census category. Data labels have been removed for points of 0.0% for readability.

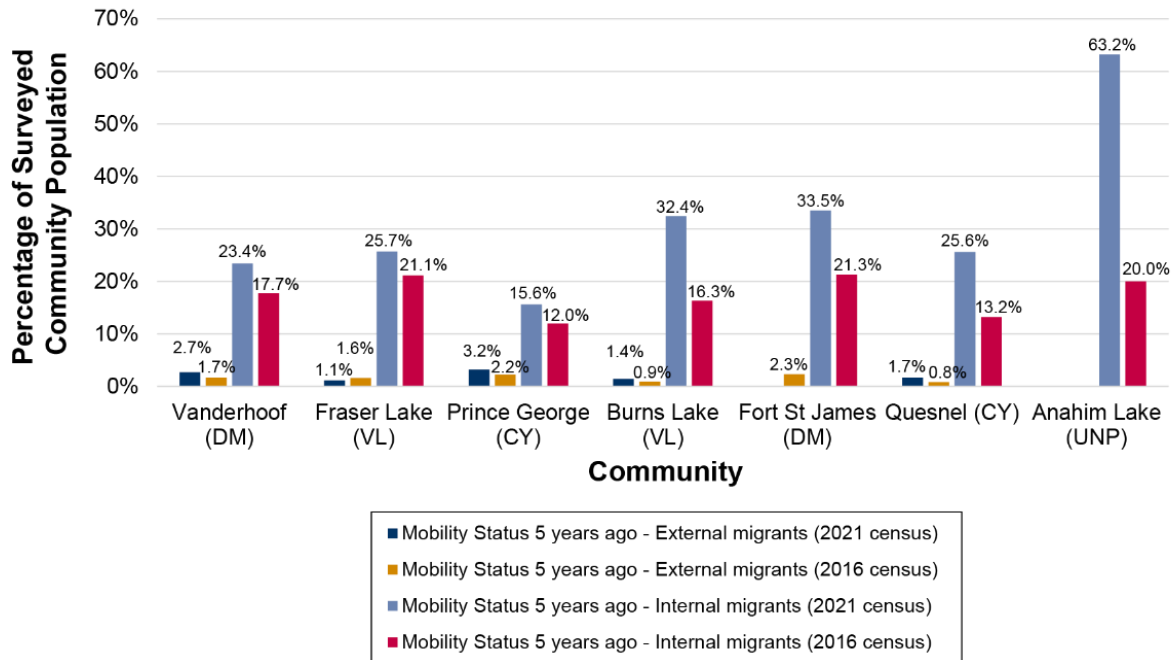
**Figure 3.2-2: Mobility Status One Year Prior to Census Survey by Migrant Type and Non-Reserve Community**



Source: Statistics Canada, 2022

Notes: Based on 25% sample data. Mobility status one or five years ago refers to a person's mobility status in 2021 relative to their residence either one or five years ago (e.g., if they had moved in the last five years or in the last one at the time of survey). Percentages represent a percentage of each community's sampled population in 2021, which may not be the total population of each community. Therefore, mobility status counts and country of origin counts may be undercounts, and the percentages should be understood as approximations. No external migrants were recorded in either census year for reserve communities. Data labels have been removed for points of 0.0% for readability.

Figure 3.2-3: Internal Migrant Status by Census Year and Reserve



Source: Statistics Canada, 2022

Notes: Based on 25% sample data. Mobility status one or five years ago refers to a person's mobility status in 2021 relative to their residence either one or five years ago (e.g., if they had moved in the last five years or in the last one at the time of survey). Percentages represent a percentage of each community's sampled population in 2021, which may not be the total population of each community. Therefore, mobility status counts and country of origin counts may be undercounts, and the percentages should be understood as approximations. Data labels have been removed for points of 0.0% for readability.

Figure 3.2-4: Mobility Status Five Years Prior to Census Survey by Migrant Type and Non-Reserve-Community

Data for this indicator will be reported in subsequent reports following the release of the 2026 Census of Population data, as similar data is not available in other sources.

Out-migration data for primary communities was not found in public sources.

### 3.3 Interpretation

Population estimates for the non-reserve primary communities were stable in 2022 in most communities, with the exception of the Village of Fraser Lake that had a projected population growth of 5.9% from 2021 to 2022. Further, while information is not available regarding community migration during Early Works, data indicates that one employee relocated to a primary community (from Kelowna to Prince George) in 2022.

First Nations primary communities had increases in registered population living on their reserves from October to December 2022, with potential growth attributed to natural population changes, additional registrations, or members moving back to communities. Adult registration with First Nations communities may happen for a variety of internal and external reasons, including reconnection to culture and changes in legislation.

Finally, BW Gold and contractors hired a total of 344 employees.

In consideration of the incomplete information, it cannot be assessed if Early Works at the Mine resulted in changes to population or demographics in primary communities and the prediction of the potential change in population or demographics is indefinite for Early Works.

### 3.4 Summary of Mitigation Measures

Several measures have been undertaken to reduce the potential increase of Mine-induced in-migration of construction workers to primary communities. Measures outlined in the CEMMP and undertaken by BW Gold during Early Works to mitigate population and demographics changes include:

- Focusing recruitment and hiring efforts on communities in the LSA and RSA.
- Providing a self-contained camp to accommodate Mine workers.

Refer to Appendix A for a detailed description of mitigation measures.

## 4.0 Regional and Community Services

### 4.1 Educational Services

#### 4.1.1 Predictions

##### Early Works and Construction

The Application/EIS predicted that in-migration of Mine workforce could affect demand for education services. However, no appreciable increase in demand for education services was predicted for construction, since migration during this phase was expected to be minimal (New Gold, 2015, pp. 7.2.4-12).

##### Operation

The Application/EIS predicted that in-migration of Mine workforce could create additional demand for education services. However, demand for education services was predicted to remain within existing capacity (New Gold, 2015, pp. 7.2.4-12).

The Application/EIS predicted that Mine hiring requirements could increase demand for training and apprenticeship programs. This potential increase in demand was predicted to increase supply for educational services and enhance qualifications of the regional workforce (New Gold, 2015, pp. 7.2.4-12).

##### Closure

The Application/EIS predicted that out-migration of Mine workers could slightly reduce demands for education services (New Gold, 2015, pp. 7.2.4-13).

##### Post-Closure

The Application/EIS predicted a negligible effect on educational services for the post-closure phase (New Gold, 2015, pp. 7.2.4-13).

#### 4.1.2 Data

Changes in educational services due to Mine workforce and their families, relevant to construction, operation and closure, are monitored through the following indicators:

- Class size for elementary/secondary school per community.
- SD91 enrolment numbers (also SD28, SD57 and SD27).
- Enrolment at post-secondary institutions and headcount totals, per community.
- Change in demand for educational services as experienced by School Districts, and CNC (both CLC members) and UNBC.
- Number of Mine-related delivery of training (number, type of training, and participation by community; BW Gold and Contractors).
- BW Gold participation in job fairs and employment-related events.
- Number of engagements and meetings related to closure planning, per community and/or with CLC.

Change in demand for training programs and apprenticeship programs due to the Mine will be further assessed through the following indicators. These indicators will be collected once the Mine commences operations as per the Project Application/EIS impact predictions and the CEMMP monitoring program.

Indicators relevant to the operation phase include:

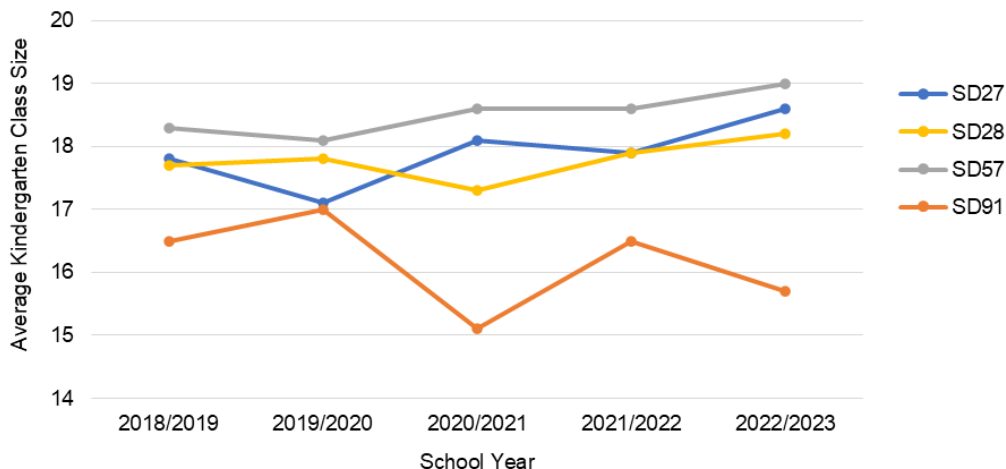
- Number of Mine apprentices – BW Gold and contractors (including disaggregated data by gender and other indicators of diversity).
- Description of collaboration with education facilities, per community.
- Total hours and type of BW Gold on-the-job training/ job-specific training (disaggregated by gender and other indicators of diversity).
- Number and dollar amount of scholarships (disaggregated by gender of recipient and other indicators of diversity).
- Number of jobs and FTEs for BW Gold employees and contractors (disaggregated by gender, Aboriginal membership, and other indicators of diversity or vulnerability); total hours and percentage of total hours worked by each group.

#### 4.1.2.1 Change in Demand for Educational Services due to Mine Workforce and Their Families

##### Class Size for Elementary and Secondary Schools per Community

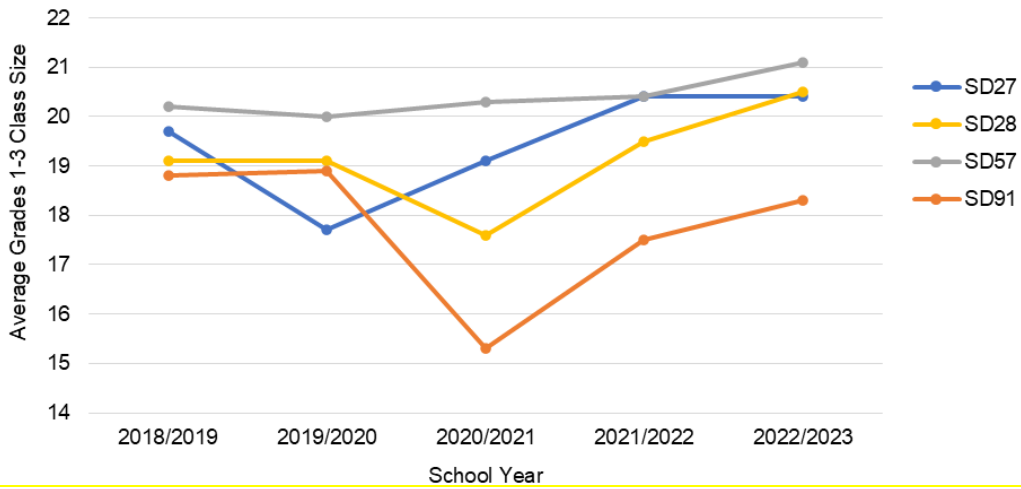
Figures 4.1-1, 4.1-2, 4.1-3, and 4.1-4 present average class sizes for elementary and secondary schools by school district. School districts that are being monitored as part of the CEMMP include SD91 Nechako Lakes, SD57 Prince George, SD28 Quesnel, and SD27 Cariboo-Chilcotin. Data for average class size is released per academic year, which commences on July 1 and ends the following June 30. Early Works occurred within the 2022/2023 school year, which began on July 1, 2022, and ended on June 30, 2023.

In general, average class sizes increased across primary communities from the 2021/2022 school year to the 2022/2023 school year. The few exceptions include grades 1-3 in SD27 (which remained the same between the two years), and Kindergarten in SD91 and grades 4-7 in SD91 (which decreased). The increases in SD27 are consistent with the increase in average class sizes from the 2020/2021 school year to the 2021/2022 school year. Increasing class sizes would be also consistent with the projected growth in population.



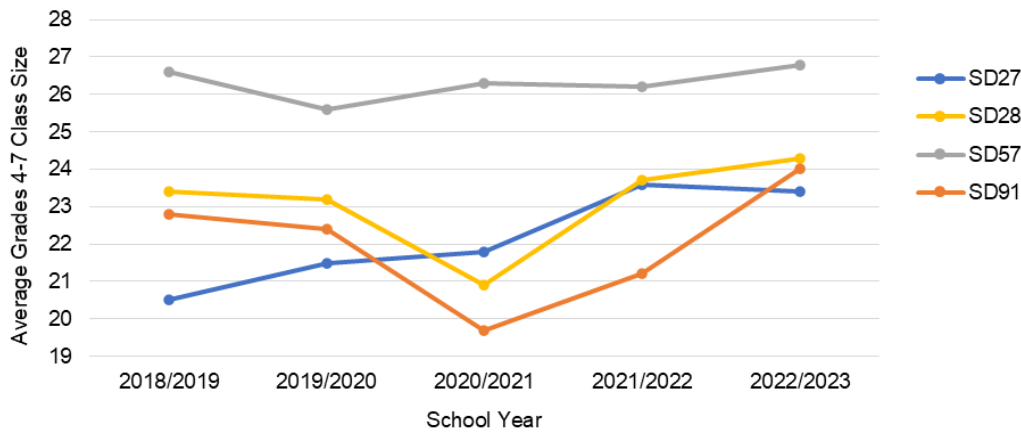
Source: Government of British Columbia (n.d.)

**Figure 4.1-1: Average Kindergarten Class Size by School District (2018-2023)**



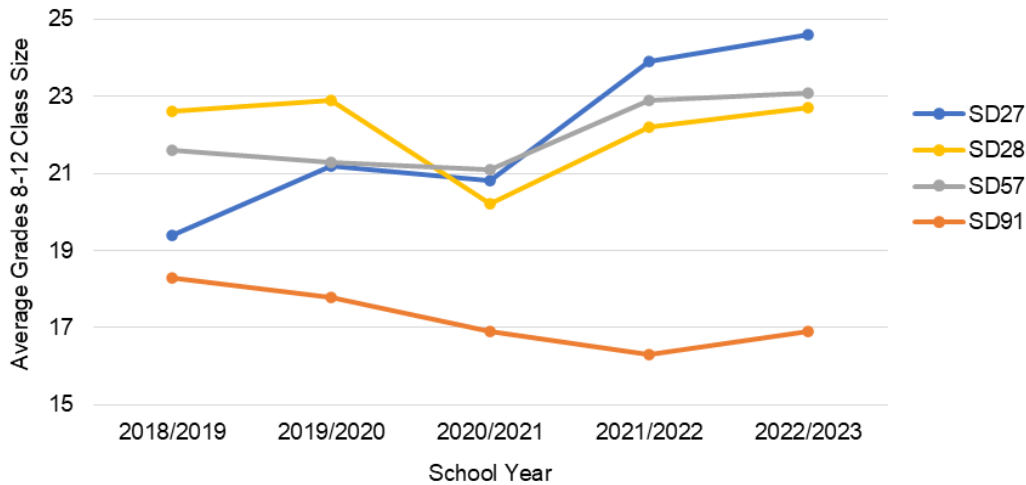
Source: Government of British Columbia (n.d.)

**Figure 4.1-2: Average Grades 1-3 Class Size by School District (2018-2023)**



Source: Government of British Columbia (n.d.)

**Figure 4.1-3: Average Grades 4-7 Class Size by School District (2018-2023)**

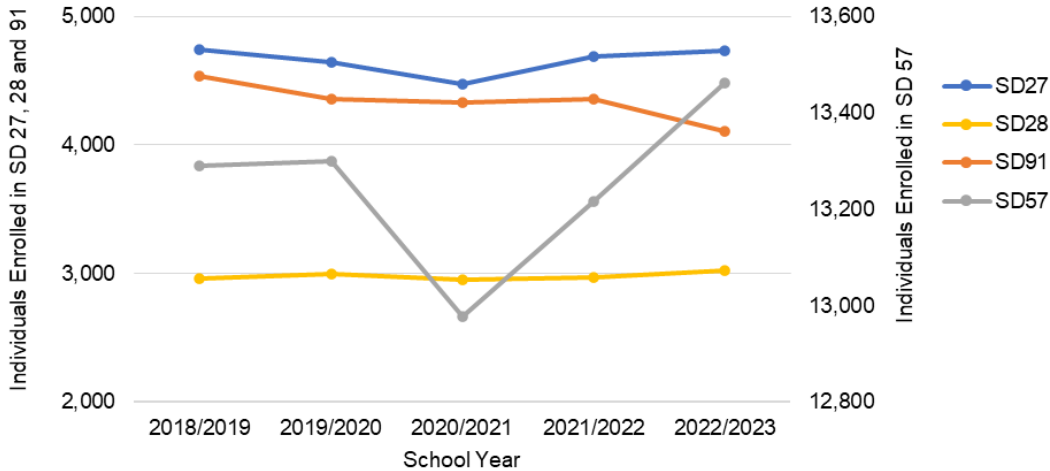


Source: Government of British Columbia (n.d.)

**Figure 4.1-4: Average Grades 8-12 Class Size by School District (2018-2023)**

### School District Enrolment Numbers

Figure 4.1-5 presents enrolment numbers for SD91, SD57, SD28, and SD27. Enrolment for all SDs increased from the 2021/2022 school year to the 2022/2023 school year, except for SD91, consistent with the slight decreases in class size. The SD91 decreased by 5.7% over this five-year period, while the increases for other school districts ranged from 1.0% (SD27) to 1.9% (SD57).

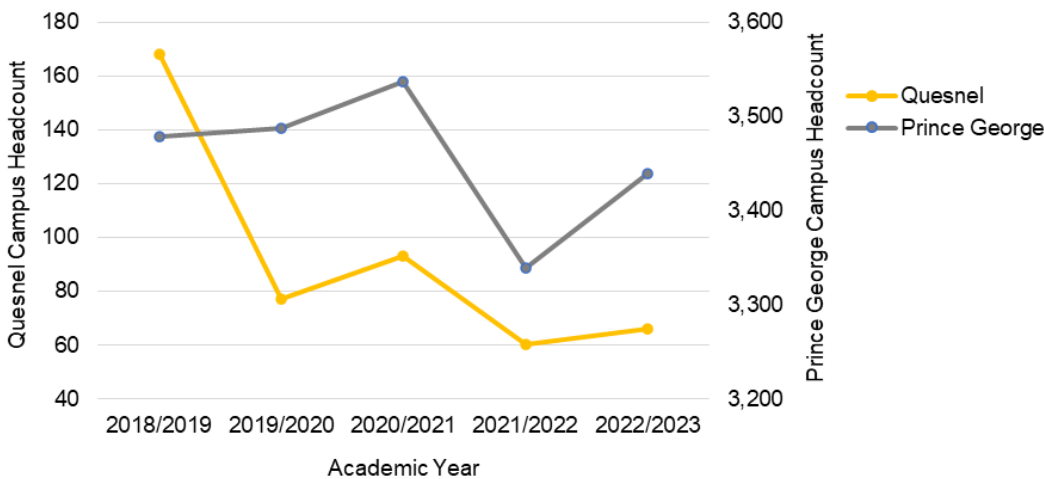


Source: Government of British Columbia (n.d.)

**Figure 4.1-5: School District Enrolment Numbers (2018-2023)**

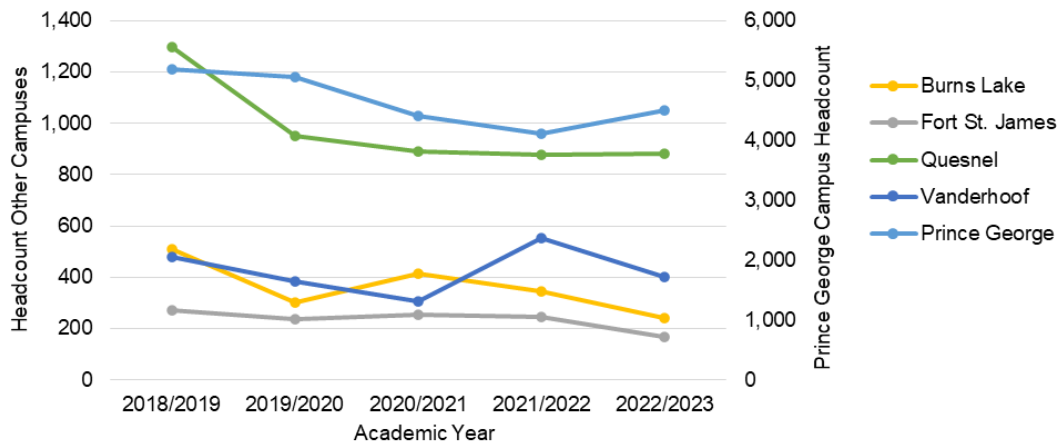
### Enrolment at Post-Secondary Institutions

Enrolment at post-secondary institutions and headcount totals, per community and campus, is monitored for UNBC and CNC. Headcount by campus for UNBC and CNC are presented in Figures 4.1-6 and 4.1-7, respectively. The CNC academic year begins on August 1 and ends on July 31; the UNBC academic year extends from September 1 to August 31. Early Works occurred within the 2022/2023 school year. Student headcount by primary community for CNC is presented in Figure 4.1-8; similar data was not available for UNBC.



Source: UNBC, 2023

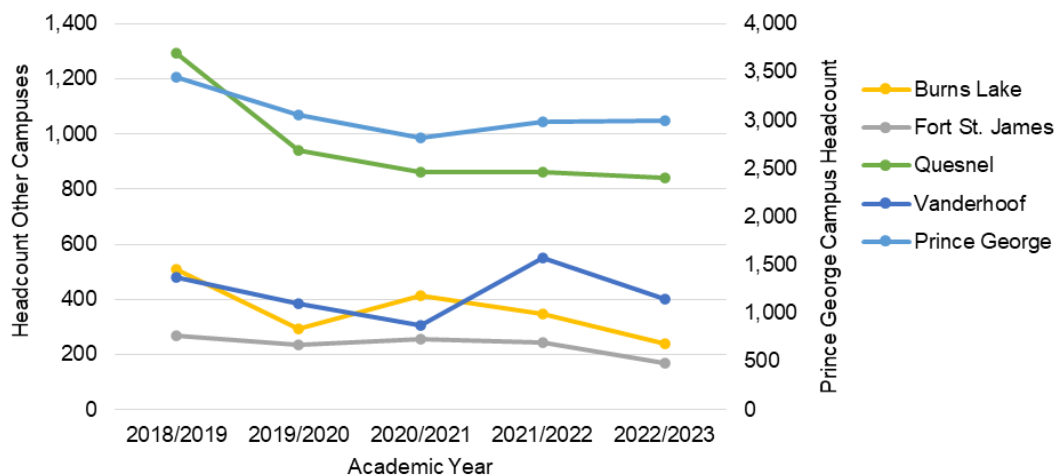
**Figure 4.1-6: UNBC Student Headcount by Campus (2018-2023)**



Source: CNC, 2023a

Notes: CNC Academic Year extends from August 1 to July 31. Students are present in each Academic Year during which they have a stable registration. Campus is determined by location of sections in which a student is registered. Students may be present in multiple campuses during a period. Registrations represent individual students' participation in a primary course section. Supplementary sections, such as labs, are not included. Stable registrations only: the student must be registered for at least 15% of the section's length. Headcounts and Registrations are distinct counts; students present in multiple subtotals will be represented once in each total. CE/Skills students and registrations are included.

**Figure 4.1-7: CNC Student Headcount by Campus (2018-2023)**



Source: CNC, 2023a

Notes: CNC Academic Year extends from August 1 to July 31. Students are present in each Academic Year during which they have a stable registration. Campus is determined by location of sections in which a student is registered. Students may be present in multiple campuses during a period. Registrations represent individual students' participation in a primary course section. Supplementary sections, such as labs, are not included. Stable registrations only: the student must be registered for at least 15% of the section's length. Headcounts and Registrations are distinct counts; students present in multiple subtotals will be represented once in each total. Continuing Education/Skills students and registrations are included. Domestic students only.

**Figure 4.1-8: CNC Student Headcount by Primary Community (2018-2023)**

UNBC saw an increase in headcount for both the Prince George and Quesnel campuses from the 2021/2022 school year to the 2022/2023 school year, with the CNC Prince George and Quesnel campuses also experiencing slight increases in headcount for this period. The Burns Lake, Fort St. James, and Vanderhoof CNC campuses all decreased in headcount over this period. Trends in enrolment



by primary community for CNC campuses followed trends in headcounts, with a slight increase in students from Prince George, and decreases in students from all other primary communities.

### Change in Demand for Educational Services

Data regarding changes in demand for educational services by school district was not collected for this CEMMP-R, and enrolment and class size is being used as proxy indicators. No information regarding this indicator was available from CNC or UNBC at the time of this report preparation. A representative of CNC advised that information and analysis regarding evolving educational needs are found in CNC’s Institutional Accountability Plans and Reports(CNC, 2023b), however, 2021/21 and 2022/23 Institutional Accountability Plans and Reports could be used in future reports. BW Gold will assess the relevance of available data and potentially make adjustments to future iterations of CEMMP indicators and reporting.

### Number of Mine-related Delivery of Training

Table 4.1-1 shows the total hours of training delivered to Mine workforce/employees (including BW Gold and contractor employees) during Early Works, disaggregated by types of training, gender and Indigenous identity. Other than female and Indigenous employees, less than one percent of the workforce has identified with a population sub-group (e.g., people with disabilities or racialized individuals). Early Works related data on training for population sub-groups focused on gender and Indigeneity, and no training information is available for other population sub-groups, such as people with disabilities and racialized individuals. Data has been aggregated into the “total Mine employees” category to protect workers privacy. No data was available for training hours disaggregated by home community of worker.

**Table 4.1-1: Total Hours of Training Delivered to BW Gold Employees and Contractors**

	Health and Safety (Hours)	Occupational Awareness (Hours)	Job-specific Training (Hours)	All Trainings (Hours)
<b>Total Mine Employees</b>	<b>480</b>	<b>12,720</b>	<b>1,412</b>	<b>14,612</b>
Male Mine Employees	336	8,904	1,200	10,440
Female Mine Employees	144	3,816	212	4,172
Non-Indigenous Mine Employees	336	8,904	212	9,452
Indigenous Mine Employees	144	3,816	1,200	5,160

Source: Blackwater Gold, 2023

The majority of on-the-job training (12,720 hours, 87% of total training hours) focused on occupational awareness. Job-specific training was the second most attended training by hours (1,412 hours, 10% of total training hours), followed by health and safety training (480 hours, 3% of total training hours). Both female and Indigenous employees and contractors participated in 144 hours of health and safety training and 3,816 hours of occupational awareness training. Job-specific training had lower female participation – 212 hours of job-specific training were delivered to female employees, while 1,200 hours of job-specific training were delivered to Indigenous employees.

BW Gold offered 17 on-the-job training courses related to health and safety and four related to occupational awareness during Early Works. During Early Works, equipment orientation training was provided for light vehicle use, and no other equipment training was needed as experienced equipment operators were provided through a contractor (Nechako Plateau Construction). Inexperienced employees of BW Gold were paired with suitable mentors from the contractor to learn how to operate equipment (heavy and light equipment training, and prestart inspections; this informal training was not included in

total hours of training presented in Table 4.1-1). During Early Works, BW Gold's internal training team was being established so that equipment orientation training could be implemented by BW Gold employees following Early Works. New Mine employees received one-on-one job-specific training with senior management, followed by direct supervision and support from a "buddy" as part of the Mine's "buddy system". Job-specific training included toolbox meetings, field level risk assessments, spotter training, correct use of personal protective equipment (PPE), and other applicable topics to the employees' role and tasks.

Health and safety training courses included certified courses, as well as non-certified courses. Certified courses included Transportation of Dangerous Goods, Occupational First Aid (OFA) Level 3, and Emergency Rescue Training. Non-certified trainings included incident reporting, field level risk assessment, fatigue management, area inspection, vehicle inspections, PPE selection and use, refueling procedure, first aid, spill response, change management, critical standards, bear spray use, spotter training, and basic maintenance works around the mine under supervision. Additionally, members of the Joint Occupational Health and Safety Committee (JOHS) are required to complete the JOHS committee training offered virtually by WorkSafe BC. JOHS members are also required to complete other internal training related to members' roles on the committee, covering topics such as inspections, investigations, right to refusal, and others. Occupational awareness trainings included Hazards in the Workplace, Respectful Workplace Policy, Workplace Hazardous Materials Information System (WHMIS), and emergency procedures. Occupational awareness trainings covered topics such as working alone, bear awareness (a separate course from bear spray use), journey management, fit for duty, fatigue management, incident and loss prevention, traffic management, hazardous energy control (including energy isolation and tagging), and other topics. Respectful Workplace Training is mandatory and repeated annually or as-needed (in response to events) to promote a harassment-free workplace. Respectful Workplace Training can be requested at any time.

### **BW Gold Participation in Job Fairs and Employment-related Events**

During Early Works, BW Gold participated in 55 employment-related events, including 45 community events (e.g., community visits, annual general meetings), nine (9) career fairs, and one (1) conference. The objectives of such events were to promote careers with the Mine, provide updates on the Mine and collect resumes of potential employees. Participation in these events promotes awareness about the Mine and career opportunities, both current and future, and has directly resulted in community members gaining employment with the Mine.

### **Number of Engagement and Meetings related to Closure Planning**

No meetings related to closure planning occurred during Early Works.

#### **4.1.2.2 Change in Demand for Training Programs and Apprenticeship Programs due to Mine Hiring**

Indicators of this effect will be monitored and reported during operations.

#### **4.1.3 Interpretation**

Early Works commenced after the registration for the academic year and after the registration for post-secondary programs. Given the existing short-term trend of decreasing enrolment in school districts serving the primary communities, the Mine workforce of 344 employees, and with most workers being employed from primary communities (see Section 3.2.2), it is unlikely that the Mine has contributed to an increase in average class sizes or resulted in changes to the overall school enrolment. Further, as Early

Works activities relied on trades-based employment, it is unlikely that increases in headcount and enrolment in post-secondary education were related to Early Works.

The Mine provided a total of 14,612 hours of training for the Mine workforce, resulting in an average training per worker of 42 hours. This commitment to on-the-job training, including job shadowing, supports skills development on-site.

#### 4.1.4 Summary of Mitigation Measures

BW Gold supports programs and initiatives intended to improve educational skills and attainment across primary communities. BW Gold is also invested in training and career development for Mine employees and contractors. Efforts (implemented during early works and planned) to improve education and avoid overburdening schools include:

- Focus recruitment and hiring efforts on communities in the LSA and RSA.
- Provide self-contained camp to accommodate workers.
- Work with training institutions to support or provide training programs.
- Support training of students from diverse groups.
- Provide scholarships to encourage high school graduation.
- Work with local service providers and communities to develop a Mine Closure Plan that identifies strategies and actions to help minimize the potential adverse effects of closing the Mine.

Refer to Appendix A for a detailed description of mitigation measures.

## 4.2 Health Services

### 4.2.1 Predictions

#### **Early Works and Construction**

The following predictions were made in the Application/EIS:

- Mine-related traffic or worksite incidents and accidents could increase demand for health services during construction. Potential increases were predicted to be within services' current capacity (New Gold, 2015, pp. 7.2.4-13, 7.2.4-14).
- In-migration of Mine workforce could affect demand for health services. However, no substantial increase in demand for health services was predicted for construction, since migration during this phase was expected to be minimal (New Gold, 2015, pp. 7.2.4-13).

#### **Operation**

The following predictions were made in the Application/EIS:

- Mine-related traffic or worksite incidents and accidents could increase demand for health services during operations. Potential increases were predicted to be within services' current capacity (New Gold, 2015, pp. 7.2.4-13, 7.2.4-14).
- In-migration of Mine workforce could affect demand for health services. However, potential increases in demand were predicted to be within services' current capacity (New Gold, 2015, pp. 7.2.4-13).

## Closure

The Application/EIS predicted that out-migration could reduce demand for health services (New Gold, 2015, pp. 7.2.4-14).

## Post-Closure

The Application/EIS predicted a negligible effect on health services for the post-closure phase (New Gold, 2015, pp. 7.2.4-14).

### 4.2.2 Data

Changes in demand for health services due to Mine workforce and their families, during Mine construction, operation and closure, are monitored through the following indicators:

- Capacity of emergency services in primary communities (e.g., ICU beds, ambulance capacity).
- Number of times public health care services were accessed per community, total and by key service category.
- Number of times health care emergency services were accessed by the Mine, per provider/per community.
- Statistics on communicable disease rates by community or aggregate (e.g., instances of HIV/AIDS, hepatitis C, gonorrhea, chlamydia, and syphilis).
- Number of non-local Mine workers that are being referred to local health facilities (for 1 – urgent/non-urgent, and 2 – occupational/non-occupational demands).
- Aggregated data on type and number of medical visits to on-site medical facilities.
- Information on the level and types of health services that are available on-site.
- Number of diagnostic and treatment centre and/or ER visits by non-residents, to understand cumulative effects of shadow populations.
- Number of Mine workers referred to the local healthcare system, by key service category/diagnostic type.
- Level of use of EAP (disaggregated by gender or other indicators of diversity).
- Site-management of injuries and accidents.
- Number of engagements and meetings related to closure planning.

Mine-related traffic or worksite incidents resulting in changes in the demand for health services, during Mine construction, operation and closure, are monitored through the following indicators:

- Motor vehicle accident data.
- Number of times health care emergency services were accessed by the Mine.
- Police-reported crash (TAS) data.
- ICBC-reported crash data.
- Number of crew chats or rollout of health-related policies.

Data regarding the level of use of the EAP is presented in Section 4.2.2.1, and this data is considered in interpretation of changes in the demand for community health services (Section 4.4.2.1).

#### **4.2.2.1 Change in Demand for Health Services Due to Mine Workforce and Their Families**

##### **Capacity of Emergency Services in Primary Communities**

A review of secondary sources found that services remain at or above capacity as described in the CEMMP-B, with all trends in line with conditions prior to Early Works.

No changes to ambulance services offered in primary communities were found in public sources during Early Works. Details regarding ambulance staffing in primary communities were limited (e.g., reported at annual frequency, reported on undated websites, etc.). Demand for ambulance and emergency hospital services remained high, at or above capacity of local services, in primary communities and across rural BC throughout Early Works (Kulkarni, 2023). Public data did not identify any significant changes to capacity of Lakes District Hospital and Health Centre (Burns Lake), Stuart Lake Hospital (Fort St. James), GR Baker Memorial Hospital (Quesnel), and Fraser Lake Community Health Centre. In November 2022, there was a 36-hour disruption to maternity services at St. John Hospital (Vanderhoof) due to staffing shortages (Foster, 2022). Starting in October-November 2022, University Hospital of Northern BC (Prince George) had a temporary emergency operation centre (EOC) reactivated by the province as part of a broader effort to proactively support a variety of hospitals during respiratory illness season.

Staffing of fire department services in primary communities remained relatively stable throughout early works, with slight declines in numbers of firefighters over the 2022 calendar year (District of Fort St. James, 2023; District of Vanderhoof, 2023). In October 2022, a new Fire Operations Communications Centre and Dispatch opened in Prince George, housing up to fourteen staff to coordinate fire and rescue services (City of Prince George, 2023). No notable changes to fire department capacity were found for Quesnel or reserve communities in public sources, and no indications of overburdening of fire department services were found for any primary communities.

##### **Number of Times Public Health Care Services Were Accessed per Community**

Data regarding the number of times public health care services were accessed by the public was requested from NH. This information requires processing via the FIPPA process and consultation with Indigenous communities (Section 2.4). The data and data collection process will undergo continuous improvement to support future reporting periods. For example, BW Gold met with NH in February 2024 to discuss data and information, and for future CEMMP-Rs, BW Gold and NH will continue to collaborate on the data and monitoring process and assess potential changes for future iterations of the CEMMP.

##### **Number of Times Health Care Emergency Services Were Accessed by the Mine**

Local health care emergency services were accessed by the Mine 22 times during Early Works (Figure 4.2-1). All 22 cases entailed ER visits at the St. John Hospital in Vanderhoof. Most cases were related to smoke inhalation, followed by general injuries, and seizures or expected seizures.

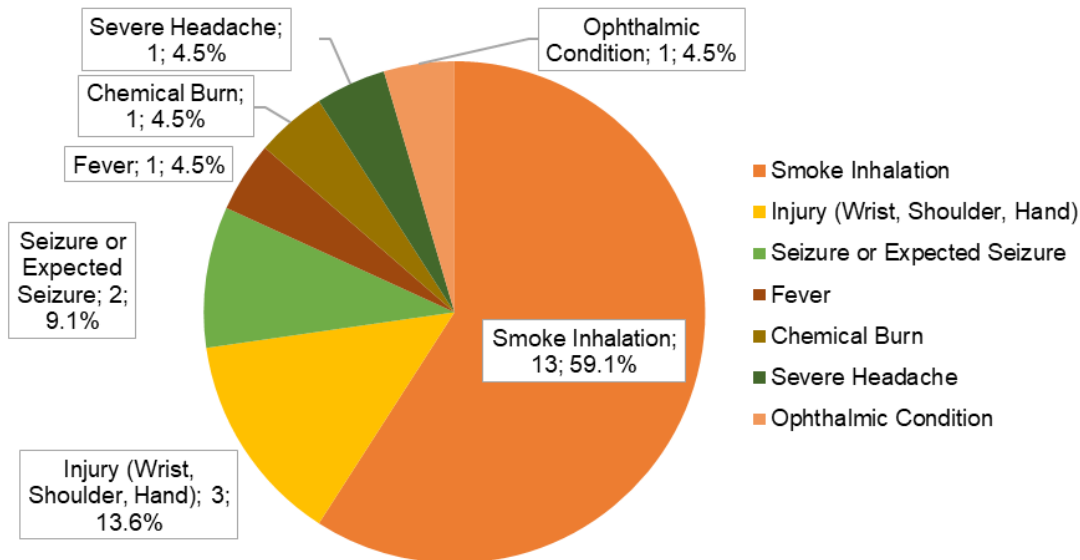
##### **Statistics on Communicable Disease Rates**

Statistics on communicable disease rates was requested from NH. This information requires processing via the FIPPA process and consultation with Indigenous communities (Section 2.4). The data and data collection process will be reviewed to support future reporting periods.

##### **Number of Non-local Mine Workers that Are Being Referred to Local Health Facilities**

In general, during Early Works, BW Gold referred non-local workers to NH facilities only when it was in the best interest of the worker's health and wellbeing. Most health issues were resolved on-site or at the worker's home community.

Prior to Early Works, BW Gold collected data only on the number of diagnostic and treatment centre and/or ER visits for total workforce—local and nonlocal. Beginning April 1, 2023 for Early Works, data collection will be disaggregated by local and non-local. This data will be presented in the future iterations of the CEMMP-R.



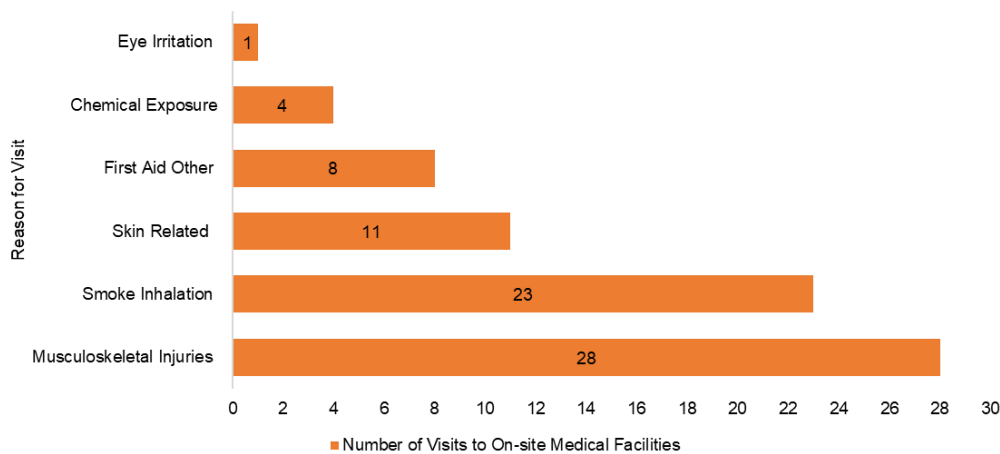
Source: Blackwater Gold, 2023

**Figure 4.2-1: Number of Times Health Care Emergency Services Were Accessed by Mine Workers**

For Mine workforce, records were not kept regarding the number of times non-urgent public health care services were accessed per community during Early Works. On-site nurses refer non-urgent matters that cannot be addressed on-site to health services at the workers’ home communities.

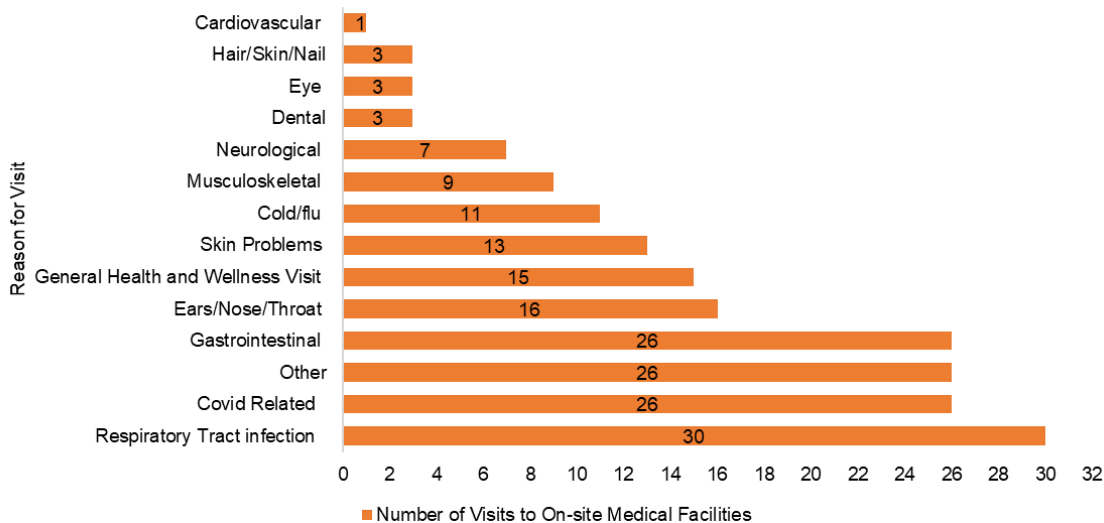
**Type and Number of Medical Visits to On-site Medical Facilities**

Figures 4.2-2 and 4.2-3 present aggregated data on the number and type of medical visits to on-site medical facilities for occupational and non-occupational cases, respectively. Data are reported for September 1, 2022, to March 31, 2023.



Source: Blackwater Gold, 2023

**Figure 4.2-2: Type and Number of Medical Visits to On-Site Medical Facilities (Occupational)**



Source: Blackwater Gold, 2023

**Figure 4.2-3: Type and Number of Medical Visits to On-Site Medical Facilities (Non-Occupational)**

During Early Works, there were a total of 189 visits to on-site medical facilities for non-occupational reasons, and 75 visits for occupational reasons, for a total of 264 visits. The most common occupational reasons were musculoskeletal injuries (28 visits), smoke inhalation (23 visits), and skin related reasons (11 visits). The most common non-occupational reasons were related to respiratory tract infections (30), COVID-19 (26 visits), gastrointestinal (26 visits), and reasons classified as “other” (26 visits). “Other” reasons for visits included neurological, genitourinary, and dermatological cases, bacterial infection, dressing changes, dental pain, health and wellness checks, and follow-up visits.

### Level and Types of Health Services Available On-Site

Medical care is primarily provided at the on-site medical facility, which is staffed by a nurse. The on-site medical facility hosted walk-in clinic hours for occupational and non-occupational illness and injuries, as well as provided mental health assistance.

Health services available on-site include:

- First aid treatment.
- Select treatments outlined in the BC College of Registered Nurse Decision Support Tools.
- Initial and ongoing treatment with oral antibiotics for dental, skin, respiratory, urinary, and ear nose or throat infections.
- Oral and/or intravenous hydration for dehydration secondary to environment, gastro-intestinal illness, or other causes.
- Treatment for conditions requiring initial pain management such as lower back, musculoskeletal, overuse injuries, and dental pain.
- Simple foreign body removal, lancing of abscesses, and wound management.
- Short-term observation of various conditions such as minor head injuries, abdominal pain, or asthma exacerbation.
- Treatment on-site, whenever possible, for a wide array of non-urgent medical issues including prescribing and dispensing medications (starter packs).

On October 1, 2022, International SOS (ISOS) was assigned as the Medical Services Provider (MSP) at the site. ISOS coverage comprises two full-time, on-site Registered Nurses (RNs), who rotate on a two-weeks on, two-weeks off schedule so that one RN is always on site. These RNs worked under the supervision of a Nurse Practitioner, who was further guided by a Medical Director (Physician). The ISOS team implements an escalation process for incidents, beginning with on-site RNs, followed by the nurse practitioner and remote physician. RNs scope of work allowed for urgent and non-urgent health care needs, i.e., administering medications and developing health and wellness programs at site.

Additionally, there is a certified OFA 3 attendant on standby at site. Other staff with first aid training include members of the Mine Emergency Rescue Team and other team members (up to 30 employees with different levels of first aid training).

BW Gold's Health and Medical Services Plan fulfills the intent of the "Health and Medical Services Plan Best Management Guide for Industrial Camps" and will be revised as per the EAC and NH Authority requirements.

#### **Number of Diagnostic and Treatment Centre and/or ER Visits by Non-Residents**

See Section 2.4.

#### **Number of Mine Workers Referred to the Local Healthcare System, by Key Service Category/ Diagnostic Type**

On-site nurses triaged health issues, responded to and remediated cases that could be addressed on-site, and referred non-urgent matters to workers' home communities (Figures 4.2-2 and 4.2-3).

#### **Level of Use of EAP (disaggregated by gender or other indicators of diversity)**

Fewer than ten (10) Mine employees and/or family members accessed mental wellness services through the EAP from July 2022 to June 2023, which includes the Early Works period. Data disaggregated by gender or other indicators of diversity or vulnerability was not available.

#### **Site-management of Injuries and Accidents**

BW Gold Health and Safety Program focuses on incident and hazard prevention by effective implementation of procedures, risk management, and supervision arrangement. If injuries and accidents do occur, they are reported and investigated to draw lessons learned and prevent reoccurrence. Injuries and accidents requiring medical services are triaged by on-site nurses who manage those which can be addressed on-site and refer non-urgent cases to workers' home communities. Only issues which require immediate attention and are in the best interest of the workers are referred to NH facilities, consistent with NH's Health and Medical Services Plan, Best Management Guide for Industrial Camps (NH, 2015).

#### **Number of Engagements and Meetings related to Closure Planning**

No meetings related to closure planning took place during Early Works.

### **4.2.2.2 Mine-related Traffic or Worksite Incidents Resulting in Changes in the Demand for Health Services**

#### **Mine Transportation and Access Contextual Information**

During Early Works employees were on a rotation to site, every two weeks. In the fall of 2022, pick up trucks and passenger vans were used to shuttle workers (on Tuesday and Wednesday). In 2023, shuttle buses were in use, and the schedule was adjusted to a Wednesday/Thursday rotation for BW Gold employees.



Contractors schedules vary by contractor. Contractors were generally accessing the site by company pick up trucks or bus.

BW Gold transportation to the Mine is along Highway 16, from Vanderhoof, west to Bearhead Road to the Kluskus FSR, to the Mine Access Road. This is the only approved route to the Mine site from Vanderhoof.

BW Gold provides bus service to the Mine. Bus stops are located in Williams Lake, Quesnel, Prince George, and Vanderhoof. Employees traveling from other regional communities (e.g., Burns Lake, Fort St. James) must drive or be transported to a secured parking lot in Vanderhoof to access the bus services.

This information is shared to put into context the following information required by the CEMMP, and including communities that are outside the official transportation routes of the Mine.

### Motor Vehicle Accident Data

No car crashes involving BW Gold employees or contractors while on the job were reported during Early Works. Table 4.2-1 lists the number of motor vehicle accidents on key roadways associated with the Mine and region for 2022. Monthly data was not available and therefore it could not be extracted for the Early Works period. In 2022, there was one (1) accident on the Kluskus FSR, 11 on Highway 27, and 287 on Highway 16 within primary community municipality boundaries as defined by ICBC (ICBC, 2023). There were also two (2) crashes at the intersection between Highway 16 and Highway 27 in 2022.

### Number of Times Health Care Emergency Services were Accessed by the Mine

See Section 4.2.2.1, Number of Times Health Care Emergency Services were Accessed by the Mine.

**Table 4.2-1: General ICBC Motor Vehicle Accidents by Roadway and Municipality (2022) – (not related to BW Gold)**

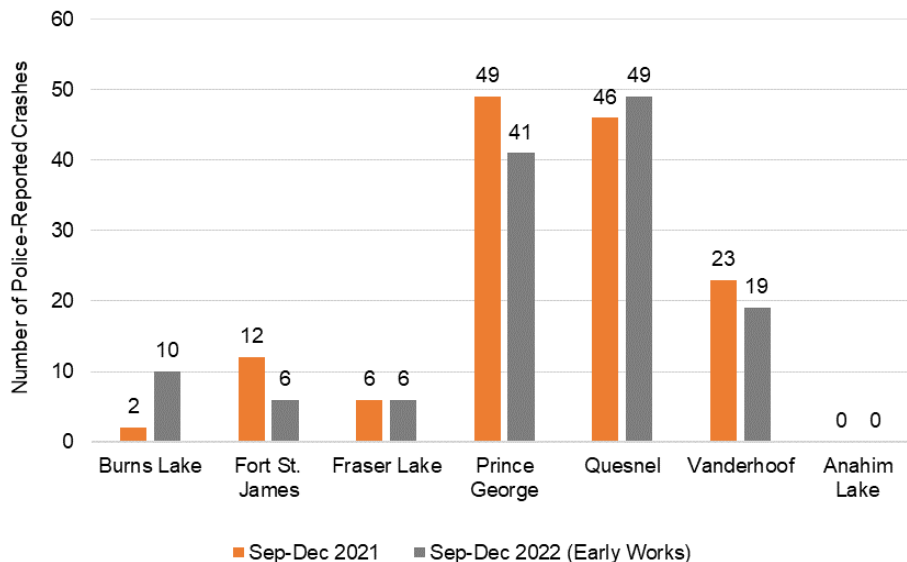
Road	Number of Motor Vehicle Accidents
<b>Kluskus FSR</b>	<b>1</b>
<b>Highway 27 – Total</b>	<b>11</b>
Vanderhoof	3
Fort St. James	8
<b>Highway 16 – Total</b>	<b>287</b>
Burns Lake	9
Fraser Lake	3
Prince George	255
Vanderhoof	20
<b>Intersection between Highway 16 and Highway 27</b>	<b>2</b>

Source: ICBC, 2023

*Note: ICBC-reported crashes are based on reports made to ICBC by insured registered vehicle owners, drivers, pedestrians, and cyclists (ICBC, n.d.).*

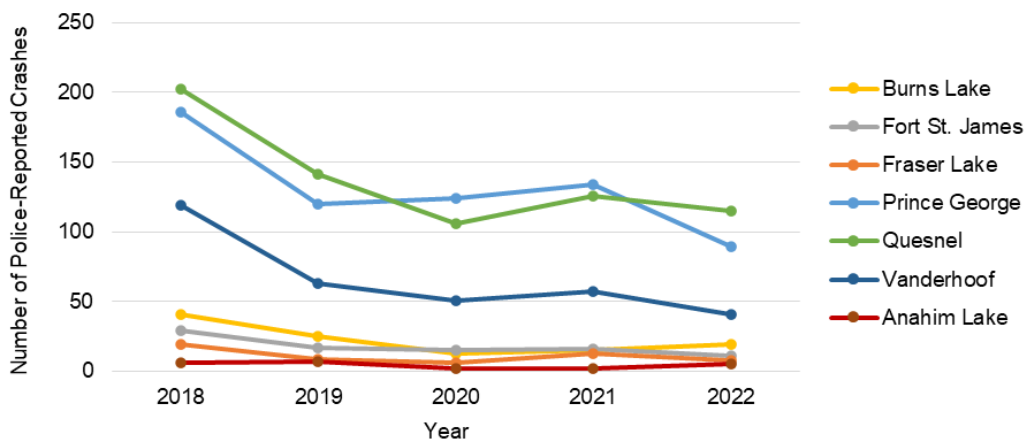
## Police-Reported Crash (TAS) Data

Police-reported crash data (TAS) by primary community was available from September to December 2022 (partial data during Early Works). For comparison/reference, crash data for September to December 2021 and 2022 is shown in Figure 4.2-4, with annual data also presented in Figure 4.2-5.



Source: ICBC, 2023

**Figure 4.2-4: Police-Reported Crash Data (TAS) by Primary Community (September-December, 2021 and 2022)**



Source: ICBC, 2023

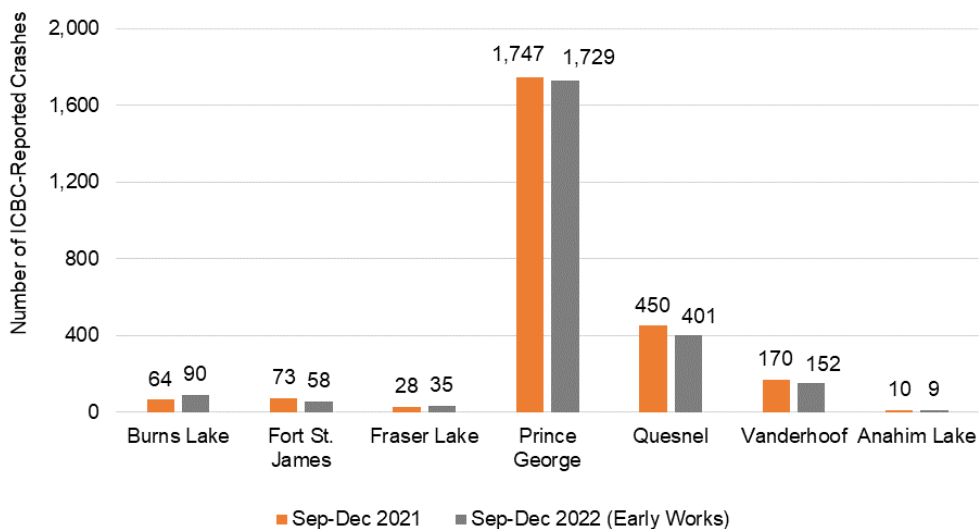
**Figure 4.2-5: Police-Reported Crash Data (TAS) by Primary Community (2018-2022)**

There is no consistent trend in police-reported car crashes across primary communities during Early Works when compared to the same period in 2021. While crashes during the September-December period increased from 2021 to 2022 in Burns Lake, Quesnel, and Fraser Lake for police-reported crashes, they decreased in Fort St. James, Prince George, and Vanderhoof. Changes in the number of crashes can be attributed to different factors (e.g., weather conditions). Annual numbers of police-reported crashes generally declined among most primary communities from 2021 to 2022 and have overall declined since 2018.

Data relevancy to be reviewed as needed for future CEMMP updates and/or CEMMP-Rs as most employees travel via company provided transit.

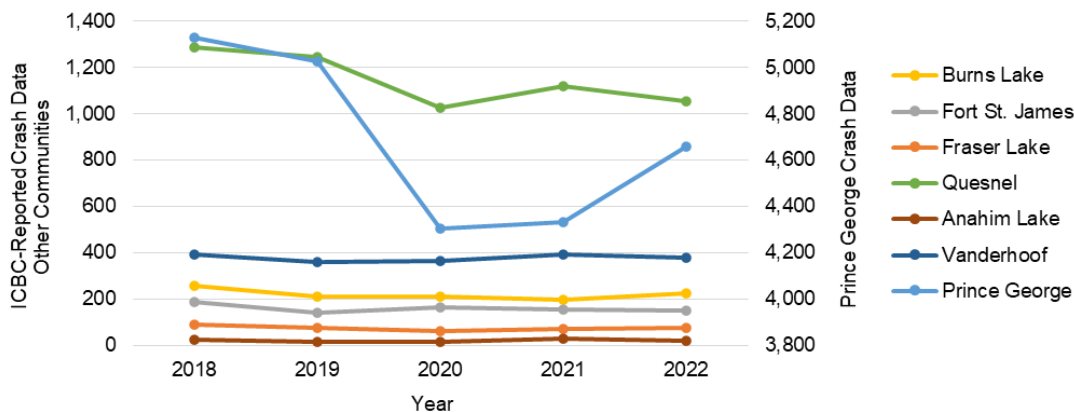
## ICBC-Reported Crash Data

ICBC crash data reported by primary community was available for the first half of Early Works, from September to December 2022. Crash data for September to December 2021 and 2022 is shown in Figure 4.2-6, with annual data also presented in Figure 4.2-7.



Source: ICBC, 2023

**Figure 4.2-6: ICBC-Reported Crash Data by Community (September-December, 2021 and 2022)**



Source: ICBC, 2023

**Figure 4.2-7: ICBC-Reported Crash Data by Community (2018-2022)**

Similar to police-reported crashes, there is no consistent trend in ICBC-reported car crashes across primary communities when comparing the first half of Early Works (September to December 2021) to the same period in 2021. Annual numbers of reported car crashes decreased or did not fluctuate notably compared to previous years in most primary communities from 2021 to 2022, with the exception of Prince George. Prince George saw an increase in annual crashes reported to ICBC from 2021 to 2022 (an increase of 328 from 2021 to 2022). However, Prince George decreased in ICBC-reported crashes from the Early Works period (September to December) 2021 to the same period in 2022, indicating that this increase is caused by crashes outside of the Early Works period.

Data relevancy for all communities to be reviewed as needed for future CEMMP updates and/or CEMMP-Rs as most employees travel via company provided transit.

## Number of Crew Chats or Rollout of Health-related Policies

BW Gold conducted 414 crew toolbox discussions (i.e., number of crew chats, as identified for monitoring under the CEMMP) throughout Early Works. Nine health-related policies were implemented (i.e. “rolled-out” as identified for monitoring under the CEMMP), and four were initiated during Early Works.

Implemented policies which were rolled out during Early Works included:

- Occupational Health and Safety Management Plan.
- Communicable Disease Procedure.
- Site Access Procedure.
- Incident and Loss Prevention Procedure.
- Mine Emergency Response Plan.
- Energy Isolation and Tagging Procedure.
- Emergency Activation Procedure.
- PPE Standard.
- Fit for Duty Standard.

Initiated policies, which were in progress but not fully rolled out during Early Works, included Risk Management, Critical Risk Standards – Safety, Critical Risk Standards – Health, and Health and Medical Services Plan.

### 4.2.3 Interpretation

A review of secondary sources found that services remain at or above capacity as described in the CEMMP-B, with all trends in line with conditions prior to Early Works. Use of local health care emergency services was limited to ER visits to St. John Hospital in Vanderhoof.

Limited data regarding the use of diagnostic and treatment centre and/or ER visits by non-local Mine workers means it is not possible to determine a link between non-local Mine employees’ use of health services and ability of these services to meet local demand.

BW Gold provided a suite of urgent and non-urgent medical services on-site, including injury and accident management procedures, health and safety policies and procedures, and coordination with local service providers. BW Gold conducted 414 crew toolbox discussions throughout Early Works. Nine health-related policies were implemented, and four were initiated during Early Works.

No personal vehicles are allowed at site. Section 4.2.2.2 reports that BW Gold or contractors’ pick-up trucks can be used on and off-site. During Early Works, pick-up trucks, passenger vans, and shuttle buses were used to shuttle workers twice a week along Highway 16 to the Kluskus FSR, stopping in Williams Lake, Quesnel, Prince George, and Vanderhoof. Contractors used either BW Gold bussing services or transportation services through their employer. Given that no car crashes involving BW Gold employees or contractors while on the job were reported during Early Works, and the relatively small increases in car crashes reported in some primary communities, it is unlikely that the Mine had an influence on car crashes during Early Works, and as such, limited influence on pressure on health services required in relation to traffic incidents and accidents.

In consideration of the above, there is no evidence that the Mine resulted in a change in the demand for health services during Early Works. Similarly, there were no observable changes to traffic or worksite incidents resulting in demand for health services due to the Mine during Early Works. As such, the stated Early Works predictions related to health services, of an increase on demand for health services, are not supported for the Early Works period.

## 4.2.4 Summary of Mitigation Measures

BW Gold provides health and safety programs, policies and initiatives to promote the health and safety of BW Gold workforce. These measures intend to protect worker health and safety, and also aim to reduce demand for health care and emergency services in primary communities. These include:

- Providing a self-contained camp to accommodate workers.
- Providing on-site nurses and emergency services, supported by the development and implementation of a medical protocol to meet the workforce's urgent and nonurgent health care needs.
- Providing an Employee Assistance Program.
- Working with local service providers and communities to develop a Mine Closure Plan that identifies strategies and actions to help minimize the potential adverse effects of closing the Mine.
- Promoting a harassment-free workplace to employees and maintaining a zero-tolerance alcohol and drug policy on-site and in camp at any time; participation in training, recognition by other employees and violations will be tracked; violations will not be tolerated.
- Requiring a medical exam and a drug test for all new employees; random drug testing may also be conducted on site, as required.
- Providing health and medical equipment and personnel on-site to meet the requirements of the "Health, Safety and Reclamation Code for Mines in British Columbia" and WorkSafe BC.
- Working with local service providers to address changes in demand for health services.

Refer to Appendix A for a detailed description of mitigation measures.

## 4.3 Protective Services

### 4.3.1 Predictions

#### **Early Works and Construction**

The following predictions were made in the Application/EIS:

- Changes to in-migration and out-migration could affect demand for protective services. No significant increase in demand for protective services was predicted for construction, since migration during this phase was expected to be minimal (New Gold, 2015, pp. 7.2.4-15).
- Traffic to and from the Mine site could increase demand for protective services during construction if accidents were to occur (New Gold, 2015, pp. 7.2.4-15).
- Incidents at the worksite could increase demand for protective and emergency services during construction (New Gold, 2015, pp. 7.2.4-15).

#### **Operation**

The following predictions were made in the Application/EIS:

- In-migration could create additional demand for protective services (New Gold, 2015, pp. 7.2.4-16).
- Traffic to and from the Mine site could increase demand for protective services during operations if accidents were to occur (New Gold, 2015, pp. 7.2.4-15).
- Incidents at the worksite could increase demand for protective and emergency services during operations (New Gold, 2015, pp. 7.2.4-15).

## Closure

The Application/EI predicted that out-migration could reduce demand for protective services (New Gold, 2015, pp. 7.2.4-16).

## Post-Closure

The Application/EIS predicted a negligible effect on protective services for the post-closure phase (New Gold, 2015, pp. 7.2.4-16).

### 4.3.2 Data

Change in demand for protective services as a result of Mine-related transient workforce or in-migration, throughout all Mine phases, are monitored through the following indicators:

- BC policing jurisdiction crime trends, per community, including:
  - Number of criminal code offences, per community.
  - Total crime rate, per community.
  - Number of violent offences, per community.
- Number of engagements and meetings related to closure planning per community and/or CLC.

Change in demand for protective services resulting from Mine-related traffic and worksite incidents throughout construction, operation and closure phases, are monitored through the following indicators:

- Police-Reported Crash Data (TAS).
- Number and type of health and safety incidents on site.
- Number of times emergency services were accessed by the Mine, per community.
- Number of engagements and meetings with emergency services providers and NH regarding the Mine.

Data relevancy for all communities to be reviewed as needed for future CEMMP updates and/or CEMMP-Rs.

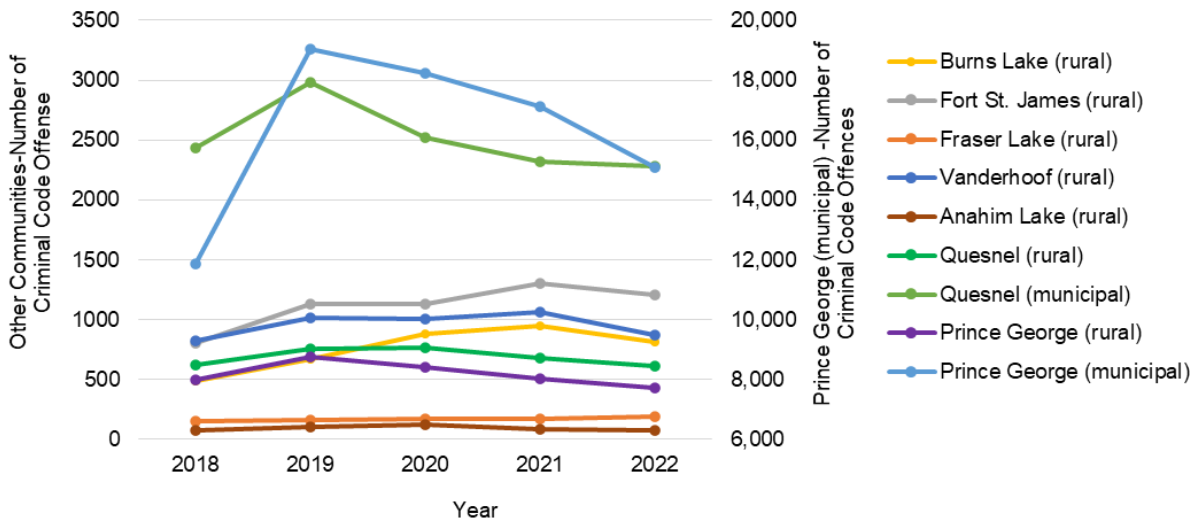
#### 4.3.2.1 Change in Demand for Protective Services as a Result of a Mobile Workforce or In Migration

##### Number of Criminal Code Offences, Per Community

Figure 4.3-1 depicts trends in the number of Criminal Code offences (excluding traffic offences) by RCMP detachment from 2018 to 2022.

Number of Criminal Code offences are reported annually, and as such, include data for the months prior to Early Works. As such, crime data for the second half of Early Works (January to March 2023) is not available and Criminal Code offences do not provide a complete understanding of crime in the primary communities during Early Works. Similar interpretation can be applied to data in related sections (total crime rate and number of violent offences).

The number of criminal code offences decreased in most primary communities' RCMP detachments from 2021 to 2022, with the exception of Fraser Lake, where criminal code offences increased from 176 to 192 over the same period. Prince George and Quesnel (municipal and rural) have had declining offences since 2019. However, for other primary communities, historical trends in criminal code offences are harder to identify as offences increased in some but decreased in other years, without a detectable trend.



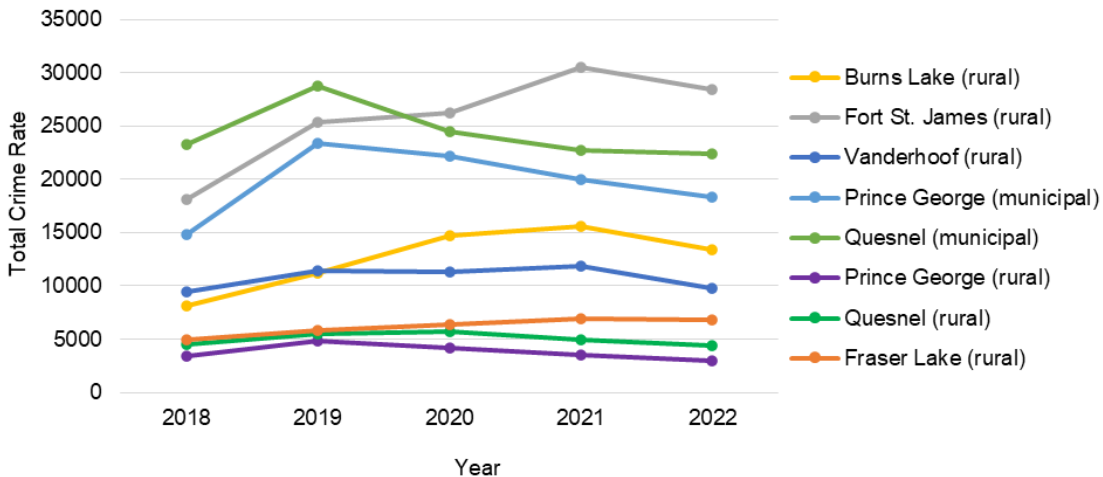
Source: Statistics Canada, 2023a

Note: Total Criminal Code offences exclude traffic offences.

**Figure 4.3-1: Number of Criminal Code Offences by RCMP Detachment (2018-2022)**

### Total Crime Rate, per Community

Crime rate represents the number of Criminal Code offences (excluding traffic) reported for every 1,000,000 persons by RCMP detachment. Figure 4.3-2 depicts trends in crime rate by RCMP detachment for 2018 to 2022. Total crime rates have decreased at every primary community RCMP detachment from 2021 to 2022, which aligns with criminal code offence counts. Similar to criminal code offenses, crime rates had been declining in both municipal and rural communities of Prince George and Quesnel since 2019.



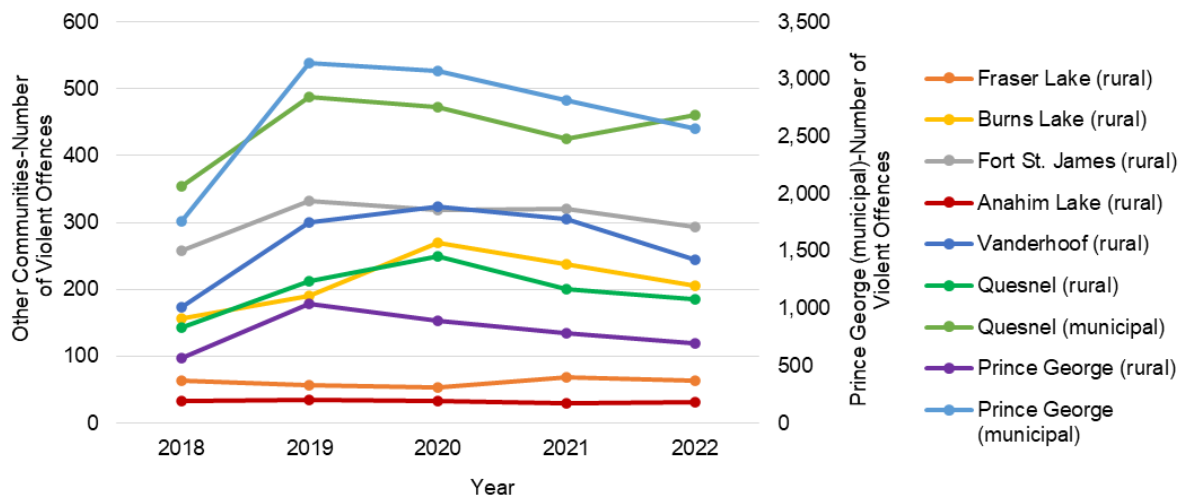
Source: Statistics Canada, 2023a

Note: Crime rate data was not available for Anahim Lake.

**Figure 4.3-2: Total Crime Rate by RCMP Detachment (2018-2022)**

### Number of Violent Offences, per Community

The number of violent offences (2018 to 2022) are presented in Figure 4.3-3. As categorized by Statistics Canada, violent crimes include homicide, attempted murder, various forms of sexual and non-sexual assault, robbery and abduction.



Source: Statistics Canada, 2023a

**Figure 4.3-3: Number of Violent Offences by RCMP Detachment (2018-2022)**

The number of violent offences decreased from 2021 to 2022 in most primary communities, with the exceptions of Quesnel (municipal) and Anahim Lake. The number of violent crimes in Quesnel (municipal) increased from 425 in 2021 to 461 in 2022, although still falling below a five-year peak of 487 offences in 2019. The number of violent crimes in Anahim Lake increased from 29 to 31 over the same period, representing the second-lowest number of annual offences since 2019. Primary communities with decreasing violent offences from 2021 to 2022 were generally already experiencing a declining trend in violent offences prior this period.

### Engagements and Meetings Related to Closure Planning per Community and/or CLC

No meetings related to closure planning took place during Early Works. Data relevancy for all communities to be reviewed as needed for future CEMMP updates and/or CEMMP-Rs.

#### 4.3.2.2 Mine-related Traffic and Worksite Incidents Change in Demand for Protective Services

##### Police-Reported Crash Data (TAS)

Police-reported crash data (TAS) is presented in Section 4.2.2.2 and considered in the interpretation for protective services.

##### Number and Type of Health and Safety Incidents On-Site

Table 4.3-1 presents the number and type of on-site health and safety incidents during Early Works. As per the BW Gold Incident and Loss Prevention Investigation Manual, incidents are defined as an “undesired occurrence that has resulted in or has the potential to result in adverse damage (or impact) to people, the environment, property, or a combination of these, including significant deviations from standard operating procedures.”<sup>11</sup> The most common types of on-site health and safety incidents were “last minute risk assessment”, which occurred 9,033 times, followed by 625 reporting hazards. Security,

<sup>11</sup> Incidents are classified by the BW Gold Incident and Loss Prevention Investigation Manual as internal incidents or external notifications. Internal incidents are categorized using the following categories: health and safety, environment, business loss, damage, security, near miss, non-statistical injury, optional reporting/report only. External notifications (reportable incidents to regulators and First Nations) include health, safety, and environment incidents.



regulatory, restricted work injury, and production loss incidents all occurred six times or less. The majority of these incidents did not result in use of Mine emergency services.

**Table 4.3-1: Number and Type of Health and Safety Incidents on Site (Early Works)**

Type of Incident	Number of Times
Last Minute Risk Assessment	9,033
Hazards Reported	625
Near Miss	60
Environmental Incidents	56
Property Damage	30
First Aid Injury	19
Security	6
Regulatory	3
Restricted work injury	2
Production Loss	2
<b>Total</b>	<b>9,859</b>

Source: Blackwater Gold, 2023

#### **Number of Times Emergency Services were Accessed by the Mine**

See Section 4.2.2.1, Number of Times Health Care Emergency Services were Accessed by the Mine. No fire department or RCMP services were accessed by the Mine during Early Works.

#### **Engagements and Meetings with Emergency Services Providers and Northern Health regarding the Mine**

Regular meetings occurred between BW Gold and NH during Early Works, and a mutual aid agreement was signed between BW Gold and Vanderhoof Fire Department in October 2022. BW Gold’s team tasked with implementing the Mine Emergency Rescue Plan specifically collaborated with NH, BC Ambulance Services, and internal stakeholders to establish clear protocols for patient transfers in various scenarios. The specific number of engagements and meetings with emergency services providers and NH regarding the Mine were not tracked during Early Works.

#### **4.3.3 Interpretation**

Since crime statistics are not reported monthly, and any interpretation of a relationship between Mine Early Works and crime would be heavily influenced by pre-Early Works data from 2022. Because of this, no conclusive correlation or causation between Early Works activities and crime in primary communities can be identified. In consideration of the low to no in-migration to primary communities described in Section 3.0, a change in demand for protective services as a result of the Mine’s transient or mobile workforce or in migration is not observed and the related prediction for Early Works is not supported.

There is no specific trend in police-reported car crashes across primary communities during Early Works compared to the same months of 2021, as presented in Section 4.2.2.2. The number of police-reported car crashes per community in September to December 2022 generally falls within existing trends. No car

crashes involving BW Gold employees or contractors while on the job were reported during Early Works. It is considered unlikely that Mine-related traffic resulted in an increase in demand for protective services. The overwhelming majority of health and safety incidents were addressed on-site and no ambulance, fire department, or RCMP services were required by BW Gold during Early Works. This result aligns with the predicted effect, and the Mine is not having an effect on protective services for the Early Works period. Notwithstanding, as the workforce increases during construction, the indicators are being monitored and adaptive management will be used, if required, to address pressure from the Mine on these services.

#### 4.3.4 Summary of Mitigation Measures

BW Gold implemented policies and initiatives to promote the health and safety of Mine employees and contractors, and reduce the number of related incidents on-site and in communities. These measures collectively work to limit Mine-driven demand on protective services (i.e., ambulance, fire departments, and RCMP). These measures are:

- Focus recruitment and hiring efforts on communities in the LSA and RSA.
- Provide self-contained camp to accommodate workers.
- Promote harassment-free workplace to its employees and maintain zero-tolerance alcohol and drug policy on-site and in camp at any time; participation in training, recognition by other employees and violations will be tracked; violations will not be tolerated.
- Work with Northern Health, local fire departments, RCMP, and BC Ambulance to ensure that the appropriate information on the changes in area transportation volumes, mine operations, and the change to the local population are considered.
- Provide firefighting equipment and trained personnel to meet all on-site fire and rescue needs.
- Provide at the Mine site trained Mine rescue personnel and Mine rescue equipment as well as onsite security.
- Work with local service providers and communities to develop a Mine Closure Plan that identifies strategies and actions to help minimize the potential adverse effects of closing the Mine.

Refer to Appendix A for a detailed description of mitigation measures.

## 4.4 Social Services

### 4.4.1 Predictions

#### **Early Works and Construction**

The Application/EIS predicted that in-migration of Mine workforce during construction could create additional demand for social services. However, no appreciable increase in demand for social services was predicted for construction, since migration during this phase was expected to be minimal (New Gold, 2015, pp. 7.2.4-17).

#### **Operation**

The Application/EIS predicted that in-migration of Mine workforce during operations could create additional demand for social services. However, increase in demand for social services was predicted for to be within existing capacity (New Gold, 2015, pp. 7.2.4-17).

## **Closure**

The Application/EIS predicted that out-migration could reduce demand for social services (New Gold, 2015, pp. 7.2.4-17).

## **Post-Closure**

The Application/EIS predicted a negligible effect on social services for the post-closure phase (New Gold, 2015, pp. 7.2.4-17).

### **4.4.2 Data**

Change in demand for social services due to Mine workforce and their families during construction, operation and closure phases, are monitored through the following indicators:

- Number of employees and family members that use counselling services at the Mine (i.e., EAP) (disaggregated by gender and other indicators of diversity or vulnerability).
- Statistics on the use of social services, per community and per service.
- Number of engagements and meetings related to closure planning per community and/or CLC.

#### **4.4.2.1 Change in Demand for Social Services due to Mine Workforce and Their Families**

##### **Employees and Family Members that Use Counselling Services at the Mine (EAP)**

Statistics on the use of counselling services by Mine employees were available through the Lumino (Sunlife) Health Virtual Care EAP. Data disaggregated by gender or other indicators of diversity or vulnerability was not available. A total of 17 individuals (including Mine employees and family members) accessed the EAP for a total of thirty times (30) from July 2022 to June 2023; thus, some individuals accessed it more than once. Data disaggregated by month was not available, so it is not clear how many or which of these accesses took place during Early Works.

EAP services are focused on counselling, covering a variety of individual and family needs. Fewer than ten (10) Mine employees and/or family members accessed mental wellness services through the EAP from July 2022 to June 2023, which includes the Early Works period.

##### **Statistics on the Use of Social Services, per Community and per Service**

Statistics on the use of social services, per community and per service were requested through IRFs for the CEMMP-B; however, the requested information was not received and similar statistics were not found in public sources. In the CEMMP-B, some CLC respondents indicated general pressures on social services in their communities existing prior to Early Works. BW Gold will assess the relevance of available data and potentially make adjustments to future iterations of CEMMP indicators and reporting.

A review of secondary sources found no significant changes to social services offered in any non-reserve primary community since the CEMMP-B. Non-reserve primary communities continue to offer a variety of social services. In relation to Early Works, there is no evidence of changes in on-reserve offerings of social services compared to the services described in the CEMMP-B. Social services for Indigenous communities living on-reserve are primarily provided by Band Administrations, although some programs offered on-reserve are funded or staffed by off-reserve organizations (e.g., Carrier Sekani Family Services, Prince George Nechako Aboriginal Employment and Training Association).

##### **Engagements and Meetings related to Closure Planning per Community and/or CLC**

No meetings related to closure planning took place during Early Works.

### 4.4.3 Interpretation

There is limited data available regarding public demand for social services in primary communities and it is not possible to draw a conclusive link between Mine workers' use of social services during Early Works and any change in the ability for local service providers to support the local population, and thus, it is not possible to determine if the related prediction is supported.

### 4.4.4 Summary of Mitigation Measures

BW Gold provides mental health and wellness programs for Mine employees and contractors to support general health and safety at site, and also prevent overburdening of local social services. Efforts made by BW Gold to reduce burden on social services as a result of the Mine include:

- Focusing recruitment and hiring efforts on communities in the LSA and RSA.
- Promoting a harassment-free workplace to employees and maintaining a zero-tolerance alcohol and drug policy on-site and in camp at any time; participation in training, recognition by other employees and violations will be tracked; violations will not be tolerated.
- Providing an EAP.
- Implementing measures to facilitate a respectful workplace and safety and security of employees, with a focus on multi-cultural workforce considerations.
- Providing Indigenous cultural awareness training to all new employees.
- Working with local service providers and communities to develop a Mine Closure Plan that identifies strategies and actions to help minimize the potential adverse effects of closing the mine.

Refer to Appendix A for a detailed description of mitigation measures.

## 5.0 Family and Community Well-being

### 5.1 Predictions

#### Early Works and Construction

The following predictions were made in the Application/EIS:

- Employment income during construction would reduce economic hardship of families in the socio-economic regional study area<sup>12</sup> (New Gold, 2015, pp. 7.2.5-15).
- Positive or negative decisions on spending disposable income (e.g. saving additional income vs. spending on socially disruptive activities) could both increase and/or decrease family and community well-being during the construction phase (New Gold, 2015, pp. 7.2.5-15).
- Mine employment could contribute to inequality of employment and income, however, no appreciable increase in inequality was predicted for any Mine phase (New Gold, 2015, pp. 7.2.5-15).
- Influx of construction workers could reduce family and community well-being if transient population engages in socially disruptive or illegal activities. However, no substantial increase in disruptive or illegal activities was predicted, since migration during construction was expected to be minimal (New Gold, 2015, pp. 7.2.5-15).
- Camp accommodation and work rotation schedules could lead to deterioration of family relationships during construction (New Gold, 2015, pp. 7.2.5-16).

#### Operation

The following predictions were made in the Application/EIS:

- Employment income during operations would reduce economic hardship of families in the socio-economic regional study area (New Gold, 2015, pp. 7.2.5-15).
- Positive or negative decisions on spending disposable income (e.g. saving additional income vs. spending on socially disruptive activities) could both increase and/or decrease family and community well-being during operations (New Gold, 2015, pp. 7.2.5-15).
- Mine employment could contribute to inequality of employment and income, however, no appreciable increase in inequality was predicted for any Mine phase (New Gold, 2015, pp. 7.2.5-15).
- Camp accommodation and work rotation schedules could lead to deterioration of family relationships during operations (New Gold, 2015, pp. 7.2.5-16).
- Influx of construction workers could reduce family and community well-being if transient population engages in socially disruptive or illegal activities (New Gold, 2015, pp. 7.2.5-17).

#### Closure

The Application/EIS predicted that closure could result in loss of jobs and income, and potential out-migration, resulting in a potential increase of economic hardship and reduction of employment income (New Gold, 2015, pp. 7.2.5-17).

#### Post-Closure

The Application/EIS predicted a negligible effect on family and community well-being for the post-closure phase (New Gold, 2015, pp. 7.2.5-17).

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<sup>12</sup> The primary communities being monitored as part of the CEMMP were identified from within the Socio-Economic Regional Study Area of the Application/EIS.

## 5.2 Data

Changes in Mine-related employment and potential reduction of economic hardship of families in local communities during construction and operation, are monitored through the following indicators:

- Mine employment per community (disaggregated by gender and other indicators of diversity).
- Total and average income paid to BW Gold employees and contractors (disaggregated by gender and other indicators of diversity).
- Average and median income.

Changes to family and community well-being for employees from local communities as a result of poor spending decisions, throughout construction and operation, are monitored through the following indicators:

- Total and average income paid to BW Gold employees and contractors (disaggregated by gender and other indicators of diversity).
- Average and median income.
- Statistics on most accessed EAP services.

Changes to inequality of employment and income as a result of Mine employment and training, during construction and operation, are monitored through the following indicators:

- Total and average income paid to BW Gold employees and contractors (disaggregated by gender and other indicators of diversity).
- Average and median income.

Change in family health and wellbeing (e.g., sense of security) due to a mobile workforce that travels to region to participate in Mine-related employment, and also can engage in socially disruptive activities, during construction and operation, are monitored through the following indicators:

- BC policing jurisdiction crime trends, per community:
  - Number of drug offences.
  - Number of vehicle theft offences.
  - Number of property offences.
- CWB index.
- Feedback and comments, and discussion by CLC members pertaining to mental health changes in primary communities.

Change in family relationships of Mine employees in local communities due to work rotation/schedule, during construction and operation, are monitored through the following indicators:

- Number of employees and family members that use counselling services at the Mine (i.e., access the EAP) (disaggregated by gender and other indicators of diversity).
- Statistics on most accessed EAP services.
- Number of employees that resign due to family reasons (disaggregated by gender and other indicators of diversity).
- Mine turnover rates (disaggregated by gender and other indicators of diversity).

Change in employment and income during closure, are monitored through the following indicators:

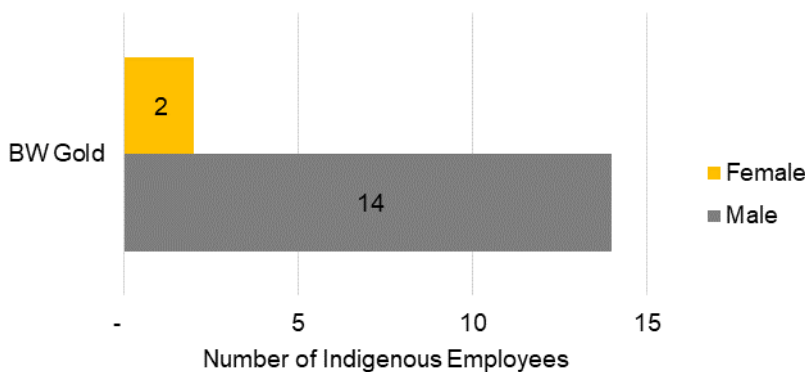
- Number of jobs and FTEs for Mine employees/contractors (disaggregated by gender, Indigenous identity, and other indicators of diversity).

- Total and average income paid to Mine employees/contractors (disaggregated by gender and other indicators of diversity).
- Number of engagements and meetings related to closure planning.

### 5.2.1.1 Mine-related Employment Reduces Economic Hardship of Families in Local Communities

#### Disaggregated Mine Employment per Community

Mine employment data is presented in Section 3.2.2. Disaggregated employment data is presented in relation to this effect because acute or chronic economic hardship is often experienced differently (in terms of intensity, duration, etc.) by different population subgroups due to a variety of systemic factors. This is particularly relevant for individuals identifying as part of multiple subgroups, such as Indigenous women. Disaggregated employment data for Indigenous employees is presented in Figure 5.2-1 for BW Gold employees only; similar detail was not available for employees hired by Mine contractors. Male workers represented a higher percentage of the BW Gold workforce compared to women in both non-reserve communities (68%) and reserve communities (88%).<sup>13</sup> No non-binary employees were reported by BW Gold; however, disclosure was voluntary, so it is possible that any non-binary employees did not self-disclose this information.



Source: Blackwater Gold, 2023

**Figure 5.2-1: Indigenous Employment by Gender (BW Gold only)**

Information on other indicators of diversity or vulnerability was not available for the Early Works period.

#### Total and Average Income Paid to BW Gold Employees and Contractors

Table 5.2-1 presents total and average income paid to BW Gold employees, disaggregated by gender and Indigenous identity. A total of \$9,529,948 in income was paid to BW Gold employees during Early Works, with an average income of \$113,451, annually<sup>14</sup>.

Male BW Gold workers earned higher wages (\$119,172) compared to female workers (\$99,150). Indigenous men and women both had lower average incomes compared to the averages for total men and women (\$85,254 and \$70,692, respectively for Indigenous men and women). This salary discrepancy is likely due to the type of roles at the Mine, certifications, education, training, tenure, and/or experience.

<sup>13</sup> Disaggregated employment data by community is not presented to protect the privacy of individual workers, given the small size of the dataset.

<sup>14</sup> The average income is based on an annual salary.

**Table 5.2-1: Total and Average Income Paid to BW Gold Employees**

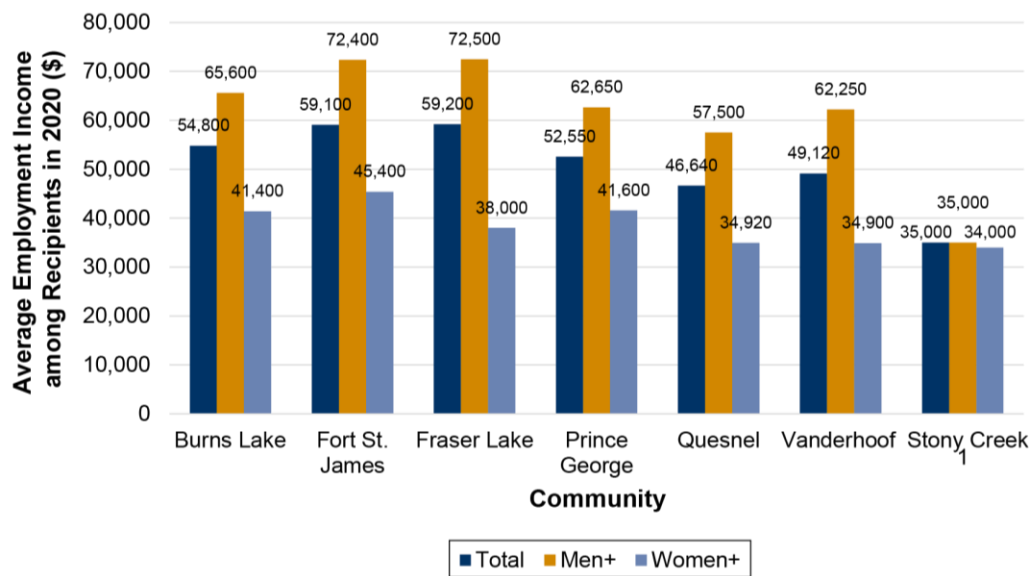
Indicator	Income (\$, CAD)
Total income paid to BW Gold employees	9,529,948
Average income (all BW Gold employees)	113,451
Male	119,172
Female	99,150
Indigenous Male	85,254
Indigenous Female	70,692

Source: Blackwater Gold, 2023

Note: Contractor data is not included due to limited information provided by contractors. Eight out of 11 contractors did not provide income data, two contractors provided incomplete data and only one provided complete data.

**Average and Median Income**

Figure 5.2-2 presents average and Figure 5.2-3 presents median income by primary community from the 2021 Census of Population. In every primary community with data available for the reference year 2020<sup>15</sup>, women’s average incomes were lower than the income of men.



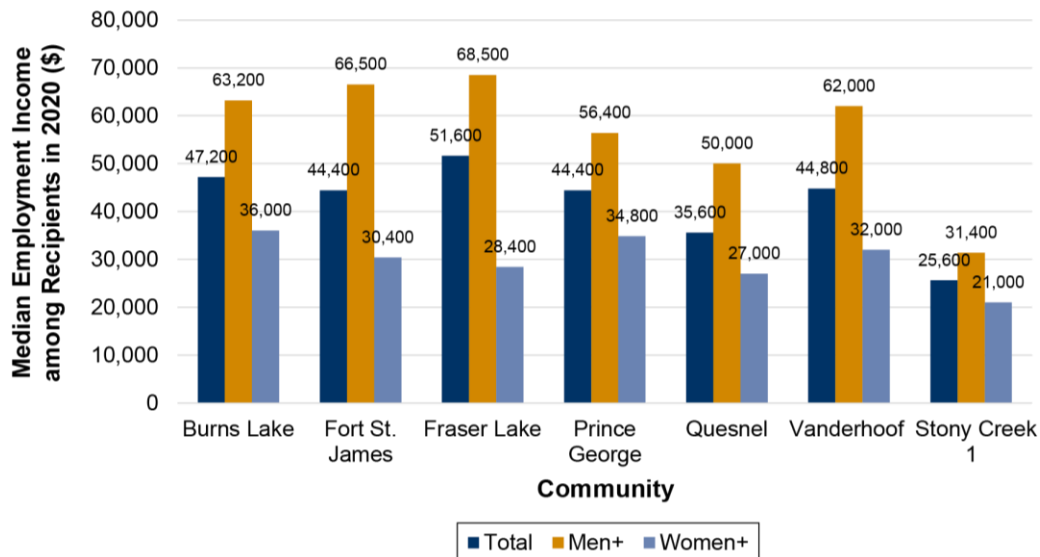
Source: Statistics Canada, 2022

Notes: Based on 100% sample data. No average employment income data was available for Anahim Lake or any reserves other than Stony Creek 1 in accordance with Statistics Canada privacy measures.

**Figure 5.2-2: Average Employment Income among Recipients (\$, CAD) by Community and Gender (2020)**

<sup>15</sup> The 2021 Census of Population provides income data for 2020.





Source: Statistics Canada, 2022

Notes: Based on 100% sample data. No median employment income data was available for Anahim Lake or any reserves other than Stony Creek 1 in accordance with Statistics Canada privacy measures.

**Figure 5.2-3: Median Employment Income among Recipients (\$, CAD) by Community and Gender (2020)**

The primary community with the lowest median and average incomes in 2020 was Stony Creek 1, the only reserve with available on income statistics (\$35,000 average income for total population, \$35,000 for men+, and \$34,000 for women+) <sup>16</sup>. Fraser Lake had the highest average and median incomes in 2020 out of all primary communities.

### 5.2.1.2 Changes to Family and Community Well-Being for Employees from Local Communities as a Result of Poor Income Spending Decisions

#### Total and Average Income Paid to BW Gold Employees and Contractors

See data reported in Table 5.2-1.

#### Average and Median Income

See data reported in previous sections, specifically in Figures 5.2-2 and 5.2-3.

#### Statistics on Most Accessed EAP Services

A total of 17 individuals (including Mine employees and family members) accessed the EAP for a total of thirty times (30) from July 2022 to June 2023; thus, some individuals accessed it more than once. Data was not available by month, gender, or other indicators of diversity, in part to protect individuals' privacy. The following services provided by the EAP were accessed during this period:

- Vision and Hearing.

<sup>16</sup> Given that the non-binary population is small, data aggregation to a two-category gender variable was implemented by Statistics Canada to protect the confidentiality of responses provided. In these cases, individuals in the category "non-binary persons" are distributed into the other two gender categories and are denoted by the '+' symbol. "Men+" includes men (and/or boys), as well as some non-binary persons. "Women+" includes women (and/or girls), as well as some non-binary persons. All references to men and women in the context of the 2021 Census should be understood as reflecting this data aggregation, even where the '+' symbol is not present.

- Food and Nutrition.
- Medical Products and Resources.
- Pet Health.
- Mental Wellness.

In each of the services noted above, fewer than 10 individuals accessed the service. When the number of individuals accessing a service is fewer than ten, BW Gold’s EAP provider does not share the exact number of employees per service, in part to protect privacy.

### 5.2.1.3 Changes to Inequality of Employment and Income as a Result of Mine Employment and Training

#### Total and Average Income Paid to BW Gold Employees and Contractors

See data reported in Table 5.2-1.

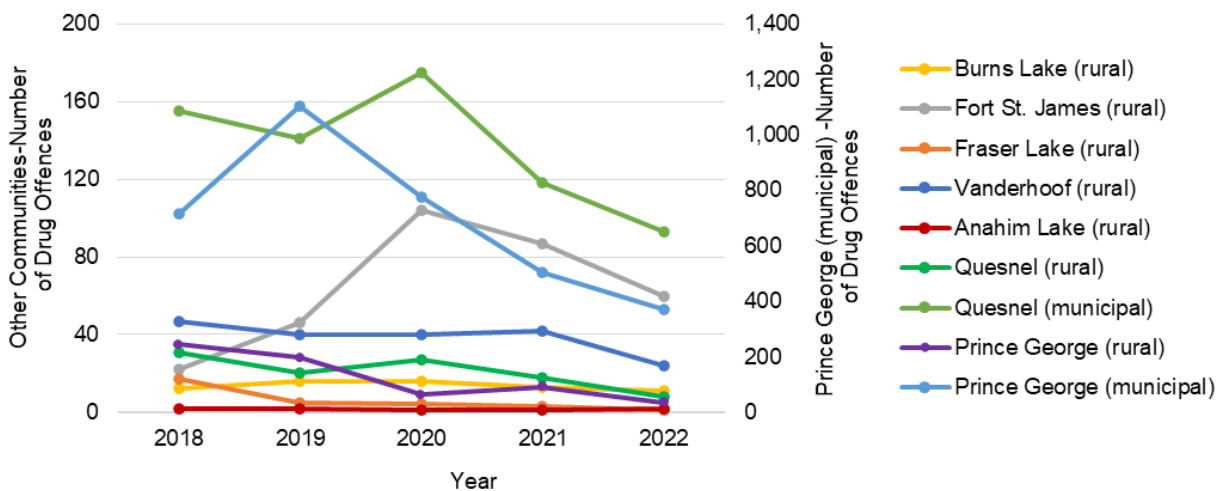
#### Average and Median Income

See data reported in previous sections, specifically in Figures 5.2-2 and 5.2-3.

### 5.2.1.4 Change in Family Health and Wellbeing (e.g., Sense of Security) due to a Mobile Workforce Engaging in Socially Disruptive or Illegal Activities

#### Number of Drug Offences

Drug offences are defined by the BC Ministry of Public Safety and Solicitor General Policing and Security Branch as follows: “crimes committed under the *Controlled Drugs and Substances Act (CDSA)* and the *Cannabis Act*. The CDSA drug offences include possession, trafficking, production, and distribution of cannabis, cocaine, heroin, non-heroin opioids (including fentanyl), and methamphetamines (crystal meth), and other drug offences. When the *Cannabis Act* came into force on October 17, 2018, all prior cannabis-related legislation under the CDSA was replaced, and cannabis possession became legal, except under certain circumstances. Drug offences are not included in the Total Criminal Code offences.” (BC Ministry of Public Safety and Solicitor General Policing and Security Branch, 2022) Figure 5.2-4 presents trends in drug offences from 2018 to 2022.



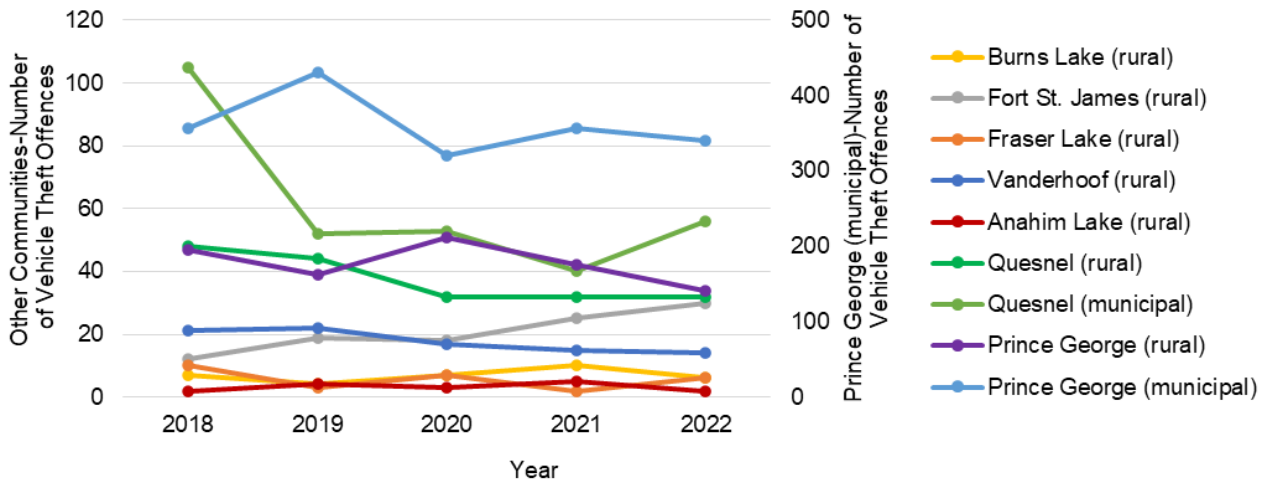
Source: Statistics Canada, 2023a

**Figure 5.2-4: Number of Drug Offences by RCMP Detachment (2018-2022)**

The number of drug offences by RCMP detachment decreased in every primary community except for Anahim Lake, where drug offences increased from one (1) in 2021 to two (2) in 2022. This is consistent with the general downward trend in this indicator in primary communities.

### Number of Vehicle Theft Offences

Vehicle theft offences are defined by the BC Ministry of Public Safety and Solicitor General Policing and Security Branch as follows: “motor vehicle theft automobile, motor vehicle theft truck, motor vehicle theft motorcycle, and motor vehicle theft other (e.g., snowmobiles, all terrain vehicles, motorized farming and industrial vehicles).” (BC Ministry of Public Safety and Solicitor General Policing and Security Branch, 2022) Figure 5.2-5 presents trends in vehicle theft offences from 2018 to 2022.



Source: Statistics Canada, 2023a

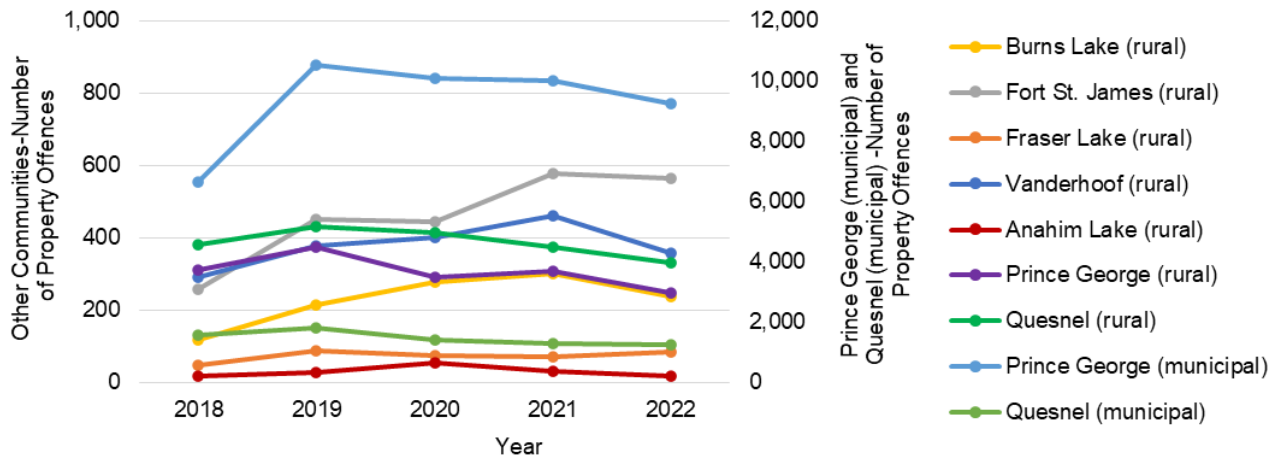
**Figure 5.2-5: Number of Vehicle Theft Offences by RCMP Detachment (2018-2022)**

The number of vehicle theft offences decreased in most primary communities except for Fraser Lake, Fort St. James, and Quesnel (municipal) from 2021 to 2022. In Quesnel (rural) the number of vehicle theft offences remained the same over this period. There are no identifiable trends for the period of 2018 to 2022, with the number of offences fluctuating in trend direction (increases or decreases in number of offences) year to year for all primary communities.

### Number of Property Offences

Property offences are defined by the BC Ministry of Public Safety and Solicitor General Policing and Security Branch as follows: “offences of breaking and entering, theft, motor vehicle theft, possession of stolen property, trafficking in stolen property, fraud, mischief, identity theft or fraud, arson, and altering/removing/destroying a vehicle identification number” (BC Ministry of Public Safety and Solicitor General Policing and Security Branch, 2022). Figure 5.2-6 presents trends in property offences from 2018 to 2022.

The number of property offences decreased in every RCMP detachment from 2021 to 2022, except for Fraser Lake, ranging from a decrease of 0.9% in Quesnel (municipal) (12 offences) to a decrease of 36.7% in Anahim Lake (11 offences) and 22.1% in Vanderhoof (102 offences). In Fraser Lake, the number of property offences increased by 16.9% year-over-year (12 offences). Generally, trends in the number of property offences for the period of 2018 to 2022 are not distinguishable, with the number of offences fluctuating year to year.

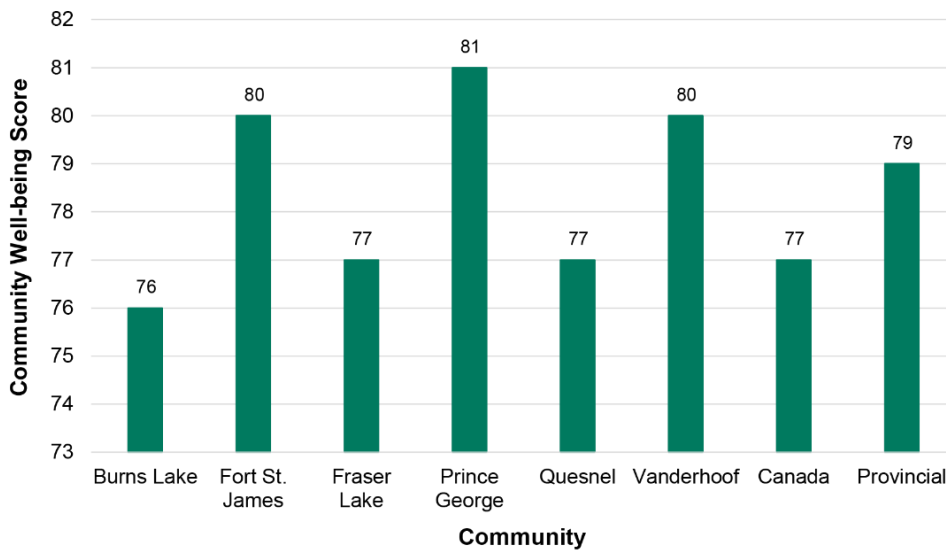


Source: Source: Statistics Canada, 2023a

**Figure 5.2-6: Number of Property Offences by RCMP Detachment (2018-2022)**

### Community Well-Being Index

The CWB Index scores for primary communities, based on data from the 2016<sup>17</sup> census, were generally consistent for non-reserve primary communities, with a range of 76 (Burns Lake) to 81 (Prince George) (Figure 5.2-7 and Figure 5.2-8). All non-reserve primary communities received the highest scores in housing, followed by labour and income, and the lowest scores in education. For First Nation reserves with available CWB data, there was a wider range in CWB scores of 48 in Squinas 2 to 68 in Nautley 1 (5.2-9).

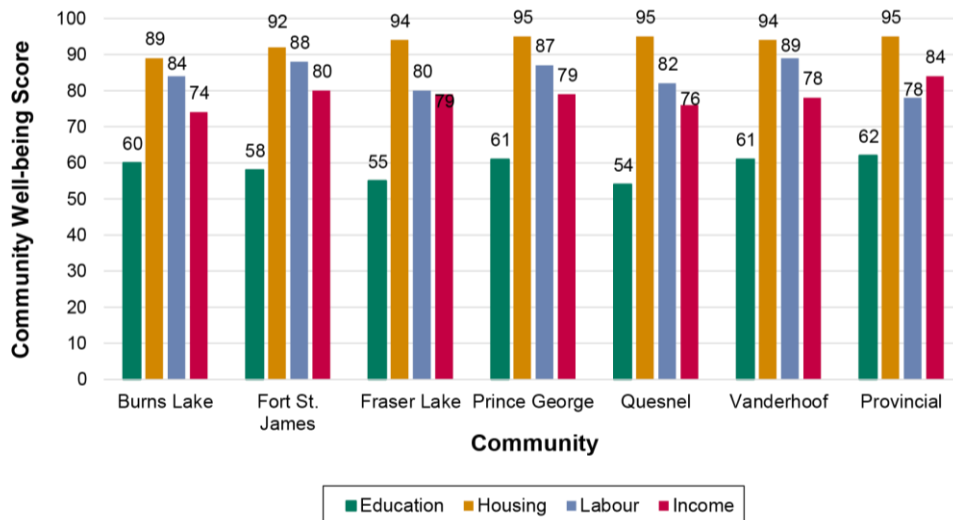


Source: ISC, 2019

Note: No CWB score was available for Anahim Lake.

**Figure 5.2-7: Community Well-being Index Score by Non-Reserve Community (2016)**

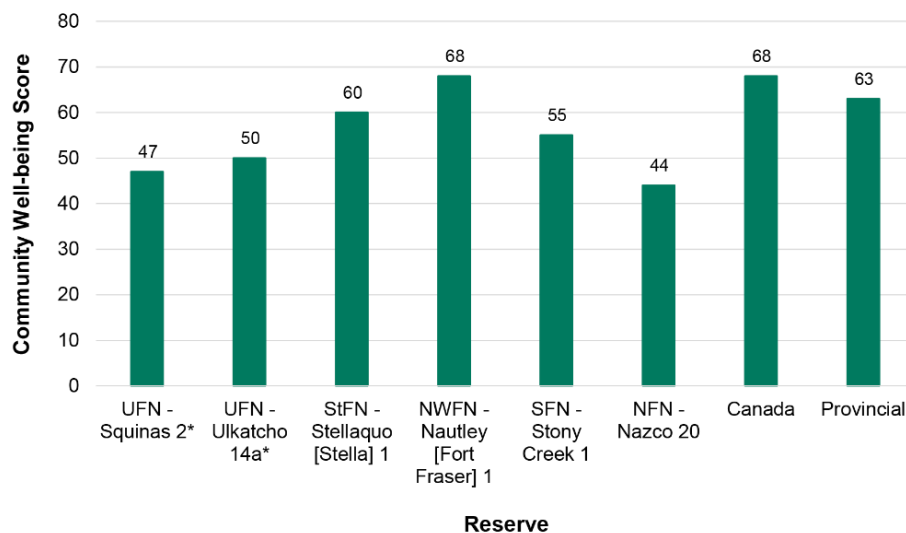
<sup>17</sup> More recent data was not available at the time of writing. Updated data will be included in future reports; however, 2016 data can still provide context and help identify trends.



Source: ISC, 2019

Note: No CWB scores were available for Anahim Lake.

**Figure 5.2-8: Community Well-being Education, Housing, Labour, and Income Scores by Non-Reserve Community (2016)**



Source: ISCa, 2019

Notes: No LDN reserves had scores listed. For those reserves not listed, no score was available. Reserves may not appear in the public 2016 CWB index database due to having populations fewer than 65 people, data quality issues, or the reserve not being fully enumerated in the 2016 Census.

**Figure 5.2-9: Community Well-being Score by Reserve (2016)**

### Feedback and Comments, and Discussion by CLC Members Pertaining to Mental Health Changes in Primary Communities

No feedback or comments were received or discussed by CLC members pertaining to mental health changes in primary communities during Early Works.

Data relevancy for all communities to be reviewed as needed for future CEMMP updates and/or CEMMP-Rs.

### 5.2.1.5 Change in Family Relationships of Mine Employees in Local Communities due to Work Rotation/Schedule

#### Number of Employees and Family Members that Use Counselling Services at the Mine (EAP)

Data for this indicator is discussed in Section 4.4.2.1.

#### Statistics on Most Accessed EAP Services

Data for this indicator is discussed in Section 5.2.1.2.

#### Number of Employees that Resign Due to Family Reasons

Two Mine employees indicated “family reasons” as the rationale for their resignation; these resignations occurred during the second half of Early Works (January 1 to March 31, 2023; Table 5.2-2). Both employees were male, and one employee identified as Indigenous. No women resigned for family reasons during Early Works. Family reasons could include challenges in access to childcare, wanting to spend more time around family, or other reasons.

Data regarding Mine resignations was not collected for the first half of Early Works (September-December 2022); data presented represents resignations from January 1 to March 31, 2023, for BW Gold employees (i.e., no contractor resignations included).

**Table 5.2-2: Number of Employees Resigned due to Family Reasons (January 1 to March 31, 2023)**

Employee Demographic	Number of Family-Related Resignations
<b>Total</b>	<b>2</b>
Male	2
Indigenous Male	1
Female	0
Indigenous Female	0

Source: Blackwater Gold, 2023

#### Mine Turnover Rates

Table 5.2-3 presents Mine turnover rates by percentage, disaggregated by gender, Indigenous identity, and self-identification as an ethnic minority, or immigrant. Mine turnover rates only represent BW Gold employee turnover, and do not include contractor employee turnover. Male employees, which represented the predominant group of employees by gender, had the highest turnover rate of any demographic (86%), followed by Indigenous men (42%). Female employees had a turnover rate of 14% overall, while Indigenous women had a turnover rate of 0%. Employees identifying as a visible minority<sup>18</sup> or immigrant had a turnover rate of 14% (representing one employee). Turnover rate is based on workforce population, not total population.

Data regarding Mine turnover was not collected for the first half of Early Works (September-December 2022); data presented represents turnover from January 1 to March 31, 2023.

<sup>18</sup> When asked if Mine employees identified as a visible minority, they are also asked which of the following options best describes their visible minority group or origin: Black; Chinese; Filipino; Japanese; Korean; South Asian/East Indian; Southeast Asian; Non-White West Asian, North African or Arab; Non-White Latin American; Person of Mixed Origin; and Other Visible Minority Group. Data regarding the specific visible minority group was not available for this indicator.

**Table 5.2-3: Mine Turnover Rates (January 1 to March 31, 2023)**

Employee Demographic	Percentage of Employees
Male	86%
Indigenous Male	42%
Female	14%
Indigenous Female	0%
Visible minority, immigrant	14%

Source: Blackwater Gold, 2023

### 5.2.1.6 Change in Employment and Income

Indicators for this effect will be monitored and reported during the closure phase.

## 5.3 Interpretation

Mine workforce during Early Works included 16 (34.0% of 47 BW Gold workers hired from primary communities)<sup>19</sup> who self-identified as Indigenous, and 12 (25.5% of 47) female workers. Rates of employment of Indigenous and female workers were notably higher than national averages. To compare, in 2022 in Canada, Indigenous population represented 6.3% of employment in agriculture, natural resources, and utilities, with this category including mining industry (Statistics Canada, 2023b)<sup>20</sup>. Also in 2022, 18.8% of mining, quarrying, and oil and gas extraction workers in Canada were female, with females representing 16.7% of this industry’s workforce in BC for the same year (Statistics Canada, 2023c).

Male and non-Indigenous workers at the Mine earned higher income compared to other subpopulations. This salary discrepancy may be due to the type of positions, certifications, education, training, tenure, or experience. Access to education and training are influenced by structural factors (e.g., systemic discrimination, under-resourcing of reserve communities). Indigenous peoples across Canada (including BC) are more likely to live in poverty and have lower incomes than the non-Indigenous population overall in part due to structural factors, colonial policies of displacement, suppression of self-governance, and assimilation (Brittain & Blackstock, 2015). As such, it is possible that the available national and provincial workforce is influenced by systemic factors. BW Gold aims to support Indigenous hiring and employees through a variety of mitigation measures outlined in Appendix A. Mining has been a largely male-dominant workforce, and women employees may face discrimination and/or harassment associated with employment, education, and training, as well as a lack of female role models and mentors in the industry, among other factors (MIHR, 2016). This context may influence the pool of qualified female candidates and/or their appetite for higher-paying positions with the Mine including rotation/shift work.

In consideration of the above, there is no evidence that the Mine increased the level of inequality in primary communities as a result of Mine employment and training during Early Works. Further, the statistics on Mine EAP use do not point to a negative income effect on spending decisions of employees from local communities.

Regarding changes in crime, the most recent crime data is available for 2022, not covering the entire Early Works period. Drug offences and property offences generally trended downward, with vehicle theft

<sup>19</sup> Disaggregated data by female and Indigenous employees on Project workers hired from outside of the study area was not available. Disaggregated data from contractors was incomplete, and therefore, omitted from these results.

<sup>20</sup> Mining specific category was not available.

offences remaining within previously recorded limits. As such, it cannot be concluded that the Mine impacted the sense of security in primary communities due to the Mine's mobile or transient workforce engaging in socially disruptive activities, and the related prediction is not supported.

Finally, BW Gold has not received any feedback or comments on mental health changes in primary communities from the public or the CLC. While high turnover rates during Early Works are partially attributed to the nature of contract and construction work, high turnover for men may be a result disproportionate hiring of men for shorter-term construction jobs compared to female workers, resulting in higher turnover rates. When overall turnover is compared to family-related resignations, there were low numbers of resignations, indicating that the majority of turnover was not likely related to family and community well-being. The available information makes it challenging to determine if Early Works period resulted in changes to family relationships of Mine employees in local communities due to work rotation or schedule. The availability of data will be considered for future reporting.

## 5.4 Summary of Mitigation Measures

BW Gold has a variety of programs, initiatives, and policies in place to support employees and their families, as well as communities in which they operate. These include efforts to prevent harassment, providing a safe work environment, and reducing the burden on community services in primary communities. The specific measures include:

- Focusing recruitment and hiring efforts on communities in the LSA and RSA.
- Depositing workers' salaries in their bank accounts and providing access to financial literacy training (through the EAP).
- Providing an EAP (including counselling services).
- Offering reasonably short shift rotations to minimize separation from family (14 days on and 14 off) and allow flexibility to accommodate hard to fill positions.
- Ensuring phone and Internet services are available to enable employees to communicate with their families.
- Implementing a hiring strategy that will focus on training workers from diverse groups.
- Working with Indigenous Groups to identify and remove barriers to employment and training.
- Providing a self-contained camp to accommodate workers and minimize the influx of workers to communities.
- Providing Indigenous cultural awareness training to all new employees.
- Requiring BW Gold managers/supervisor to receive cultural awareness training that also teaches them how to address and resolve issues if they arise.
- Providing micro-aggression training to all new employees, and on an as-needed basis to promote a harassment-free workplace.
- Engaging with stakeholders to identify community needs and priorities for social investment that focus on respecting community values.
- Collaborating and partnering with stakeholders to mitigate and avoid social impacts.
- Implementing a feedback mechanism.

Refer to Appendix A for a detailed description of mitigation measures.



## 6.0 Engagement and Feedback

### 6.1 Engagement with Aboriginal Groups, Land Users and Tenure Holders Data

BW Gold has engaged with Indigenous groups, the public and stakeholders during Early Works. This included publishing a quarterly newsletter which is also available on the BW Gold website. Quarterly newsletters have been prepared since October 2022.

The following engagements have been undertaken during Early Works:

- Providing notification letters to tenure holders regarding Mine activities and requests to access lands and field work occurring in and around tenure holder certificate areas.
- Providing updates and notifications to CLC members and holding CLC Meetings (November 2, 2022; December 7, 2022; and February 15, 2023).
- Providing Mine updates to community groups and individuals (e.g., Vanderhoof Chamber of Commerce).
- Attending community events and open houses (e.g., CNC Spring Open House).
- Facilitating Access Management Working Group meetings (November 21, 2022, and February 15, 2023).
- Responding to inquiries, comments and questions, received through office visits (Vanderhoof office), community events, phone calls and emails.

Common themes of engagement during Early Works included business and employment opportunities and the transmission line construction schedule.

### 6.2 Community Feedback Mechanism Summary

#### 6.2.1 Promotion of the Community Feedback Mechanism

BW Gold has promoted the Community Feedback Mechanism to Indigenous groups, the public and stakeholders. The Community Feedback Mechanism was promoted throughout Early Works as follows:

Mechanism	Details (Date)
Newspapers	Burns Lake News – Sept. 28, 2022 Quesnel & District Observer – Sept. 28, 2022 Stuart Nechako Advertiser – Sept. 29, 2022
CLC Meetings	Presented at the Nov. 2, 2022, Meeting
Newsletter	Community Feedback Mechanism highlighted in October 2022 newsletters
Presented to Staff	3 Presentation Sessions internally fall 2022
Posters	Displayed and handed out at the Vanderhoof office as well as displayed and handed out at community events we attend
Slides/Presentations	Re-occurring overview slide used in multiple community presentations

Mechanism	Details (Date)
Email Notification	Sent on Sept. 29, 2022, to e-subscriber list of ~ 4000 subscribers
Website <sup>21</sup>	Community Feedback Mechanism page added to website fall of 2022

## 6.2.2 Summary of Input Received Via the Community Feedback Mechanism

During Early Works, 11 complaints were received through the Community Feedback Mechanism. The complaints focused on the transmission line routing, traffic, and vehicle use by Mine employees. Complaints were primarily received from or focused on Mine activities in Vanderhoof or the Saik'uz reserve. All concerns were resolved through the following avenues:

- Following up on traffic complaints to obtain date, time, description of vehicles, license plates, and any other relevant information to address complaints.
- Providing physical and digital copies of Mine management plans.
- Providing Mine information (e.g., rationale and process of the transmission line route selection).
- Communication with relevant third parties regarding concerns, and where applicable, redirection of complaint to the relevant third party.

BW Gold notified site personnel, BW Gold employees and contractors, where relevant, about received concerns and complaints, and communicated appropriate corrective actions. For example, road and driving protocols were reviewed with staff and contractors.

There are no outstanding or unresolved complaints from Early Works.

## 6.3 Summary of Mitigation Measures

BW Gold has implemented measures to mitigate the potential change to the experience of land users in the vicinity of the Mine and along transportation routes, described in the CEMMP and Noise and Vibration Effects Monitoring and Mitigation Plan (EAC Condition 21).

The following mitigations were put in place during Early Works to communicate Mine activities to land users in advance:

- Notification (e.g., by letter, phone call or text message) to registered tenure holders, Aboriginal Groups and stakeholders who have registered on the Mine's email-or-SMS system.
- Provision of a schedule and maps where Mine activities will take place disturbing land or reducing enjoyment of land use on the Mine's website (EAC Condition 42), and will be posted at least 30 days prior to the planned activities.
- Promotion and implementation of the Community Feedback Mechanism.

Refer to Appendix A for a detailed description of mitigation measures.

<sup>21</sup> Establishment of a Mine website was a requirement of EAC Condition 42.

## 7.0 Conclusions and Recommendations

The following section provides conclusions and recommendations based on the completion of the first CEMMP-R.

### 7.1 Conclusion

Section 13 of the CEMMP requires an evaluation and review of the CEMMP following the submission of the first CEMMP Report (CEMMP-R) and annually thereafter, or in response to adaptive management triggers.

During Early Works, BW Gold has effectively managed and mitigated impacts to primary communities, in accordance with the approaches outlined in the CEMMP.

This conclusion is based on the results of the CEMMP-R, and also considers the relatively short period of time of Early Works (i.e., 6 months), a limited workforce, and limited information and data during this period of time (Section 2.4).

### 7.2 Recommendations

The following recommendations are made in consideration of the preparation of this first CEMMP-R, some of which may result in a review of the CEMMP, in collaboration with the CLC and regulators. Recommendations include:

- Increasing collaboration with social services (e.g., NH, emergency responders) and the Employment Assistance Program provider to refine the data to support monitoring Mine-related impacts.
- Conducting employee exit interviews, including to document information about any influence the Mine rotation has in regard to departing employment at BW Gold.
- Continuing to promote the community feedback mechanism.
- Reviewing data relevancy and availability in all sections for all communities for future CEMMP updates and/or CEMMP-Rs.

## 8.0 References

Definitions of acronyms and abbreviations used in this reference list can be found in the Acronyms and Abbreviations section.

### Legislation

*Cannabis Act*, SC 2018, c 16.

*Controlled Drugs and Substances Act*, SC 1996, c 19.

*Environmental Assessment Act*, SBC 2002, c 43.

*Freedom of Information and Protection of Privacy Act*, RSBC 1996, c 165.

*Indian Act*, RSC 1985, c I-5.

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## Appendix A – Mitigation Measures

Mitigation Measure	Related Categories	Early Works Practices
Focus recruitment and hiring efforts on communities in the LSA and RSA	Population and Demographics Regional and Local Services: <ul style="list-style-type: none"> <li>• Social Services</li> <li>• Education Services</li> <li>• Protective Services</li> </ul>	BW Gold has advertised jobs to primary communities via local radio, local WorkBC offices, social media, LinkedIn and Indeed, First Nations Employment Coordinators for primary communities, the BW Gold website, and in the BW Gold community newsletter. BW Gold participated in 55 community meetings and events (including job fairs) to promote employment from primary communities throughout Early Works (see Section 4.1.2). A weekly email with updated open positions is sent to CLC members who subscribe to the email distribution list, local WorkBC offices, Indigenous communities, CNC, and other employment agencies. Open positions are also promoted through EI offices and First Nations Associations. The BW Gold Vanderhoof Community Office provides information regarding career opportunities and has received many inquiries on employment opportunities via phone, email, and in-person visits.
Provide self-contained camp to accommodate workers	Population and Demographics Regional and Local Services: <ul style="list-style-type: none"> <li>• Education Services</li> <li>• Health Services</li> <li>• Protective Services</li> </ul> Family and Community Well-being	BW Gold provides a self-contained camp to accommodate workers. BW Gold submitted an annual report to NH in March 2023 demonstrating compliance with EAC Condition #40 (Health and Medical Services Plan) and the Health and Medical Services Plan Best Management Guide for Industrial Camps, including the operation of the self-contained camp. This annual report was reviewed by NH, who confirmed that the performance of the site (particularly the medical services) was consistent with the guidance outlined by NH.
Provide incentives and inducements for employees and management team to reside in an Affected Community	Population and Demographics	BW Gold offers relocation assistance to prospective employees from non-primary communities. This assistance includes financial assistance with moving costs, storage, temporary accommodations, and hiring movers. Between January 1 and December 31, 2022, one employee received travel allowance and assistance to relocate from Kelowna to Prince George.
Promote harassment-free workplace to its employees and maintain zero-tolerance alcohol and drug policy on-site and in camp at any time; participation in training will be tracked; violations will not be tolerated	Regional and Local Services: <ul style="list-style-type: none"> <li>• Social Services</li> <li>• Health Services</li> <li>• Protective Services</li> </ul>	Employee induction and orientation includes Blackwater's Behavioral Standards, Respectful Workplace Policy, and Respectful Workplace training. Respectful Workplace training includes description of prohibited conduct, such as discrimination, bullying, and harassment, as well as retaliation and the process of incident reporting. BW Gold's Fitness for Duty Policy outlines that no individual may "possess or consume any drug(s) or alcohol in any manner while on the Company property or conducting BW Gold business without the prior authorization of the Company" as well as other prohibitions related to "Reporting to work or being at work while impaired or in an unfit condition due to the effects of any drug(s) or alcohol".

Mitigation Measure	Related Categories	Early Works Practices
Provide an Employee Assistance Program	Regional and Local Services: <ul style="list-style-type: none"> <li>• Social Services</li> <li>• Health Services</li> </ul> Family and Community Well-being	Blackwater Gold provides an EAP to all employees, which was provided by Sun Life Lumino Health during Early Works. The EAP included a variety of services and programs related to physical and mental health, including the following services: vision and hearing, food and nutrition, medical products and resources, pet health, and mental wellness. See Section 5.2 for levels of use of the EAP during Early Works.
Implement measures to facilitate a respectful workplace and safety and security of employees; focus on multi-cultural workforce considerations and provide Aboriginal cultural awareness training delivered to all new employees (e.g., training completed during first week of employment and ongoing through crew talks)	Regional and Local Services: Social Services Family and Community Well-being	Cultural awareness training is provided to all new employees during their first week of employment. Training topics include traditional territories and mine infrastructure, First Nations Agreements, presentation of a map of overlapping traditional territories, nation groupings, Southern Dakelh nations and Carrier Sekani First Nations, contemporary and traditional governance, the <i>Indian Act</i> (1876), residential schools, the Sixties Scoop, Truth and Reconciliation Commission, Missing and Murdered Indigenous Women and Girls, the Highway of Tears, Moose Hide Campaign, and National Day for Truth and Reconciliation. Orientation for employees includes Blackwater's Behavioral Standards, Respectful Workplace Policy, and Respectful Workplace. This includes information on prohibited conduct, such as discrimination, bullying, and harassment, as well as retaliation and the process of incident reporting.
Work with local service providers and communities to develop a Mine Closure Plan that identifies strategies and actions to help minimize the potential adverse effects of closing the mine	Regional and Local Services: <ul style="list-style-type: none"> <li>• Social Services</li> <li>• Education Services</li> <li>• Health Services</li> <li>• Protective Services</li> </ul> Family and Community Well-being	No meetings related to closure planning have taken place to date. Meetings to plan for closure will take place in the last few years of Mine operation.
Work with training institutions to support or provide training programs	Regional and Local Services: Education Services	BW Gold has met with CNC to discuss current and future programming and opportunities for collaboration and partnerships do deliver training in mining. BW Gold has met with UNBC multiple times to discuss opportunities for Artemis staff to visit classes, as well as the creation of scholarships and bursaries.
Support training of students from diverse groups	Regional and Local Services: Education Services	BW Gold has partnered with the Mining Industry HR Council to support the delivery of training programs for First Nations, women, new Canadians, and youth.
Provide scholarships to encourage high school graduation	Regional and Local Services: Education Services	No scholarships were available during Early Works. Discussions are ongoing regarding future scholarships.



Mitigation Measure	Related Categories	Early Works Practices
Provide on-site nurse and emergency services, and develop and implement a medical protocol to meet the workforce's urgent and non-urgent health care needs	Regional and Local Services: Health Services	<p>BW Gold's medical protocol is outlined in the Health Services Management Plan, which substantially met the intent of the "Health and Medical Services Plan Best Management Guide for Industrial Camps" and will be revised as per the EAC and NH Authority requirements. Under this plan, medical care available on-site is primarily provided at the on-site medical facility, staffed with a nurse. The on-site medical facility hosts consistent walk-in clinic hours for occupational and non-occupational illness and injuries, as well as mental health assistance. On October 1, 2022, International SOS (ISOS) was assigned as the Medical Services Provider (MSP) at the site. Their comprehensive coverage comprises two full-time, on-site Registered Nurses (RNs). These RNs work under the supervision of a Nurse Practitioner, guided by a Medical Director (Physician). RNs scope of work allowed for urgent and non-urgent health care needs, i.e., administering medications and developing health and wellness programs at site. For urgent needs, the site also has a qualified OFA 3 personnel, a Mine Emergency Rescue Team, and 30 employees and contractors with first aid training (although not all 30 are always on-site).</p>
Require a medical exam and a drug test for all new employees; random drug testing may also be conducted on site, as required.	Regional and Local Services: Health Services	<p>As part of the hiring process, applicants are required to do a medical fitness test and a drug and alcohol test. These tests are required after first interviews are conducted and a candidate has moved forward to the next step for possible hiring. During interviews, candidates are provided with information on the screening process and timeline for hiring. Drug testing may also be conducted post-incident or based on "reasonable cause" that an employee has violated the Fitness for Duty Policy.</p>
Provide at the site health and medical equipment and personnel to meet the requirements of the "Health, Safety and Reclamation Code for Mines in British Columbia" and WorkSafe BC	Regional and Local Services: Health Services	<p>BW Gold engaged a health and medical services provider, experienced in providing health and medical services at remote industrial camps. The facilities were regularly inspected by BW Gold's staff as well as external agencies to ensure compliance with the required standards and in accordance with the best industry practice. All reported incidents and hazards were investigated to learn lessons and prevent reoccurrence. In the case of emergencies, the emergency response and preparedness were also reviewed to identify and improve response in the future. These practices and their management by suitably qualified people helped BW Gold in meeting and exceeding the threshold set by the <i>Health, Safety and Reclamation Code for Mines In British Columbia</i> and WorkSafe BC.</p>

Mitigation Measure	Related Categories	Early Works Practices
Work with local service providers to address changes in demand for health services	Regional and Local Services: Health Services	BW Gold has developed a strong and productive partnership with NH, fostering open communication and collaboration to facilitate the development of innovative programs on site. This positive dialogue has paved the way for future cooperation and progress between the two organizations.
Work with NH, local fire departments, RCMP, and BC Ambulance to ensure that the appropriate information on the changes in area transportation volumes, mine operations, and the change to the local population are considered	Regional and Local Services: Protective Services	BW Gold has put in place a mutual aid agreement with the Vanderhoof Fire Department, which specifies that the Vanderhoof Fire Department agrees to conduct vehicle extrication on the Kluskus FSR and area in conjunction with the BW Gold Emergency Response Team. This agreement specifies that Vanderhoof Fire Rescue Unit R11 will support this agreement. BW Gold has also engaged with both the Vanderhoof and Quesnel RCMP detachments. BW Gold has also engaged with NH on a variety of topics, including transportation.
Provide firefighting equipment and trained personnel to meet all onsite fire and rescue needs	Regional and Local Services: Protective Services	A firetruck and fire extinguishers were available on site, and a mutual aid agreement with the Vanderhoof Fire Department was in place for rescue on the Kluskus FSR. The Mine rescue team on-site received continuous training for firefighting, vehicle extrication, mine rescue procedures and protocols, medical assessment and patient care (EMR, OFA 3, FA), and high angle and confined space rescue.
Provide at the Mine site trained mine rescue personnel and mine rescue equipment as well as onsite security	Regional and Local Services: Protective Services	<p>A mine rescue team was in place and trained for firefighting, vehicle extrication, mine rescue procedures and protocols, medical assessment and patient care (EMR, OFA 3, FA), and high angle and confined space rescue.</p> <p>Mine rescue equipment includes a firetruck and an ambulance on-site. First aid kits, spill kits, and radios are in all BW Gold and contractor vehicles. AED's and fire extinguishers are located throughout the site. A medi-helicopter is available with a 1.75 hour time frame during daylight hours. There is a mutual aid agreement with the Vanderhoof Fire Department in place for rescue on the Kluskus FSR.</p> <p>During Early Works, mine security was provided by Paladin Security, and was in place 24/7.</p>
Deposit workers' salaries in their bank accounts and provide access to financial literacy training (Employee Assistance Program)	Family and Community Well-being	BW Gold deposits workers' salaries directly into their bank accounts. Financial literacy training was provided to employees through the Lumino Health Virtual Care EAP.

Mitigation Measure	Related Categories	Early Works Practices
Offer reasonably short shift rotations to minimize separation from family (14 days on and 14 off) and allow flexibility to accommodate hard to fill positions	Family and Community Well-being	BW Gold offers hourly workers a fourteen days-on, fourteen days-off shift rotation to allow employees to spend time at home with their family, friends, and community. Other staff and management positions may vary in schedule pending job requirements.
Ensure phone and Internet services are available to enable employees to communicate with their families	Family and Community Well-being	There is a cell tower located at the mine site, which is available for all employees to use with their personal cell phones. Free Wi-Fi is provided for all employees at the mine site for personal use. Employees without their own phone, computer or tablet may reach out to their supervisor or Human Resources for support in contacting family or friends.
Implement a hiring strategy that will focus on training workers from diverse groups	Family and Community Well-being	BW Gold implements targeted recruitment of diverse groups, including Indigenous people, women, and mature workers. All job postings include the following statement to encourage applications from diverse groups: "We are an equal opportunity employer committed to equal employment opportunity without discrimination or harassment on the basis of race, religion, national origin, status, age, sex, sexual orientation, gender identity or expression, marital or domestic/civil partnership status, or any other basis protected by law. We strongly encourage applications from Indigenous Peoples. Members of Indigenous communities should clearly identify their status on their resume."
Work with Aboriginal Groups to identify and remove barriers to employment and training	Family and Community Well-being	BW Gold meets regularly with representatives from Aboriginal Groups' education, training, and employment departments. These meetings have helped to identify and reduce barriers to employment and training, including but not limited to lack of drivers' licenses, transportation to training and employment, workplace readiness, and location of training sites (i.e., out-of-community).
Require BW Gold managers/supervisor to receive cultural awareness training that also teaches them how to address and resolve issues if they arise	Family and Community Well-being	Training on how to address and resolve issues is provided to managers and supervisors through BW Gold's Respectful Workplace Policy and training provided by HR. Mine employees also receive cultural awareness training.
Provide micro-aggression training to all new employees, and on an as-needed basis to promote harassment-free workplace	Family and Community Well-being	New employee induction and orientation includes information on Blackwater's Behavioral Standards and Respectful Workplace Policy, and Respectful Workplace training is provided. This includes description of prohibited conduct, such as discrimination, bullying, and harassment, as well as retaliation and the process of incident reporting.

Mitigation Measure	Related Categories	Early Works Practices
Engage with stakeholders to identify community needs and priorities for social investment that focus on respecting community values	Family and Community Well-being	The CLC has been in place since 2012 and engagement regarding social investment has been ongoing since then. The CLC meets 4-6 times a year. The Community Leaders meet with Artemis at least twice a year, and additionally share community values and opportunities for social investments as they arise. Several of the Participation Agreements and Management Plans for the Mine have commitments related to social investments and respecting community values. A total of 50 sponsorships were provided to communities during Early Works
Implement feedback mechanism	Family and Community Well-being	<p>The CFM was implemented in September 2022, and was promoted via local newspaper (Burns Lake News – September 28, 2022, Quesnel &amp; District Observer – September 28, 2022, and Stuart Nechako Advertiser – September 29, 2022), the Mine website (CFM page added in fall 2022), the BW Gold October 2022 newsletter, posters (displayed and handed out at the Vanderhoof office and community events), community presentations, and email (sent on September 29, 2022 to approximately 4,000 subscribers). The CFM was also presented to the CLC on November 2, 2022.</p> <p>The CFM was also promoted internally at three presentation sessions in fall 2022, with future presentations for new staff planned. Employees were made aware of the various methods of submitting feedback. The Mine site has an Online Incident System available via a QR Code for any offsite complaints. CFM orientation was also circulated internally to company representatives to understand the investigation process in case they are involved.</p> <p>No feedback on the implementation of the CFM was received during Early Works.</p>
Collaborate and partner with stakeholders to mitigate and avoid social impacts	Family and Community Well-being	<p>Collaboration and partnership with stakeholders to mitigate and avoid social impacts is primarily done through the following avenues:</p> <ul style="list-style-type: none"> <li>• CLC (EAC Condition #37)</li> <li>• Community Leaders Group<sup>22</sup></li> <li>• Access Management Working Group</li> <li>• Environmental Life of Mine Committee (EAC Condition #17)</li> <li>• Participation Agreements</li> </ul>

<sup>22</sup> The Community Leaders Group includes elected officials from the Mine region, including mayors, regional representatives, etc. There are ten (10) members in total.

Mitigation Measure	Related Categories	Early Works Practices
<p>Notification (e.g., by letter, phone call or text message) to registered tenure holders, Aboriginal Groups and stakeholders who have registered on the Mine's email-or-SMS system (EAC Condition 42), at least 30 days before the planned activity. Notification will include description of the extent, duration, and anticipated disturbance, as well as BW Gold contact information in case of questions.</p>	<p>Changes to Land User Experience</p>	<p>Notifications were provided as follows:</p> <ul style="list-style-type: none"> <li>• <b>September 16, 2022:</b> Project Schedule of Activities letter and schedule was sent to Aboriginal groups, tenure holders, and stakeholders via direct mailout and virtually to individuals who have registered on the Mine website to receive this information (as per DS Conditions 6.6 and 6.7).</li> <li>• <b>September 29, 2022:</b> An invitation to the Access Management Working Group (to be held on November 21, 2022) was sent via direct mailout to local regulators, Aboriginal Groups, and tenure holders along the transmission line.</li> <li>• <b>Various letter notifications:</b> Between September 2022 and March 31, 2023, BW Gold sent letters and maps to affected tenure holders (including for primary guide outfitters, range tenures, traplines, forestry, utilities, mineral, and private land access) to provide notification for upcoming field surveys. Examples include notification of fish and wetland surveys and Occupation Licence to Cut application along the transmission line.</li> </ul>
<p>Provision of a schedule and maps where Mine activities will take place disturbing land or reducing enjoyment of land use on the Mine's website (EAC Condition 42), and will be posted at least 30 days prior to the planned activities.</p>	<p>Changes to Land User Experience</p>	<p>Notifications were provided as follows:</p> <ul style="list-style-type: none"> <li>• <b>September 19, 2022:</b> Project Schedule of Activities (EA DS Conditions 6.6 and 6.7) letter and schedule was posted on the Mine website.</li> <li>• <b>October 2022 and January 2023:</b> Newsletters were posted to the Mine website providing updates on Mine status and activities.</li> <li>• <b>November 2022:</b> Document Submission Plan Version 7.0 was uploaded to the Mine Website.</li> <li>• <b>Various letter notifications:</b> Between September 2022 and March 31, 2023, BW Gold sent letters and maps to affected tenure holders (including for primary guide outfitters, range tenures, traplines, forestry, utilities, mineral, and private land access) to provide notification for upcoming field surveys. Examples include notification of fish and wetland surveys and Occupation Licence to Cut application along the transmission line.</li> </ul>