

# **2017 Socio-Economic Monitoring Report for the Mary River Project**

**March 31, 2018**

**Prepared For:  
Baffinland Iron Mines Corporation  
2275 Upper Middle Road East, Suite 300  
Oakville, Ontario  
L6H 0C3**

**Jason Prno**  
CONSULTING SERVICES LTD

420 George Street, Suite 310  
Peterborough, Ontario • K9H 3R5  
(519) 983-8483 • [www.jpchl.com](http://www.jpchl.com)

**Report Contributors**

This report has been prepared by Jason Prno (PhD) of Jason Prno Consulting Services Ltd. on behalf of Baffinland Iron Mines Corporation. This report has been reviewed by Baffinland Iron Mines Corporation and may contain various company statements.

**Suggested Citation**

Jason Prno Consulting Services Ltd. 2018. *2017 Socio-Economic Monitoring Report for the Mary River Project*. Report prepared for Baffinland Iron Mines Corporation. March 31, 2018.

## EXECUTIVE SUMMARY

This report has assessed the socio-economic performance of the Mary River Project in 2017, as well as Baffinland's compliance with various Project Certificate terms and conditions. Performance was assessed using socio-economic indicators and information for several Valued Socio-Economic Components (VSECs) included in the Final Environmental Impact Statement (FEIS):

- Population demographics
- Education and training
- Livelihood and employment
- Contracting and business opportunities
- Human health and well-being
- Community infrastructure and public services
- Resources and land use
- Economic development and self-reliance
- Benefits, royalty, and taxation

The information presented in this report supports many of the FEIS predictions for these VSECs and identifies positive effects the Project has had. For example, approximately 2.38 million hours of Project labour were performed by Baffinland employees and contractors in Nunavut in 2017, which was equal to approximately 1,181 full-time equivalent positions (FTEs). Of this total, 313,068 hours were worked by residents of the LSA, representing approximately 155 FTEs. In addition, approximately \$7.06 million in payroll was provided to Baffinland LSA employees (not including contractors) and \$387.2 million was spent on procurement with Inuit-owned businesses and joint ventures in 2017.

Employment in the LSA is one area where Project activities didn't fully match FEIS predictions in 2017, as LSA employment hours in 2017 were somewhat lower than originally predicted. Likewise, there were several Inuit employee departures in 2017. Baffinland continues to take positive steps to address the issue of Inuit employment and recently finalized its Inuit Human Resources Strategy (IHRS) and Inuit Procurement and Contracting Strategy (IPCS) with the QIA. These documents describe goals and initiatives that will be used to increase Inuit employment and contracting at the Project over time.

Furthermore, Baffinland and the QIA are partners in the \$19 million Qikiqtani Skills and Training for Employment Partnership (Q-STEP) training program, which has been designed to provide Inuit with skills and qualifications to meet the employment needs of the Mary River Project as well as other employment opportunities in the region. The new Baffinland Apprenticeship Program, development of a labour pool of multi-skilled Inuit Heavy Equipment Operators, and other actions to meet the Minimum Inuit Employment Goal (MIEG) established with the QIA should also assist with increasing LSA employment over time. However, additional monitoring will be necessary to track the success of these and other Baffinland Inuit employment programs. Baffinland will also continue to track employee turnover causes and outcomes, moving forward.

Where appropriate, trends have been described for indicators assessed in this report. These trends (i.e. pre-development, post-development, and since the previous year) demonstrate whether an indicator has exhibited change and describes the direction of that change. Trend analyses can be useful for assessing potential Project influences on an indicator. The table that follows summarizes the information and trends observed in 2017 relative to previous years. In some cases, additional data and

monitoring will be necessary before the FEIS predictions presented in this report can be fully verified. In others, direct correlations between the Project and data trends were either unable to be identified or were unclear. The process of socio-economic monitoring often requires many years of data to effectively discern trends and causality. Even then, various factors may be found to influence causality and some of these may not be easy to measure. Successful socio-economic monitoring for the Project will require appropriate long-term data, the regular input of all Project stakeholders, and a focus on continuous improvement.

2017 Socio-Economic Monitoring Reporting Summary for Baffinland Iron Mines Corporation’s Mary River Project

VSEC	Indicator(s)	Pre-Development Trend	Post-Development Trend	Trend Since Previous Year	Scale	Summary
Population Demographics	Known in-migrations of non-Inuit Project employees and contractors	Not applicable	No change	No change	North Baffin LSA	Since 2015, a net of zero known non-Inuit employees/contractors have in-migrated to the North Baffin LSA
	In-migration of non-Inuit to the North Baffin LSA	Not available	Not available	Not available	North Baffin LSA	Limited data currently available. However, the percentage of Inuit vs. non-Inuit residents in the North Baffin LSA has remained relatively constant.
	Known out-migrations of Inuit Project employees and contractors	Not applicable	↑	No change	North Baffin LSA	Since 2015, a net of five known Inuit employees/contractors have out-migrated from the North Baffin LSA
	Out-migration of Inuit from the North Baffin LSA	Not available	Not available	Not available	North Baffin LSA	Limited data currently available. However, the percentage of Inuit vs. non-Inuit residents in the North Baffin LSA has remained relatively constant.
	Population estimates	↑ ↑	↑ ↑	↑ ↑	North Baffin LSA Iqaluit	Population numbers continue to increase across the territory
	Nunavut net migration	↑	↓	↑	Territory	An decreasing post-development trend in Nunavut annual net migration is currently occurring
	Employee and contractor changes of address, housing status, and migration intentions	Not applicable	Not applicable	Not applicable	Project	22.8% of the 2018 Inuit Employee Survey respondents housing situation changed in the past 12 months. 9.9% moved to a different community in the past 12 months but no one moved into or out of the North Baffin LSA. 17.7% intend to move to a different community in the next 12 months. 8.8% intend to move away from the North Baffin LSA. No individuals intend to move into the North Baffin LSA. 60.7% of respondents currently live in public housing.
	Employee and contractor origin	Not applicable	Not applicable	Not applicable	Project	An average of 1,572 individuals worked at the Project in 2017, of which 219 were Inuit. Most the Project’s Inuit employees and contractors were based in LSA communities. Most of the Project’s non-Inuit employees and contractors were based in Canadian locations outside of Nunavut.
Education and Training	Participation in pre-employment training	Not applicable	↑	No change (not offered 2014-2017)	Project	Since 2012, there have been 277 graduates of Baffinland pre-employment training programs. A new Work Ready program will be delivered in local communities beginning in 2018.
	Number of secondary school graduates	↑ ↑	↓ ↓	↑ ↓	North Baffin LSA Iqaluit	A decreasing post-development trend in graduation numbers is apparent in the LSA, which was not evident prior to the Project
	Secondary school graduation rate	↑	↓	↑	Region	A decreasing post-development trend in graduation rates is apparent in the region, which was not evident prior to the Project
	Investments in school-based initiatives	Not applicable	↑	No change	Project	Investments continued to be made in school-based initiatives in 2017. These included laptop donations to secondary school graduates and the launch of a community literacy initiative.
	Hours of training completed by Inuit employees and contractors	Not applicable	↑	↑	Project	Inuit received 4,024 hours of training in 2017 and a total of 15,867 training hours since Project development
	Types of training provided to Inuit employees and contractors	Not applicable	↑	No change	Project	Inuit continue to receive various forms of Project-related training
	Apprenticeships and other opportunities	Not applicable	↑	No change	Project	One Inuit apprentice worked at the Project in 2017
	Education and employment status prior to Project employment	Not applicable	Not applicable	Not applicable	Project	54.0% of 2018 Inuit Employee Survey respondents had no certificate, diploma or degree, 32.0% had a high school diploma or equivalent, and 14.0% of respondents had higher than a high school diploma or equivalent. 31.4% resigned from a previous job in order to take up employment with the Project and 3.1% suspended or discontinued their education because they were hired to work at the Project.
Livelihood and Employment	Hours of Project labour performed in Nunavut	Not applicable	↑	↑	Project	2,380,990 hours of labour were performed in Nunavut in 2017 and 8,837,636 hours of labour have been performed since Project development
	Project hours worked by LSA employees and contractors	Not applicable	↑ ↑	↓ ↑	North Baffin LSA Iqaluit	229,658 hours of labour were performed by North Baffin LSA residents (9.6% of total) and 83,410 hours of labour were performed by Iqaluit residents (3.5% of total) in 2017
	Inuit employee promotions	Not applicable	↑	↓	Project	3 Inuit employee promotions occurred in 2017
	Inuit employee turnover	Not applicable	↑	No change	Project	There were 42 Inuit employee departures in 2017, equal to an Inuit employee turnover rate of 45%
	Hours worked by female employees and contractors	Not applicable	↑	↑	Project	162,550 hours were worked by female employees and contractors in 2017 (6.8% of total), 85,988 hours of which were worked by Inuit females (3.6% of total)
	Childcare availability and costs	Not available	Not available	Not available	Project	This topic continues to be tracked through the QSEMC process and Baffinland’s community engagement program
Contracting and Business Opportunities	Value of procurement with Inuit-owned businesses and joint ventures	Not applicable	↑	↑	Project	Baffinland awarded \$387.2 million in contracts to Inuit-owned businesses and joint ventures in 2017; a total of \$819.1 million has been awarded to Inuit-owned businesses and joint ventures since Project development
	LSA employee payroll amounts	Not applicable	↑	↓	Project	Approximately \$7.06 million in payroll was provided to LSA residents in 2017. Since 2014, Baffinland has provided approximately \$33.3 million in payroll to its Inuit employees.
	Number of registered Inuit firms in the LSA	Not available	↑ ↑	↑ ↓	North Baffin LSA Iqaluit	There were 44 NTI-registered Inuit firms in the North Baffin LSA and 109 in Iqaluit in 2017
Human Health and Well-Being	Number of youth charged	↓ ↓	↓ ↓	↓ ↑	North Baffin LSA Iqaluit	A decreasing post-development trend in the number of youth charged is apparent in the LSA and was evident prior to the Project

	Proportion of taxfilers with employment income	↓ No change	↓ ↓	No change ↑	North Baffin LSA Iqaluit	A decreasing post-development trend in the proportion of taxfilers with employment income is apparent in the North Baffin LSA and was evident prior to the Project. A decreasing trend is also apparent in Iqaluit, after experiencing no change prior to the Project.
	Median employment income	↑ ↑	↑ ↑	↓ ↑	North Baffin LSA Iqaluit	An increasing post-development trend in median employment income is apparent in the LSA and was evident prior to the Project.
	Percentage of population receiving social assistance	↓ ↓	↓ ↓	↑ ↓	North Baffin LSA Iqaluit	A decreasing post-development trend in the percentage of the population receiving social assistance is apparent in the LSA and was evident prior to the Project
	Number of drug and alcohol related contraband infractions at Project sites	Not applicable	↑	↑	Project	There were 15 drug and alcohol related contraband infractions at Project sites in 2017
	Number of impaired driving violations	↑ ↑	↑ ↓	↑ ↓	North Baffin LSA Iqaluit	An increasing post-development trend in the number of impaired driving violations is apparent in the North Baffin LSA and was evident prior to the Project. A decreasing trend is apparent in Iqaluit, which was not evident prior to the Project.
	Number of drug violations	↑ ↑	↑ ↓	↓ ↓	North Baffin LSA Iqaluit	An increasing post-development trend in the number of drug violations is apparent in the North Baffin LSA and was evident prior to the Project. A decreasing trend is apparent in Iqaluit, which was not evident prior to the Project.
	Absence from the community during work rotation	Not available	Not available	Not available	Project	These topics continue to be tracked through the QSEMC process and Baffinland’s community engagement program
	Prevalence of gambling issues					
	Prevalence of family violence					
	Prevalence of marital problems					
	Percent of health centre visits related to infectious diseases	↓ ↓	↓ ↓	↓ ↓	North Baffin LSA Iqaluit	A decreasing post-development trend in the percent of health centre visits related to infectious diseases is apparent in the LSA and was evident prior to the Project
	Rates of teenage pregnancy	Not available	Not available	Not available	Project	This topic continues to be tracked through the QSEMC process and Baffinland’s community engagement program
	Crime rate	↑ ↑	↓ ↓	↓ ↓	North Baffin LSA Iqaluit	A decreasing post-development trend in crime rates is apparent in the LSA, which was not evident prior to the Project
	Number of times Baffinland’s EFAP is accessed	Not applicable	↑	↑	Project	The EFAP was accessed 38 times in 2017; 12 of these were by Nunavummiut
Community Infrastructure and Public Services	Number of Project employees and contractors who left positions in their community	Not applicable	Not applicable	Not applicable	Project	The 2018 Inuit Employee Survey indicated 22 individuals (or 31.4% of respondents) resigned from a previous job in order to take up employment with the Project. Of these, 7 were casual/part-time positions and 15 were full-time positions.
	Number of health centre visits (total)	↑ ↑	↑ ↑	↓ ↓	North Baffin LSA Iqaluit	An increasing post-development trend in the total number of health centre visits is apparent in the LSA and was evident prior to the Project
	Number of health centre visits (per capita)	↑ ↑	↑ ↑	↓ ↓	North Baffin LSA Iqaluit	An increasing post-development trend in the per capita number of health centre visits is apparent in the LSA and was evident prior to the Project
	Number of visits to Project site medic	Not applicable	↑	↑	Project	There were 6,337 visits to the Project site medic in 2017; 1,193 of these were by Inuit
	Baffinland use of LSA community infrastructure	Not applicable	↑	No change	Project	Baffinland continued to use some LSA community infrastructure to support Project operations in 2017
	Number of Project aircraft movements at LSA community airports	Not applicable	↑	↑	Project	There were 1,628 Project aircraft movements at LSA airports in 2017
Resources and Land Use	Number of recorded land use visitor person-days at Project sites	Not applicable	↑	↓	Project	There were 154 recorded land use visitor person-days at Project sites in 2017
	Number of wildlife compensation fund claims	Not applicable	↑	No change	Project	One claim was submitted to QIA for review in 2017 and was approved. It resulted in compensation of \$14,200.00 being paid.
Economic Development and Self-Reliance	Project harvesting interactions and food security	Not available	Not available	Not available	Project	This topic continues to be tracked through the QSEMC process, Baffinland’s community engagement program, and related indicators
Benefits, Royalty, and Taxation	Payroll and corporate taxes paid by Baffinland to the territorial government	Not applicable	↑	↑	Project	Approximately \$1.491 million in employee payroll tax was paid to the GN in 2017. Increased tax amounts are anticipated to be paid once the Company becomes profitable.

**Guide to Using the Table:**

**VSEC:** Refers to ‘Valued Socio-Economic Component’ and includes a selection of VSECs assessed in the Mary River Project FEIS.

**Indicator(s):** Indicators are an important aspect of socio-economic monitoring. Indicators are metrics used to measure and report on the condition and trend of a VSEC.

**Trend:** Refers to whether an indicator has exhibited change and describes the direction of that change. Black arrows (↑↓) indicate the direction of change that has occurred. Where there is no discernable or significant change ‘No change’ is used. Where there are insufficient data or other issues preventing a trend analysis, ‘Not applicable’ or ‘Not available’ are used. ‘Pre-development trend’ refers to the five-year period preceding Project construction (i.e. 2008 to 2012). In some cases, averaged data from this period have been compared against averaged data from previous years (i.e. 2003-2007, where available) to determine a trend. ‘Post-development trend’ refers to the period after Project construction commenced (i.e. 2013 onwards). Averaged data from this period may have also been compared against averaged data from the pre-development period to determine a trend. ‘Trend since previous year’ refers to the two most recent years in which indicator data are available.

**Scale:** ‘Territory’ refers to data that are available for Nunavut. ‘Region’ refers to data that are available for the Qikiqtaaluk Region. ‘North Baffin LSA’ refers to data that are available for the North Baffin Local Study Area communities of Arctic Bay, Clyde River, Hall Beach, Igloolik, and Pond Inlet. ‘Project’ refers to data that are available for the Mary River Project.

**Summary:** A brief description of the trend and/or related data.

## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY .....</b>	<b>II</b>
<b>TABLE OF CONTENTS.....</b>	<b>VI</b>
<b>LIST OF TABLES .....</b>	<b>XI</b>
<b>LIST OF FIGURES.....</b>	<b>XI</b>
<b>ABBREVIATIONS.....</b>	<b>XIII</b>
<b>1. INTRODUCTION .....</b>	<b>1</b>
1.1 MARY RIVER PROJECT OVERVIEW.....	1
1.2 SOCIO-ECONOMIC MONITORING REQUIREMENTS .....	1
1.3 REPORT OBJECTIVES AND ORGANIZATION .....	3
1.4 SOCIO-ECONOMIC MONITORING PLAN.....	4
<b>2. METHODS.....</b>	<b>8</b>
2.1 ANALYSIS OF PROJECT EFFECTS .....	8
2.2 DATA SOURCES .....	9
2.3 DATA LIMITATIONS .....	10
2.4 KEY CHANGES SINCE PREVIOUS YEAR'S REPORT .....	11
<b>3. POPULATION DEMOGRAPHICS .....</b>	<b>13</b>
3.1 DEMOGRAPHIC CHANGE.....	13
3.1.1 Project Certificate Term or Condition.....	13
3.1.2 Indicator Data .....	13
3.1.3 Analysis .....	16
3.2 IN-MIGRATION OF NON-INUIT PROJECT EMPLOYEES INTO THE NORTH BAFFIN LSA .....	16
3.2.1 Predicted Effect and Mitigation Measures .....	16
3.2.2 Indicator Data .....	17
3.2.3 Analysis .....	17
3.3 OUT-MIGRATION OF INUIT RESIDENTS FROM THE NORTH BAFFIN LSA .....	18
3.3.1 Predicted Effect and Mitigation Measures .....	18
3.3.2 Indicator Data .....	18
3.3.3 Analysis .....	19
3.4 EMPLOYEE CHANGES OF ADDRESS, HOUSING STATUS, AND MIGRATION INTENTIONS.....	20
3.4.1 Project Certificate Term or Condition.....	20
3.4.2 Indicator Data .....	20
3.4.3 Analysis .....	22
3.5 EMPLOYEE ORIGIN .....	22
3.5.1 Project Certificate Term or Condition.....	22
3.5.2 Indicator Data .....	23
3.5.3 Analysis .....	23
<b>4. EDUCATION AND TRAINING .....</b>	<b>25</b>
4.1 IMPROVED LIFE SKILLS AMONGST YOUNG ADULTS .....	25
4.1.1 Predicted Effect and Mitigation Measures .....	25

4.1.2	Indicator Data .....	25
4.1.3	Analysis .....	25
4.2	INCENTIVES RELATED TO SCHOOL ATTENDANCE AND SUCCESS.....	26
4.2.1	Predicted Effect and Mitigation Measures .....	26
4.2.2	Indicator Data .....	26
4.2.3	Analysis .....	28
4.3	OPPORTUNITIES TO GAIN SKILLS .....	29
4.3.1	Predicted Effect and Mitigation Measures .....	29
4.3.2	Indicator Data .....	29
4.3.3	Analysis .....	30
4.4	EDUCATION AND EMPLOYMENT STATUS PRIOR TO PROJECT EMPLOYMENT .....	33
4.4.1	Project Certificate Term or Condition.....	33
4.4.2	Indicator Data .....	33
4.4.3	Analysis .....	34
<b>5.</b>	<b>LIVELIHOOD AND EMPLOYMENT .....</b>	<b>36</b>
5.1	CREATION OF JOBS IN THE LSA .....	36
5.1.1	Predicted Effect and Mitigation Measures .....	36
5.1.2	Indicator Data .....	36
5.1.3	Analysis .....	37
5.2	EMPLOYMENT OF LSA RESIDENTS .....	37
5.2.1	Predicted Effect and Mitigation Measures .....	37
5.2.2	Indicator Data .....	37
5.2.3	Analysis .....	38
5.3	NEW CAREER PATHS .....	41
5.3.1	Predicted Effect and Mitigation Measures .....	41
5.3.2	Indicator Data .....	41
5.3.3	Analysis .....	42
5.4	BARRIERS TO EMPLOYMENT FOR WOMEN .....	43
5.4.1	Project Certificate Term or Condition.....	43
5.4.2	Indicator Data .....	43
5.4.3	Analysis .....	45
<b>6.</b>	<b>CONTRACTING AND BUSINESS OPPORTUNITIES.....</b>	<b>47</b>
6.1	EXPANDED MARKET FOR BUSINESS SERVICES TO THE PROJECT .....	47
6.1.1	Predicted Effect and Mitigation Measures .....	47
6.1.2	Indicator Data .....	47
6.1.3	Analysis .....	47
6.2	EXPANDED MARKET FOR CONSUMER GOODS AND SERVICES .....	48
6.2.1	Predicted Effect and Mitigation Measures .....	48
6.2.2	Indicator Data .....	48
6.2.3	Analysis .....	50
<b>7.</b>	<b>HUMAN HEALTH AND WELL-BEING.....</b>	<b>51</b>
7.1	CHANGES IN PARENTING .....	51
7.1.1	Predicted Effect and Mitigation Measures .....	51
7.1.2	Indicator Data .....	51
7.1.3	Analysis .....	52



7.2	HOUSEHOLD INCOME AND FOOD SECURITY .....	52
7.2.1	Predicted Effect and Mitigation Measures .....	52
7.2.2	Indicator Data .....	53
7.2.3	Analysis .....	55
7.3	TRANSPORT OF SUBSTANCES THROUGH PROJECT SITES .....	56
7.3.1	Predicted Effect and Mitigation Measures .....	56
7.3.2	Indicator Data .....	56
7.3.3	Analysis .....	57
7.4	AFFORDABILITY OF SUBSTANCES / ATTITUDES TOWARD SUBSTANCES AND ADDICTIONS .....	57
7.4.1	Predicted Effect and Mitigation Measures .....	57
7.4.2	Indicator Data .....	57
7.4.3	Analysis .....	59
7.5	ABSENCE FROM THE COMMUNITY DURING WORK ROTATION .....	60
7.5.1	Predicted Effect and Mitigation Measures .....	60
7.5.2	Indicator Data .....	60
7.5.3	Analysis .....	60
7.6	PREVALENCE OF GAMBLING ISSUES .....	61
7.6.1	Project Certificate Term or Condition .....	61
7.6.2	Indicator Data .....	61
7.6.3	Analysis .....	61
7.7	PREVALENCE OF FAMILY VIOLENCE .....	62
7.7.1	Project Certificate Term or Condition .....	62
7.7.2	Indicator Data .....	62
7.7.3	Analysis .....	62
7.8	PREVALENCE OF MARITAL PROBLEMS.....	62
7.8.1	Project Certificate Term or Condition .....	62
7.8.2	Indicator Data .....	62
7.8.3	Analysis .....	63
7.9	RATES OF SEXUALLY TRANSMITTED INFECTIONS AND OTHER COMMUNICABLE DISEASES .....	64
7.9.1	Project Certificate Term or Condition .....	64
7.9.2	Indicator Data .....	64
7.9.3	Analysis .....	65
7.10	RATES OF TEENAGE PREGNANCY.....	65
7.10.1	Project Certificate Term or Condition .....	65
7.10.2	Indicator Data .....	65
7.10.3	Analysis .....	66
7.11	CRIME.....	66
7.11.1	Project Certificate Term or Condition .....	66
7.11.2	Indicator Data .....	67
7.11.3	Analysis .....	67
7.12	EMPLOYEE AND FAMILY ASSISTANCE PROGRAM .....	68
7.12.1	Project Certificate Term or Condition .....	68
7.12.2	Indicator Data .....	68
7.12.3	Analysis .....	68
<b>8.</b>	<b>COMMUNITY INFRASTRUCTURE AND PUBLIC SERVICES .....</b>	<b>69</b>
8.1	COMPETITION FOR SKILLED WORKERS.....	69
8.1.1	Predicted Effect and Mitigation Measures .....	69

8.1.2	Indicator Data .....	69
8.1.3	Analysis .....	69
8.2	LABOUR FORCE CAPACITY.....	70
8.2.1	Predicted Effect and Mitigation Measures .....	70
8.2.2	Indicator Data .....	70
8.2.4	Analysis .....	71
8.3	PRESSURES ON EXISTING HEALTH AND SOCIAL SERVICES PROVIDED BY THE GN THAT MAY BE IMPACTED BY PROJECT-RELATED IN-MIGRATION OF EMPLOYEES.....	71
8.3.1	Project Certificate Term or Condition.....	71
8.3.2	Indicator Data .....	71
8.3.3	Analysis .....	73
8.4	PROJECT-RELATED PRESSURES ON COMMUNITY INFRASTRUCTURE.....	74
8.4.1	Project Certificate Term or Condition.....	74
8.4.2	Indicator Data .....	74
8.4.3	Analysis .....	76
<b>9.</b>	<b>RESOURCES AND LAND USE.....</b>	<b>77</b>
9.1	VARIOUS RESIDUAL EFFECTS.....	77
9.1.1	Predicted Effect and Mitigation Measures .....	77
9.1.2	Indicator Data .....	77
9.1.3	Analysis .....	78
<b>10.</b>	<b>ECONOMIC DEVELOPMENT AND SELF-RELIANCE.....</b>	<b>79</b>
10.1	PROJECT HARVESTING INTERACTIONS AND FOOD SECURITY .....	79
10.1.1	Project Certificate Term or Condition.....	79
10.1.2	Indicator Data .....	79
10.1.3	Analysis .....	83
<b>11.</b>	<b>BENEFITS, ROYALTY, AND TAXATION .....</b>	<b>85</b>
11.1	PAYMENTS OF PAYROLL AND CORPORATE TAXES TO THE TERRITORIAL GOVERNMENT .....	85
11.1.1	Predicted Effect and Mitigation Measures .....	85
11.1.2	Indicator Data .....	85
11.1.3	Analysis .....	85
<b>12.</b>	<b>CONCLUDING REMARKS .....</b>	<b>86</b>
12.1	SUMMARY.....	86
12.1.1	Report Summary .....	86
12.1.2	Summary of Regional and Cumulative Economic Effects .....	87
12.2	ADAPTIVE MANAGEMENT .....	88
12.3	FUTURE MONITORING AND REPORTING .....	89
12.4	CONCORDANCE WITH PROJECT CERTIFICATE TERMS AND CONDITIONS ON SOCIO-ECONOMIC MONITORING .....	90
<b>13.</b>	<b>REFERENCES .....</b>	<b>91</b>
<b>APPENDIX A: SEMWG TERMS OF REFERENCE</b>		
<b>APPENDIX B: 2017 QSEMC &amp; SEMWG MEETING MINUTES</b>		

**APPENDIX C: CONCORDANCE WITH PROJECT CERTIFICATE TERMS AND CONDITIONS RELATED TO SOCIO-ECONOMIC MONITORING**

**APPENDIX D: RESPONSES TO NIRB RECOMMENDATIONS ON THE 2016 SOCIO-ECONOMIC MONITORING REPORT**

**APPENDIX E: 2018 INUIT EMPLOYEE SURVEY**

## LIST OF TABLES

Table 1-1: Socio-economic monitoring plan for the Mary River Project .....	6
Table 2-1: Key changes since previous year's report .....	12
Table 3-1: 2016 population estimates .....	14
Table 3-2: Known in- and out-migration of Project employees and contractors in the North Baffin LSA (2015 to 2017) .....	17
Table 3-3: Changes in Inuit employee and contractor housing situation (2018 Inuit Employee Survey results) .....	20
Table 3-4: Changes in Inuit employee and contractor community (2018 Inuit Employee Survey results) .....	21
Table 3-5: Current Inuit employee and contractor housing status (2018 Inuit Employee Survey results) .....	21
Table 3-6: Inuit employee and contractor migration intentions (2018 Inuit Employee Survey results) .....	22
Table 3-7: Mary River Project employees and contractors by origin and ethnicity in 2017 .....	24
Table 4-1: Hours of training completed (2013 to 2017) .....	29
Table 4-2: Highest level of education obtained (2018 Inuit Employee Survey results) .....	33
Table 4-3: Employment status prior to Project employment (2018 Inuit Employee Survey results) .....	34
Table 4-4: Education status prior to Project employment (2018 Inuit Employee Survey results) .....	34
Table 5-1: Hours of Project labour performed in Nunavut (2013 to 2017) .....	37
Table 5-2: Hours of Project labour performed in Nunavut (2013 to 2017) .....	40
Table 5-3: Baffinland Inuit employee promotions (2014 to 2017) .....	41
Table 5-4: Baffinland employee departures (2013 to 2017) .....	42
Table 5-5: Hours worked by Project employees and contractors in Nunavut, by ethnicity and gender (2013 to 2017) .....	46
Table 6-1: Procurement with Inuit-owned businesses and joint ventures (2013 to 2017) .....	48
Table 6-2: NTI registered Inuit firms in the LSA (2013 to 2017) .....	50
Table 7-1: Number of drug and alcohol related contraband infractions at Project sites (2013 to 2017) .....	57
Table 7-2: Marital status of individuals 15 years and over (2011 and 2016) .....	63
Table 7-3: Number of times Baffinland's EFAP is accessed annually (2015 to 2017) .....	68
Table 8-1: Number of visits to Project site medic (2013 to 2017) .....	73
Table 8-2: Number of Project aircraft movements at LSA community airports (2014 to 2017) .....	76
Table 9-1: Number of recorded land use visitor person-days at Project sites (2013 to 2017) .....	78
Table 10-1: Food security components and Baffinland's role .....	84

## LIST OF FIGURES

Figure 3-1: Total population (2008 to 2016) .....	14
Figure 3-2: Percentage of Inuit versus non-Inuit residents in the North Baffin LSA (2008 to 2016) .....	15
Figure 3-3: Nunavut net migration (2008/09 to 2016/17) .....	16
Figure 4-1: Secondary school graduates (2008 to 2016) .....	27
Figure 4-2: Secondary school graduation rates (2008 to 2016) .....	28
Figure 4-3: Types and hours of training provided (2017) .....	32
Figure 6-1: Baffinland LSA employee payroll, by community (2017) .....	49
Figure 7-1: Number of youth charged (2008 to 2016) .....	52

<b>Figure 7-2: Proportion of taxfilers with employment income (2008 to 2015)</b> .....	54
<b>Figure 7-3: Median employment income (2008 to 2015)</b> .....	54
<b>Figure 7-4: Percentage of population receiving social assistance (2008 to 2013)</b> .....	55
<b>Figure 7-5: Number of impaired driving violations (2008 to 2016)</b> .....	58
<b>Figure 7-6: Number of drug violations (2008 to 2016)</b> .....	59
<b>Figure 7-7: Percent of health centre visits related to infectious diseases (2008 to 2015)</b> .....	65
<b>Figure 7-8: Number of violations per 100,000 persons (2008 to 2016)</b> .....	67
<b>Figure 8-1: Number of health centre visits (2008 to 2015)</b> .....	72
<b>Figure 8-2: Per capita number of health centre visits (2008 to 2015)</b> .....	73

## ABBREVIATIONS

<b>Baffinland</b>	Baffinland Iron Mines Corporation
<b>BCLO</b>	Baffinland Community Liaison Officer
<b>EFAP</b>	Employee and Family Assistance Program
<b>ERP</b>	Early Revenue Phase
<b>ESDC</b>	Employment and Social Development Canada
<b>FEIS</b>	Final Environmental Impact Statement
<b>FTE</b>	Full-Time Equivalent
<b>GDP</b>	Gross Domestic Product
<b>GN</b>	Government of Nunavut
<b>IHRS</b>	Inuit Human Resources Strategy
<b>IIBA</b>	Inuit Impact and Benefit Agreement
<b>INPK</b>	Ilagiiktunut Nunalinnullu Pivalliajutisait Kiinaujat
<b>IPCS</b>	Inuit Procurement and Contracting Strategy
<b>LSA</b>	Local Study Area
<b>MIEG</b>	Minimum Inuit Employment Goal
<b>MOU</b>	Memorandum of Understanding
<b>NBS</b>	Nunavut Bureau of Statistics
<b>NIRB</b>	Nunavut Impact Review Board
<b>North Baffin LSA</b>	The communities of Arctic Bay, Clyde River, Hall Beach, Igloolik, and Pond Inlet
<b>NTI</b>	Nunavut Tunngavik Incorporated
<b>Post-Development</b>	Period after Project construction commenced (i.e. 2013 onwards)
<b>Pre-Development</b>	Five-year period preceding Project construction (i.e. 2008 to 2012)
<b>Project</b>	Mary River Project
<b>QIA</b>	Qikiqtani Inuit Association
<b>QSEMC</b>	Qikiqtaaluk Socio-Economic Monitoring Committee
<b>Q-STEP</b>	Qikiqtani Skills and Training for Employment Partnership
<b>RSA</b>	Regional Study Area
<b>SEMWG</b>	Mary River Socio-Economic Monitoring Working Group
<b>VC</b>	Valued Component
<b>VEC</b>	Valued Ecosystem Component
<b>VSEC</b>	Valued Socio-Economic Component

## **1. INTRODUCTION**

### **1.1 MARY RIVER PROJECT OVERVIEW**

The Mary River Project (the Project) is an operating open pit iron ore mine with associated project components that is owned and operated by Baffinland Iron Mines Corporation (Baffinland or the Company). The Project is located in the Qikiqtaaluk Region of Nunavut on northern Baffin Island. The mine site is located approximately 160 km south of Pond Inlet (Mittimatalik) and 1,000 km north of the territorial capital of Iqaluit.

The Project consists of three currently active main project locations - the Mine Site, the 100-km long Milne Inlet Tote Road, and Milne Port. The Project also includes a proposed railway and Steensby Port, both located to the south of the mine site. At the end of 2012, the Nunavut Impact Review Board (NIRB) issued Project Certificate No. 005 authorizing the construction, operation, and closure of an 18 million tonne per annum (Mt/a) operation which included a 149-km railway and year-round shipping of iron ore from a port facility at Steensby Inlet (Steensby Port). Mine construction began in 2013.

In 2013, Baffinland applied to the NIRB to amend its Project Certificate to allow for an Early Revenue Phase (ERP) operation, which included the additional production of up to 4.2 Mt/a of iron ore, ore haulage over the Milne Inlet Tote Road, and open water shipping of ore from Milne Port. On May 28, 2014, the NIRB issued an amended Project Certificate No. 005 approving the ERP. Mining of ore began in the last quarter of 2014 and the first shipment of ore occurred in the summer of 2015. The amended Project Certificate allows for the future development of the 18 Mt/a railway operation, for a total combined production rate of 22.2 Mt/a. However, the mine is currently working toward the 4.2 Mt/a production rate via Milne Port associated with the ERP.

In the fall of 2014, Baffinland announced its intention to seek approval for a second phase of the ERP. The 'Phase 2 Proposal' consists of an expansion of the 4.2 Mt/a ERP operation by 7.8 Mt/a to 12 Mt/a of ore. This ore will be transported to Milne Port by rail and then delivered to market over an expanded shipping season. The Phase 2 proposal is part of Baffinland's approach to develop the Mary River Project in a phased and economically feasible manner. A Phase 2 Proposal Project Description was submitted to the NIRB on October 29, 2014, and on November 30, 2016 a Project Update on the Phase 2 Proposal was provided. Pending the necessary regulatory approvals, Baffinland expects to submit a Draft Environmental Impact Statement Addendum for the Phase 2 Proposal in 2018. Additional information on Baffinland's regulatory submissions and approvals can be found on the NIRB public registry: <http://www.nirb.ca/>.

### **1.2 SOCIO-ECONOMIC MONITORING REQUIREMENTS**

Project-related socio-economic monitoring requirements originate from the Nunavut Agreement and NIRB Project Certificate No. 005. The Nunavut Agreement is a comprehensive land claims agreement signed in 1993 between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada. As a result of signing the Nunavut Agreement, Inuit exchanged Aboriginal title to all their traditional land in the Nunavut Settlement Area for a series of rights and benefits. The Nunavut Agreement also created various 'institutions of public government' such as the NIRB and Nunavut Water Board and established conditions for the review and oversight of resource development projects. Article 12, Part 7 of the Nunavut Agreement provides details on monitoring programs which may be required under a NIRB project certificate and notes the purpose of these programs shall be:

- (a) *to measure the relevant effects of projects on the ecosystemic and socio-economic environments of the Nunavut Settlement Area;*
- (b) *to determine whether and to what extent the land or resource use in question is carried out within the predetermined terms and conditions;*
- (c) *to provide the information base necessary for agencies to enforce terms and conditions of land or resource use approvals; and*
- (d) *to assess the accuracy of the predictions contained in the project impact statements.*

As noted previously, NIRB issued an amended Project Certificate No. 005 (i.e. NIRB 2014) approving the ERP on May 28, 2014. NIRB (2014) and Section 12.4 of this report should be consulted for further information on the terms and conditions specific to socio-economic monitoring that were included in the Project Certificate.

Several terms and conditions included in Project Certificate No. 005 relate to Baffinland's engagement with the Qikiqtaaluk Socio-Economic Monitoring Committee (QSEMC). The QSEMC is one of three regional socio-economic monitoring committees in Nunavut. These committees were established in 2007 to address project certificate requirements for project-specific monitoring programs and to create a discussion forum and information sharing hub that supports impacted communities and interested stakeholders to take part in monitoring efforts (SEMCs 2017a). Baffinland is actively involved in the QSEMC and regularly participates in its meetings. Most recently, Baffinland participated in the QSEMC's July 2017 meeting in Arctic Bay. A summary of this meeting can be found in SEMCs (2017b) and in Appendix B. Baffinland's responses to two Project-specific action items/recommendations issued by the QSEMC can also be found in Appendix B.

The Mary River Socio-Economic Monitoring Working Group (SEMWG or Working Group) Terms of Reference also provides guidance on Baffinland's socio-economic monitoring program. Baffinland, in addition to the Government of Nunavut, the Government of Canada, and the Qikiqtani Inuit Association (QIA), is a member of the SEMWG. The SEMWG is intended to support the QSEMC's regional monitoring initiatives through Project-specific socio-economic monitoring. The SEMWG also supports the fulfillment of terms and conditions set out in Project Certificate No. 005 that relate to socio-economic monitoring. A Terms of Reference for the SEMWG can be found in Appendix A.<sup>1</sup> It describes the Working Group's purpose; membership and member roles; objectives; and reporting, communication, and meeting requirements. Furthermore, Section 4.1 of the Terms of Reference notes that Baffinland:

*"...will prepare an annual socio-economic report, presenting performance data, to the Nunavut Impact Review Board for review...containing data on the indicators selected by the Working Group for the previous calendar year (January to December). These reports will further describe the Company's participation in the [QSEMC], other collaborative monitoring processes and any activities related to better understanding of socio-economic processes."*

As established in the SEMWG Terms of Reference, the Working Group members agreed that collaboration is required to effectively monitor the socio-economic performance of the Mary River

---

<sup>1</sup> Baffinland anticipates updating the SEMWG Terms of Reference in 2018. The existing Terms of Reference is somewhat dated (December 2012) and does not fully reflect the current scope of working group activities. Baffinland will work with SEMWG members in 2018 to complete revisions to the Terms of Reference. Baffinland anticipates including a revised Terms of Reference in its 2018 Socio-Economic Monitoring Report.



Project. It was acknowledged that Baffinland is best able to collect and provide data concerning employment and training in relation to the Project, and the Government of Nunavut and the Government of Canada are best able to report public statistics on general health and well-being, food security, demographics, and other socio-economic indicators at the community and territorial level. The QIA was noted to be best able to provide information and data relating to Inuit land use and culture at the community and regional level.

Baffinland is actively involved in the SEMWG and regularly participates in its meetings. Most recently, Baffinland met with the SEMWG by teleconference in February 2017 and in-person in September 2017 in Iqaluit. A summary of these meetings, including Baffinland's responses to SEMWG action items/recommendations, can be found in Appendix B.

This 2017 Socio-Economic Monitoring Report helps fulfill Project-related socio-economic monitoring requirements associated with the Nunavut Agreement and NIRB Project Certificate No. 005, and follows the guidance provided by the SEMWG Terms of Reference, described above. Baffinland will continue to review and address its socio-economic monitoring requirements moving forward.

### 1.3 REPORT OBJECTIVES AND ORGANIZATION

This is the fifth annual socio-economic monitoring report prepared by Baffinland for the Mary River Project. Project-specific socio-economic monitoring programs in Nunavut are generally expected to focus on two areas: 'effects monitoring' and 'compliance monitoring'. Effects monitoring keeps track of the socio-economic effects of a project to see if management plans are working or if any unexpected effects are occurring. Compliance monitoring occurs to make sure proponents follow the terms and conditions of the licences, decisions, and certificates issued by authorizing agencies (NIRB 2013). This focus is commensurate with socio-economic monitoring best-practice (e.g. Noble 2015; Vanclay et al. 2015) and can assist companies with achieving their sustainable development goals.

Socio-economic monitoring also supports adaptive management, as findings can alert project proponents to the emergence of unanticipated effects and help initiate a management response. Furthermore, regular review of monitoring plans will help determine whether existing socio-economic indicators and monitoring methods remain appropriate (Vanclay et al. 2015).

In consideration of the above, this report aims to meet the following objectives:

1. Evaluate the accuracy of selected socio-economic effect predictions presented in the Mary River Project Final Environmental Impact Statement (FEIS)<sup>2</sup> and identify any unanticipated effects.
2. Help identify areas where Baffinland's existing socio-economic mitigation and management programs may not be functioning as anticipated.
3. Assist regulatory and other agencies in evaluating Baffinland's compliance with socio-economic monitoring requirements for the Project.
4. Support adaptive management, by identifying potential areas for improvement in socio-economic monitoring and performance, where appropriate.

---

<sup>2</sup> References to the Mary River Project FEIS in this report include any revisions that were made to the FEIS for the original ERP addendum.

This 2017 report presents information related to VSECs assessed in the FEIS. Throughout this report, predicted residual VSEC effects and associated mitigation measures from the FEIS are described. In other cases, socio-economic Project Certificate terms or conditions are described instead of effect predictions. This is followed by a presentation of indicator data (where available) and an analysis of that data. This structure allows Baffinland's reporting to align with the FEIS predictions and Project Certificate terms and conditions, and increases comparability between them and currently available data.

This report is organized in the following manner:

- Section 1 (i.e. this section) introduces the report and the scope of its contents.
- Section 2 describes the methods used in this report and how they support the conclusions that are reached.
- Sections 3 to 11 assess the socio-economic performance of VSECs included in the FEIS.
- Section 12 provides a report summary, comments on adaptive management and future monitoring plans, and summarizes how Baffinland has addressed Project Certificate terms and conditions specific to socio-economic monitoring.
- Appendices A through E provide additional information on Baffinland's socio-economic monitoring program. Appendix A includes a copy of the Terms of Reference for the SEMWG. Appendix B includes meeting minutes from 2017 QSEMC and SEMWG meetings. Appendix C summarizes how Baffinland has addressed Project Certificate terms and conditions related to socio-economic monitoring. Appendix D summarizes Baffinland's responses to NIRB recommendations on the 2016 Socio-Economic Monitoring Report. Appendix E includes a copy of Baffinland's 2018 Inuit Employee Survey.

#### 1.4 SOCIO-ECONOMIC MONITORING PLAN

Baffinland will continue to conduct comprehensive socio-economic monitoring for the Project. A long-term socio-economic monitoring plan is presented in Table 1-1 and summarizes indicators and data sources for all VSECs assessed in the FEIS (or notes where monitoring is not required or other forms of issue tracking and monitoring are taking place). More specifically, indicators are proposed for VSEC-related residual effects and information that has been requested through the Project Certificate. Prior to finalizing the Project's socio-economic monitoring plan, Baffinland solicited feedback from members of the SEMWG on a draft version of the plan presented in the 2015 Socio-Economic Monitoring Report (i.e. JPCSL 2016). Baffinland also identified several internal refinements to this plan and in its approach to socio-economic monitoring prior to finalization.

The structure and content of Baffinland's socio-economic monitoring report may benefit from additional refinement in the future; suggestions from reviewers on how indicators and data sources could potentially be improved are welcome. It is further acknowledged that any significant changes to the socio-economic monitoring program require discussion with the SEMWG. Likewise, Table 1-1 includes several instances where indicators haven't been identified by Baffinland for assorted reasons (e.g. sufficient monitoring is already conducted elsewhere, no residual effects were identified in the FEIS, insufficient data availability). In some additional cases, other forms of issue tracking will take place (e.g. through the QSEMC process or Baffinland's community engagement program). Should new indicators be required for these topics in the future, they will be selected in consultation with the SEMWG.

Worthy of note is Baffinland's recent participation in the September 2017 territorial socio-economic monitoring workshop held by the Government of Nunavut in Iqaluit. Primary objectives of this workshop included development of a list of core monitoring indicators for the territory, identification of methods for addressing socio-economic monitoring data gaps, establishing preferred monitoring report compositions and assessment methodologies, and endorsement of the Government of Nunavut's territorial reporting proposal. Baffinland was an active participant in this workshop (in addition to other territorial mineral developers, federal/territorial governmental agencies, and Inuit organizations) and provided feedback throughout the process. The Company received the Government of Nunavut's draft workshop report and recommendations (Government of Nunavut 2017) and provided comments back to the Government of Nunavut. Some modifications to Baffinland's monitoring plan have been made as a result of the draft report (see Section 2.4 for additional details). Baffinland will investigate the possibility of further aligning its monitoring program with the Government of Nunavut's recommendations, where appropriate, following its review of the final workshop report.

Table 1-1: Socio-economic monitoring plan for the Mary River Project

VSEC	Residual Effect or Project Certificate Term or Condition	Topic	Indicator(s)	Data Source	
Population Demographics	Residual Effect	In-migration of non-Inuit Project employees into the North Baffin LSA	Known in-migrations of non-Inuit Project employees and contractors	Baffinland	
			In-migration of non-Inuit to the North Baffin LSA	Limited data currently available	
		Out-migration of Inuit residents from the North Baffin LSA	Known out-migrations of Inuit Project employees and contractors	Baffinland	
			Out-migration of Inuit from the North Baffin LSA	Limited data currently available	
	Project Certificate Term or Condition	Demographic change	Population estimates	NBS (2016)	
			Nunavut net migration	NBS (2017a)	
		Employee changes of address, housing status, and migration intentions	Employee and contractor changes of address, housing status, and migration intentions	Baffinland	
Employee origin		Employee and contractor origin	Baffinland		
Education and Training	Residual Effect	Improved life skills amongst young adults	Participation in pre-employment training	Baffinland	
			LSA employment and on-the-job training	Baffinland	
		Incentives related to school attendance and success	Number of secondary school graduates	NBS (2016b)	
			Secondary school graduation rate	NBS (2016c)	
			Investments in school-based initiatives	Baffinland	
		Opportunities to gain skills	Hours of training completed by Inuit employees and contractors	Baffinland	
			Types of training provided to Inuit employees and contractors	Baffinland	
			Apprenticeships and other opportunities	Baffinland	
	Project Certificate Term or Condition	Education and employment status prior to Project employment	Education and employment status prior to Project employment	Baffinland	
	Livelihood and Employment	Residual Effect	Creation of jobs in the LSA	Hours of Project labour performed in Nunavut	Baffinland
Employment of LSA residents			Project hours worked by LSA employees and contractors	Baffinland	
New career paths			LSA employment	Baffinland	
			Inuit employee promotions	Baffinland	
			Inuit employee turnover	Baffinland	
Project Certificate Term or Condition		Barriers to employment for women	Hours worked by female employees and contractors	Baffinland	
			Re: childcare availability and costs – Topic will continue to be tracked through the QSEMC process and Baffinland’s community engagement program. Should new indicators be required in the future, they will be selected in consultation with the SEMWG.		
Contracting and Business Opportunities	Residual Effect	Expanded market for business services to the Project	Value of procurement with Inuit-owned businesses and joint ventures	Baffinland	
		Expanded market for consumer goods and services	LSA employee payroll amounts	Baffinland	
			Number of registered Inuit firms in the LSA	NTI (2017)	
Human Health and Well-Being	Residual Effect	Changes in parenting	Number of youth charged	Statistics Canada (2017a)	
		Household income and food security	Proportion of taxfilers with employment income and median employment income	NBS (2017d)	
			Percentage of population receiving social assistance	NBS (2014)	
		Transport of substances through Project site	Number of drug and alcohol related contraband infractions at Project sites	Baffinland	
		Affordability of substances	Number of impaired driving violations	NBS (2017e)	
		Attitudes toward substances and addictions	Number of drug violations		
	Project Certificate Term or Condition	Absence from the community during work rotation	Topic will continue to be tracked through the QSEMC process and Baffinland’s community engagement program. Should new indicators be required in the future, they will be selected in consultation with the SEMWG.		
		Prevalence of substance abuse	N/A – Monitoring already conducted through other ‘human health and well-being’ indicators		
		Prevalence of gambling issues	Topics will continue to be tracked through the QSEMC process and Baffinland’s community engagement program. Should new indicators be required in the future, they will be selected in consultation with the SEMWG.		
		Prevalence of family violence			
		Prevalence of marital problems			
		Rates of sexually transmitted infections and other communicable diseases	Percent of health centre visits related to infectious diseases	NBS (2017f)	
		Rates of teenage pregnancy	Topic will continue to be tracked through the QSEMC process and Baffinland’s community engagement program. Should new indicators be required in the future, they will be selected in consultation with the SEMWG.		
		High school completion rates	N/A – Monitoring already conducted through other ‘education and training’ indicators		
		Other	Crime rate	NBS (2017g)	
Number of times Baffinland’s EFAP is accessed	Baffinland				
Community Infrastructure and Public Services	Residual Effect	Competition for skilled workers	Number of Project employees and contractors who left positions in their community	Baffinland	
		Labour force capacity	Training and experience generated by the Project	Baffinland	
			Inuit employee turnover	Baffinland	
	Project Certificate		Number of health centre visits (total and per capita)	NBS (2017f)	

	Term or Condition	Pressures on existing health and social services provided by the GN that may be impacted by Project-related in-migration of employees	Number of visits to Project site medic	Baffinland
		Project-related pressures on community infrastructure	Baffinland use of LSA community infrastructure	Baffinland
			Number of Project aircraft movements at LSA community airports	
Cultural Resources	N/A	N/A	N/A – Monitoring already conducted through annual Archaeology Status Update Reports	
Resources and Land Use	Residual Effect	Quantity of caribou harvested per level of effort	N/A – Potential effects on caribou will continue to be tracked through Baffinland’s terrestrial wildlife monitoring program	
		Safe travel around Eclipse Sound and Pond Inlet	Number of recorded land use visitor person-days at Project sites Number of wildlife compensation fund claims	Baffinland QIA
		Safe travel through Milne Port		
		Emissions and noise disruption at camps		
		Sensory disturbances and safety along Milne Inlet Tote Road		
		Detour around mine site for safety and travel		
		Difficulty and safety relating to railway crossing		
		Detour around Steensby Port		
		HTO cabin closures		
		Restriction of camping locations around Steensby Port		
N/A – No monitoring required. Effects are permanent for life of Project.				
Cultural Well-Being	N/A	N/A	N/A – No monitoring required. No residual effects identified in the FEIS.	
Economic Development and Self-Reliance	Residual Effect	N/A	N/A – As noted in the FEIS, an integrated assessment of other VECs/VSECs was conducted for the Economic Development and Self-Reliance VSEC. No new residual effects specific to this VSEC were identified. Relevant monitoring of residual effects is conducted through other VECs/VSECs.	
	Project Certificate Term or Condition	Project harvesting interactions and food security, which includes broad indicators of dietary habits	Topic will continue to be tracked through the QSEMC process, Baffinland’s community engagement program, and related indicators. Should new indicators be required in the future, they will be selected in consultation with the SEMWG.	
Benefits, Royalty, and Taxation	Residual Effect	Payments of payroll and corporate taxes to the territorial government	Payroll and corporate taxes paid by Baffinland to the territorial government	Baffinland
Governance and Leadership	N/A	N/A	N/A – No monitoring required. No residual effects identified in the FEIS.	

## 2. METHODS

### 2.1 ANALYSIS OF PROJECT EFFECTS

This report assesses the socio-economic performance of the Mary River Project in 2017. It does so primarily through an analysis of Project-related socio-economic effects that were originally predicted to occur in the FEIS. To help focus this analysis, only residual effects that underwent detailed significance assessments in the FEIS are evaluated; key indicators, subjects of note, and other potential effects are not reviewed. Furthermore, only the direction (e.g. positive, negative) and magnitude (where appropriate)<sup>3</sup> of these residual effects are evaluated.

One or more monitoring indicators are then identified for each of these residual effects and recent indicator data is presented for consideration against the original effect predictions that were made. Structuring the report in this manner allows the effect predictions to be more readily verified (or refuted) and provides insight into the effectiveness of existing mitigation measures. This report also presents information that was requested through the Project Certificate. This information is evaluated in a similar manner to the residual effects mentioned above, although comparisons against FEIS predictions were not required.

‘Indicators’ are an important aspect of socio-economic monitoring. Indicators are metrics used to measure and report on the condition and trend of a Valued Component (VC)<sup>4</sup>, and help facilitate the analysis of interactions between a project and a selected VC (BCEAO 2013). Indicators can also provide an early warning of potential adverse effects and are considered the most basic tools for analyzing change (Noble 2015). Noble (2015) suggests good indicators are:

- *Measurable, either in a qualitative or quantitative fashion*
- *Indicative of the VC of concern*
- *Sensitive and detectable in terms of project-induced stress*
- *Appropriate to the spatial scale of the VC of concern*
- *Temporally reliable*
- *Diagnostic to change*
- *Applicable across different types of development projects*
- *Cost-effective to collect, measure, or analyze*
- *Predictable and accurate with an acceptable range of variability*
- *Understandable by non-scientists*
- *Useful for informing management actions or decisions*

The socio-economic monitoring indicators presented in this report were selected with this guidance in mind. Annually produced, community-level statistics have been obtained in support of these indicators where they are readily available. The analyses presented in this report generally also focus on one of two spatial scales: The Local Study Area (LSA) or Regional Study Area (RSA). As identified in the FEIS, the LSA includes the North Baffin point-of-hire communities of Arctic Bay, Clyde River, Hall Beach, Igloodik, and Pond Inlet, in addition to the City of Iqaluit (which is also a point-of-hire). References to the ‘North Baffin LSA’ include all these communities but Iqaluit. In some cases, data

---

<sup>3</sup> Effect magnitude is typically only assessed where quantitative metrics were provided in the FEIS.

<sup>4</sup> Valued Components are typically referred to as Valued Ecosystem Components (VECs) and Valued Socio-Economic Components (VSECs) in Nunavut.

for the North Baffin LSA communities have been aggregated to facilitate trend analyses in this report. The RSA includes the entire territory of Nunavut.

Indicator ‘trends’ are discussed throughout this report and describe whether an indicator has exhibited change (and the direction of that change). A ‘pre-development’ trend in this report refers to the five-year period preceding Project construction (i.e. 2008 to 2012). In some cases, averaged data from this period have been compared against averaged data from previous years (i.e. 2003-2007, where available) to determine a trend. Likewise, a ‘post-development’ trend refers to the period after Project construction commenced (i.e. 2013 onwards). Averaged data from this period may have also been compared against averaged data from the pre-development period to determine a trend. A trend ‘since previous year’ refers to the two most recent years in which indicator data are available.

Trend magnitude (e.g. using qualifiers such as ‘large’ or ‘small’) is generally not described in this report; trends are often simply referred to as increasing/decreasing. Available data and trends are then assessed in the context of potential Project influences on the indicator(s) in question. However, it is important to note that Project construction only began in 2013 and there is minimal post-development data currently available in some instances. Socio-economic indicators can also be influenced by many different factors. Correlations (if any) between the Project and socio-economic indicators presented in this report may only come to light with the analysis of additional annual data.

## 2.2 DATA SOURCES

Data for this report have been obtained from Company, government, Inuit organization, and other sources. Data are presented in textual, graphical, or tabular formats, with a source identified for each. Company data sources include human resources records, site files, and information obtained from other Company documents and employees. In addition, Baffinland has presented selected results from its Inuit Employee Survey, which is completed annually at Project sites on a voluntary basis. A copy of this survey can be found in Appendix E.<sup>5</sup> Some 2013 and 2014 Project-specific data were also drawn from previous socio-economic monitoring reports prepared for the Project (e.g. BDSI 2015). Results from Baffinland’s community engagement program are also referenced throughout this report and include comments documented in the Company’s StakeTracker database from select public and stakeholder meetings held on the Project in 2017, in addition to comments documented during the 2017 IIBA Annual Project Review Forum (i.e. Dicta Court Reporting Inc. 2017).

Government data have been obtained primarily from the Nunavut Bureau of Statistics, the Government of Nunavut’s central statistical agency. The Nunavut Bureau of Statistics posts current Nunavut population data, economic data, labour force and employment data, social data, census data, and Nunavut Housing Survey data on its website (<http://www.stats.gov.nu.ca/en/home.aspx>) for the public to use. Reports from the QSEMC annual meetings (e.g. SEMCs 2017b) were also reviewed, with the goal of integrating relevant data and insights where appropriate. Some data have also been obtained from

---

<sup>5</sup> The Inuit Employee Survey was revised in 2017. Namely, the survey was expanded to include questions that address compliance issues related to *IIBA Article 11 – Workplace Conditions*, in addition to questions that already addressed Project Certificate terms and conditions related to socio-economic monitoring. The survey now contains 11 sections: general, housing, education and work experience, cross-cultural orientation, workplace orientation program, Inuktitut in the workplace, supporting our workforce, counselling and support services, country food, leisure time and traditional activities, and communications. The survey’s target audience was also adjusted to focus on both Inuit employees and contractors.

Nunavut Tunngavik Inc. (e.g. on registered Inuit firms) and other sources (e.g. QIA, federal government agencies, third party groups such as mining associations).

### 2.3 DATA LIMITATIONS

Some data limitations were identified during the preparation of this report. Notably, appropriate indicator data (e.g. annually produced, community-level statistics) are currently unavailable for some topics. As such, these topics continue to be tracked through the QSEMC process, Baffinland's community engagement program, or related indicators. Should new indicators be required in the future, they will be selected in consultation with the SEMWG. Topics for which data limitations currently exist include:

- In-migration of non-Inuit to the North Baffin LSA
- Out-migration of Inuit from the North Baffin LSA
- Childcare availability and costs
- Absence from the community during work rotation
- Prevalence of gambling issues
- Prevalence of family violence
- Prevalence of marital problems
- Rates of teenage pregnancy
- Project harvesting interactions and food security

Some 2013 and 2014 Company data have also been drawn from previous socio-economic monitoring reports prepared for the Project (e.g. BDSI 2015). However, comparisons against some of this data should be made with a degree of caution. This is because the socio-economic data collection and analysis methods employed by Baffinland have changed in some instances.<sup>6</sup> Furthermore, some historic Company data presented in this report is of a limited nature or reflects information that was only available for certain periods of time (due to ongoing development of Baffinland's data management systems). Community engagement comments are presented from select public and stakeholder meetings held on the Project in 2017 (i.e. a January procurement and contracting workshop held in Pond Inlet and a May/June North Baffin community tour); StakeTracker records for other community engagement meetings held in 2017 were unavailable.

Baffinland continues to refine its socio-economic data management and reporting systems. For example, improvements to the methods used for tracking employee attendance and hours worked continue to be investigated, as some inconsistencies in Baffinland's existing systems have been identified (e.g. some Inuit employees/contractors have been erroneously identified as non-Inuit). However, Baffinland has attempted to present conservative employment data and/or identify data limitations wherever possible in this report. Data in this report are also presented for the most recent years that are currently available. Lag times in data availability exist for some data sources and 2017 data were not available in all cases.

---

<sup>6</sup> Tables 5-1, 5-2, and 5-5 present 2013 and 2014 data from BDSI (2015). However, comparisons against this data should be made with a degree of caution. This is because some calculation methods used by Baffinland have changed and some historic data makes assumptions with regards to hours worked at the Project. Hours worked by non-Inuit in 2013 in Table 5-5 also do not add up completely (i.e. 144 hours are unaccounted for), for unknown reasons.



Finally, some limitations were identified in the 2018 Inuit Employee Survey data. While efforts were made to capture major rotations of current site-based employees, individuals on vacation, medical, or other types of leave at the time of the survey would not have been captured in the survey recruitment efforts. Furthermore, some returned surveys contained unanswered questions or unclear responses. Where survey answers were not provided or were unclear, results are presented in this report as 'unknown'. A modified approach to calculating a survey response rate has also been used. Namely, the number of completed surveys (71) was divided by the total number of Inuit employees/contractors on staff in Q4 2017 (244), as reported in Section 3.5. This is a general, but likely conservative approximation of the survey response rate. This is because the calculation includes all Inuit employees/contractors who worked on the Project during all of Q4 2017 (including community-based positions and individuals who may no longer be working for the Company), rather than only those who were present on site during the much shorter survey administration period. Using this method, a 29% response rate to the 2018 Inuit Employee Survey was achieved.

Baffinland has experienced certain planning challenges when implementing its recent employee surveys. For this reason, the survey discussed in this 2017 Socio-Economic Monitoring Report was completed in January 2018, while the survey discussed in the 2016 Socio-Economic Monitoring Report was completed in February/March 2017. Baffinland is working to address this timing discrepancy moving forward.

#### 2.4 KEY CHANGES SINCE PREVIOUS YEAR'S REPORT

Several changes have been made to this report since the previous year. Many of these changes reflect incremental monitoring program improvements identified by Baffinland or its stakeholders. A description of key changes, reasons for them, and associated report references are summarized in Table 2-1.

**Table 2-1: Key changes since previous year's report**

Description of Change	Reason for Change	Report Reference
Table 1-1, removal of 'overall effects on children' as a residual effect for the Human Health and Well-Being VSEC	This was erroneously listed as a residual effect; the FEIS identifies this as a key indicator instead. Relevant monitoring continues to be conducted through other indicators (as it was previously).	Section 1.4
Table 1-1, removal of 'increased pressure on the land', 'changes to land-based economy', 'increased opportunities for youth', 'education and training opportunities', 'increased wealth and well-being', 'increased wealth in community', 'rotational absence of residents', 'increased local business opportunities', and 'expanded economic activity, flows, and opportunities' as residual effects for the Economic Development and Self-Reliance VSEC	These were erroneously listed as residual effects. As noted in the FEIS, an integrated assessment of other VECs/VSECs was conducted for the Economic Development and Self-Reliance VSEC. No new residual effects specific to this VSEC were identified. Relevant monitoring of residual effects continues to be conducted through other VECs/VSECs (as it was previously).	Section 1.4
Selected indicators have been re-worded to more explicitly include contractor data in addition to employee data	Provides greater clarity on the types of data reported through selected indicators.	Section 1.4
Indicator trends previously assessed using a trendline are now assessed using average values calculated from available data	Average values provide additional quantitative insight into trend direction and magnitude.	Section 2.1 (Methods) Various sections (Analysis)
Addition of a report section summarizing key changes since previous year's report	Provides clarity on major report changes, year-to-year.	Section 2.4
Addition of the indicator 'investments in school-based initiatives'	Indicator recommended by Government of Nunavut (Government of Nunavut 2017).	Section 4.2
Addition of non-Inuit employee turnover data	Recommended by Government of Nunavut (Government of Nunavut 2017) and QIA.	Section 5.3
Addition of indicator 'number of times Baffinland's Employee and Family Assistance Program is accessed'	Indicator recommended by Government of Nunavut (Government of Nunavut 2017) and QIA.	Section 7.12
Graphical addition of pre-development/post-development periods to selected figures	Inclusion of these periods provides additional context to the indicator data that is presented.	Various figures
Addition of appendix including meeting minutes from annual QSEMC and SEMWG meetings, including Baffinland's responses to Project-specific action items/recommendations issued by the QSEMC in 2017.	Meeting minutes summarize inputs received from the QSEMC and SEMWG regarding socio-economic monitoring and performance of the Project, and its compliance with various Project Certificate terms and conditions.	Appendix B
Addition of appendix summarizing Baffinland's responses to NIRB recommendations on the previous year's socio-economic monitoring report	Appendix clearly summarizes Baffinland's responses to NIRB recommendations on the previous year's socio-economic monitoring report.	Appendix D
Inuit Employee Survey was revised	Survey was revised to address several IIBA compliance issues. Survey target audience was also adjusted to focus on both Inuit employees and contractors.	Appendix E

### 3. POPULATION DEMOGRAPHICS

Two residual effects for the VSEC Population Demographics were assessed in the FEIS. These include in-migration of non-Inuit Project employees into the North Baffin LSA and out-migration of Inuit residents from the North Baffin LSA. These are reviewed more fully below, in addition to information on three other topics requested through the Project Certificate. However, community and territorial demographic change data are first reviewed for greater context.

#### 3.1 DEMOGRAPHIC CHANGE

##### 3.1.1 Project Certificate Term or Condition

Project Certificate term and condition no. 131 requests that monitoring occur on:

*...demographic changes including the movement of people into and out of the North Baffin communities and the territory as a whole.*

Population estimates and other demographic change measures are included in many socio-economic monitoring initiatives. This is because of their importance to understanding broad socio-economic trends. As such, this section provides an overview of some major demographic changes that are occurring in Nunavut and the LSA communities. Sections 3.2 and 3.3, however, review the FEIS predictions made regarding in-migration and out-migration in the North Baffin LSA in more detail.

##### 3.1.2 Indicator Data

###### *Population Estimates*

Population estimates for Nunavut and the LSA communities of Arctic Bay, Clyde River, Hall Beach, Igloolik, Pond Inlet, and Iqaluit are provided by the Nunavut Bureau of Statistics (2016)<sup>7</sup> and presented in Table 3-1. 2016 was the most recent year population estimates were available. In 2016, the North Baffin LSA communities had a population of 6,608. Approximately 94.5% of this population were Inuit and 5.5% were non-Inuit. Iqaluit had a population of 7,590. Approximately 55.4% of this population were Inuit and 44.6% were non-Inuit. Nunavut had a population of 37,082. Approximately 84.2% of this population were Inuit and 15.8% were non-Inuit.

Between 2012 and 2016, the North Baffin LSA communities grew from a population of 6,050 to 6,608 (or 9.2%). Iqaluit grew from a population of 7,013 to 7,590 (or 8.2%), while Nunavut grew from a population of 34,707 to 37,082 (or 6.8%). Average annual growth rates over this period for the North Baffin LSA communities (2.3%), Iqaluit (2.1%), and Nunavut (1.7%) were considerably higher than the Canadian average (1.1%) (Statistics Canada 2017b). Figure 3-1 displays the population in these locations from 2008 to 2016.

---

<sup>7</sup> The Nunavut Bureau of Statistics (2016) notes that community population estimates are preliminary and subject to revision. 2016 estimates, in particular, are suggested to be viewed with some caution, as these are in early preliminary stages.

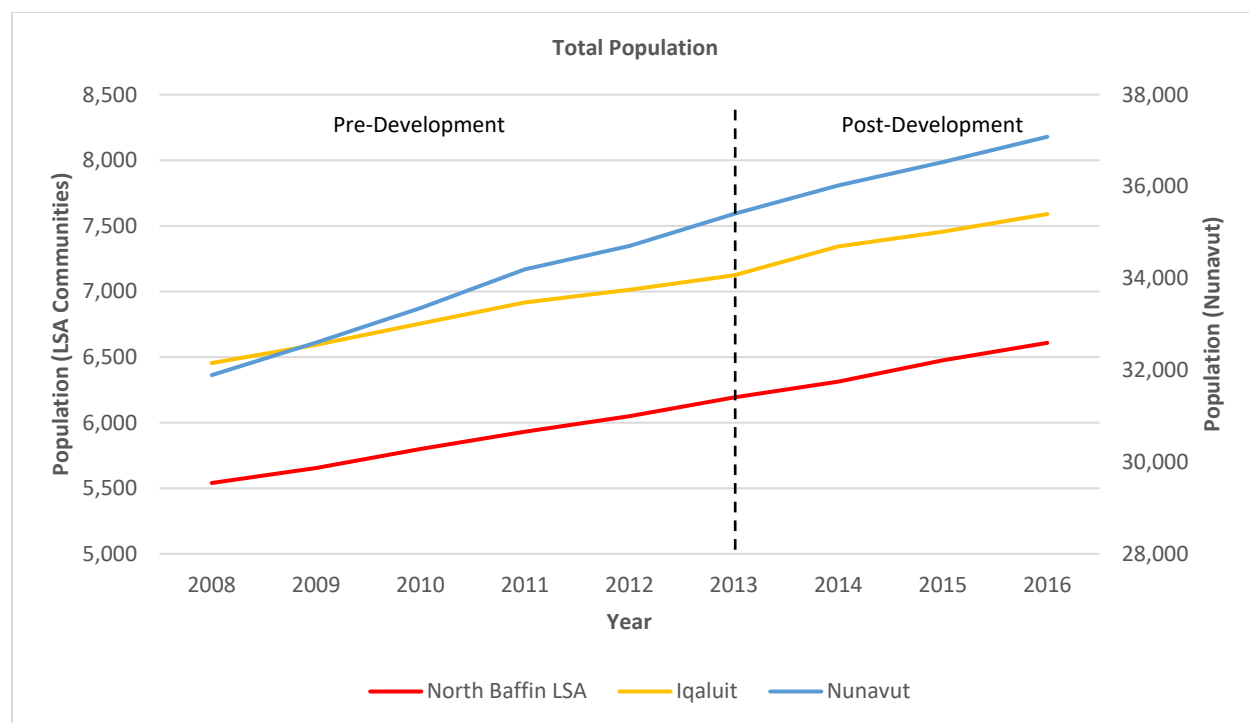
**Table 3-1: 2016 population estimates**

2016 Population Estimates			
Community	Total Population	Inuit	Non-Inuit
North Baffin LSA	6,608	6,247	361
· Arctic Bay	876	828	48
· Clyde River	1,127	1,085	42
· Hall Beach	956	915	41
· Igloolik	1,986	1,850	136
· Pond Inlet	1,663	1,569	94
Iqaluit	7,590	4,208	3,382
Nunavut	37,082	31,234	5,848

Source: Nunavut Bureau of Statistics (2016)

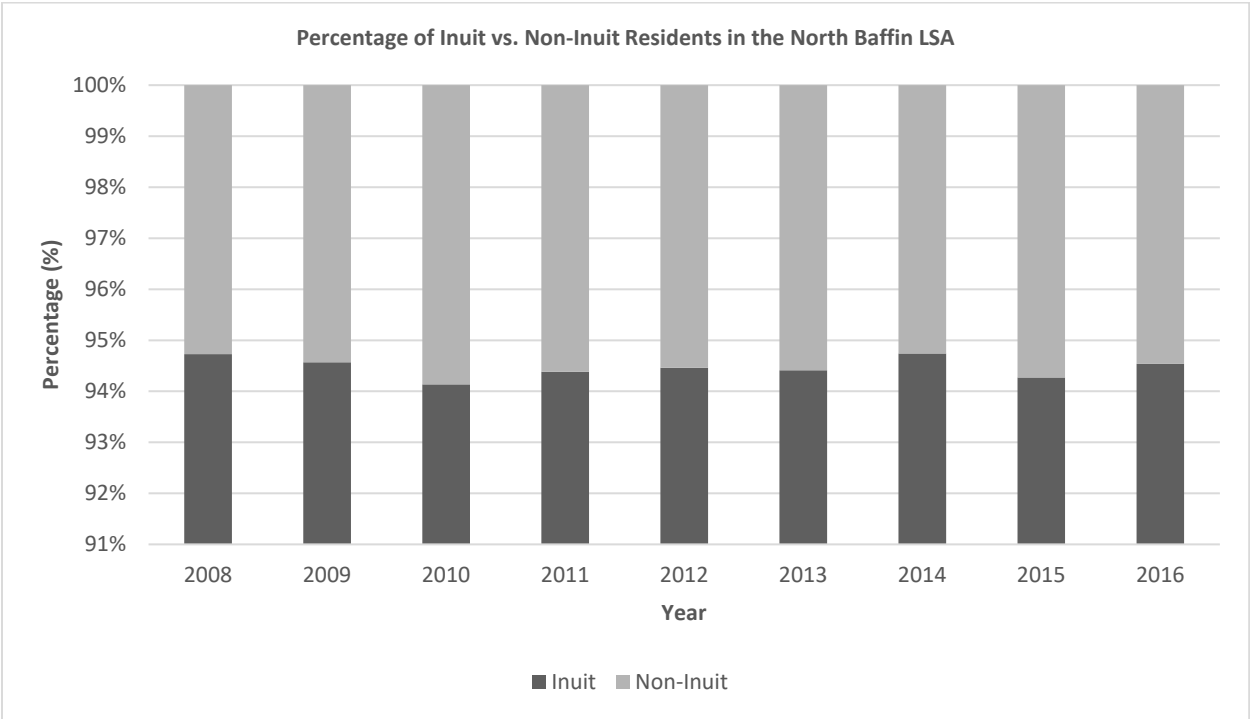
The percentage of Inuit versus non-Inuit residents in the North Baffin LSA communities remains high. An average 94.5% of North Baffin LSA residents were Inuit in the pre-development period, while an equal 94.5% were Inuit in the post-development period. Figure 3-2 displays the percentage of Inuit versus non-Inuit residents in the North Baffin LSA communities from 2008 to 2016.

**Figure 3-1: Total population (2008 to 2016)**



Source: Nunavut Bureau of Statistics (2016)

**Figure 3-2: Percentage of Inuit versus non-Inuit residents in the North Baffin LSA (2008 to 2016)**

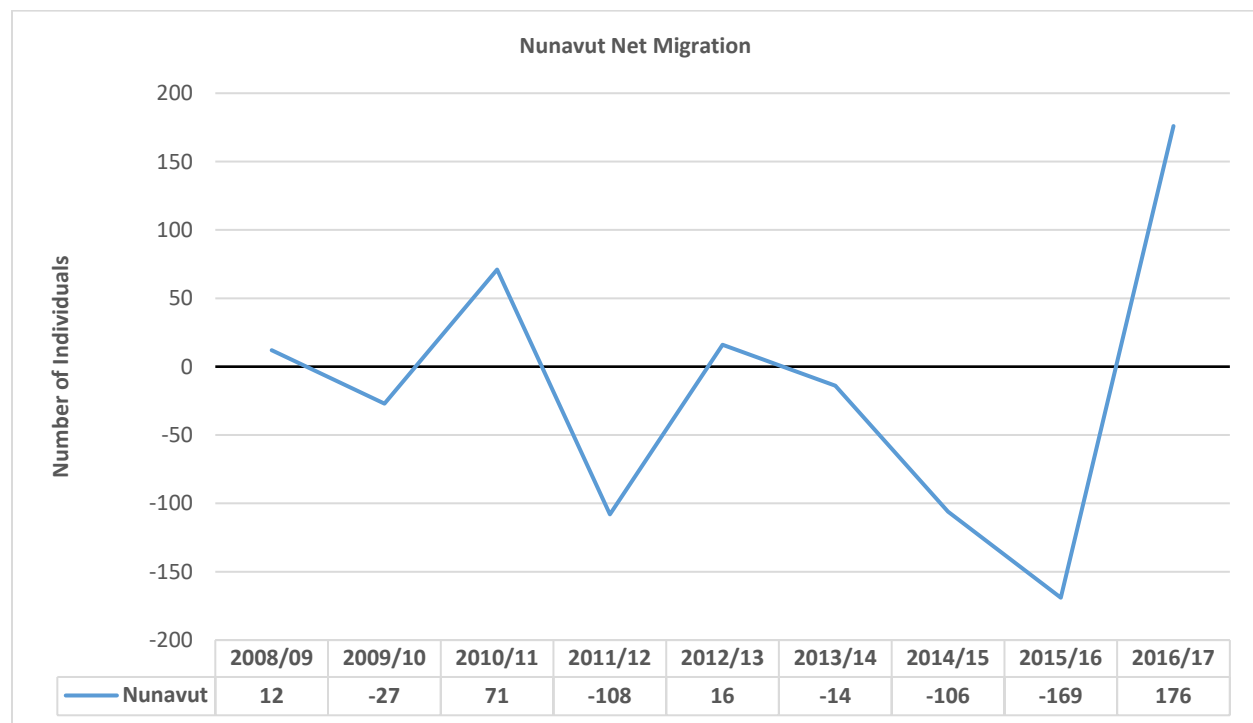


Source: Nunavut Bureau of Statistics (2016)

*Nunavut Net Migration*

Territorial annual net migration estimates provide insight into broad migration patterns that are occurring in Nunavut. Figure 3-3 displays annual net migration estimates for Nunavut from 2008/09 to 2016/17, which have been obtained from the Nunavut Bureau of Statistics (2017a). A net of 176 individuals were estimated to have migrated into Nunavut in 2016/17. Estimates for preceding years have been variable, from a net of 71 individuals migrating into Nunavut in 2010/2011, to a net of -169 individuals migrating into the territory in 2015/16. Compared to the pre-development period average, an decreasing trend in average Nunavut annual net migration has occurred in the post-development period (from -7 to -28).

**Figure 3-3: Nunavut net migration (2008/09 to 2016/17)**



Source: Nunavut Bureau of Statistics (2017a)

### 3.1.3 Analysis

The populations of the North Baffin LSA communities, Iqaluit, and Nunavut have continued to grow since Project development. The percentage of Inuit versus non-Inuit residents in the North Baffin LSA communities has also remained high (and relatively constant) since that time. A decreasing post-development trend in Nunavut annual net migration has occurred. However, no linkage to Project activities is currently evident with any of these indicators. Population growth was occurring throughout Nunavut prior to Project development, and the average percentage of Inuit versus non-Inuit residents in the North Baffin LSA communities was the same during both the pre- and post-development periods. Likewise, annual net migration estimates are currently conducted at too coarse a scale (i.e. territorial) to ascertain any Project-related influences.

## 3.2 IN-MIGRATION OF NON-INUIT PROJECT EMPLOYEES INTO THE NORTH BAFFIN LSA

### 3.2.1 Predicted Effect and Mitigation Measures

The FEIS predicted some in-migration of non-Inuit employees hired to work at the Project could occur in the North Baffin LSA but would be of low magnitude (i.e. <5% change in the non-Inuit baseline population). Mitigation developed by Baffinland includes the designation of Iqaluit and an additional southern location as 'points of hire', with free transportation provided to employees from these points of hire to the mine site.

### 3.2.2 Indicator Data

#### *Known In-Migrations of Non-Inuit Project Employees and Contractors*

Data on the movement of Project employees and contractors provides insight into potential in-migration trends occurring in the North Baffin LSA. Table 3-2 presents data on known in-migrations of Project employees and contractors to the North Baffin LSA. These data were provided by Baffinland Community Liaison Officers (BCLOs) located in each North Baffin LSA community. More specifically, the BCLOs were asked to report on the number of Project employees and contractors they knew who had moved into and out of each of their communities. BCLOs were also asked to identify whether individuals were Inuit or non-Inuit and locations where these individuals had moved to and from, if known.<sup>8</sup>

Table 3-2 indicates one Inuit employee/contractor is known to have moved into the North Baffin LSA in 2017. An additional one Inuit employee/contractor moved between North Baffin LSA communities; this individual has not been counted as a North Baffin LSA in-migrant. Zero non-Inuit employees/contractors hired to work at the Project are known to have moved into the North Baffin LSA communities in 2017.

**Table 3-2: Known in- and out-migration of Project employees and contractors in the North Baffin LSA (2015 to 2017)**

Known In- and Out-Migration of Project Employees and Contractors in the North Baffin LSA						
Year	In-Migration		Out-Migration		Inuit Net Migration	Non-Inuit Net Migration
	Inuit	Non-Inuit	Inuit	Non-Inuit		
2015	3	0	4	0	-1	0
2016	1	0	3	0	-2	0
2017	1	0	3	0	-2	0
<b>Total</b>	<b>5</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>-5</b>	<b>0</b>

Source: Baffinland

#### *In-Migration of Non-Inuit to the North Baffin LSA*

Annual in-migration data for non-Inuit North Baffin LSA residents were unavailable from the Nunavut Bureau of Statistics in 2017. However, some insight into this topic can be obtained by assessing changes in the percentage of Inuit versus non-Inuit residents in the North Baffin LSA communities since Project development. If substantial non-Inuit in-migration (as per this section) and Inuit out-migration (as per Section 3.3) were occurring because of the Project, the ratio of Inuit to non-Inuit residents in the North Baffin LSA communities would be expected to noticeably decrease. As seen in Figure 3-2, however, the percentage of Inuit residents in the North Baffin LSA communities has remained relatively constant between 2008 and 2016 (ranging between a low of 94.1% Inuit and a high of 94.7% Inuit). In fact, there has been no change in the average percentage of Inuit residents between the pre-and post-development periods (94.5%).

### 3.2.3 Analysis

The FEIS predicted a <5% change in the non-Inuit baseline population could occur in the North Baffin LSA because of Project activities. In 2012 (the baseline year selected for monitoring purposes), 5% of the

---

<sup>8</sup> Family members that may have migrated with employees were not accounted for.

North Baffin non-Inuit population would have equaled approximately 28 individuals. Cumulative Baffinland data available since 2015<sup>9</sup> indicates a net of zero non-Inuit employees/contractors have in-migrated to the North Baffin LSA. Data on changes in the percentage of Inuit versus non-Inuit residents in the North Baffin LSA communities have also failed to reveal a Project-induced trend at this time.

However, this data presents only a partial assessment of migration trends and more detailed in-migration data for the North Baffin LSA communities are currently unavailable from the Nunavut Bureau of Statistics. Furthermore, the factors involved in deciding to migrate can be complex and specific to an individual. While these limitations are acknowledged, available migration data appears to support the FEIS predictions that were made. Without significant in-migration to the North Baffin LSA occurring because of the Project, negative effects on local housing opportunities are considered negligible. In fact, wages earned through Project-related work may enable individuals in the North Baffin LSA to improve their housing situations over time (e.g. through greater capacity to rent and/or own their residence). Out-migration of residents may also help relieve some local housing strains.

### 3.3 OUT-MIGRATION OF INUIT RESIDENTS FROM THE NORTH BAFFIN LSA

#### 3.3.1 Predicted Effect and Mitigation Measures

The FEIS predicted some out-migration of Inuit residents from the North Baffin LSA could occur but would be of moderate magnitude (i.e. 1% to <5% of the total population). Mitigation developed by Baffinland includes the designation of all North Baffin LSA communities as 'points of hire', with free transportation provided to employees from these points of hire to the mine site.

#### 3.3.2 Indicator Data

##### *Known Out-Migrations of Inuit Project Employees and Contractors*

Data on the movement of Project employees and contractors provides insight into potential out-migration trends occurring in the North Baffin LSA. Table 3-2 presents data on known out-migrations of Project employees and contractors from the North Baffin LSA. As noted previously, these data were provided by BCLOs located in each North Baffin LSA community. More specifically, the BCLOs were asked to report on the number of Project employees and contractors they knew who had moved into and out of each of their communities. BCLOs were also asked to identify whether individuals were Inuit or non-Inuit and locations where these individuals had moved to and from, if known.<sup>8</sup>

Three Inuit employees/contractors are known to have moved out of the North Baffin LSA in 2017. An additional two Inuit employees/contractors moved between North Baffin LSA communities; these

---

<sup>9</sup> 2013-2014 Baffinland migration data was presented in BDSI (2015). However, comparisons with this data should be made with some caution as this report did not identify whether its migration calculations included both Inuit and non-Inuit individuals and/or both employees and contractors. Furthermore, the numbers of migrating individuals were rounded and calculated using different methods than subsequent Baffinland socio-economic monitoring reports. From 2013 to 2014, BDSI (2015) notes less than five individuals moved into the North Baffin LSA from other North Baffin LSA communities. This report also notes less than five individuals moved into the North Baffin LSA from Iqaluit during this period, while less than five individuals moved out of the North Baffin LSA to other North Baffin LSA communities. Five to ten individuals also moved from the North Baffin LSA to Iqaluit during this period, while less than five individuals moved from the North Baffin LSA to Ottawa.



individuals have not been counted as North Baffin LSA out-migrants. Zero non-Inuit employees/contractors are known to have moved out of the North Baffin LSA communities in 2017. Table 3-2 also indicates out-migration of the three Inuit employees/contractors was partially offset by the in-migration of one Inuit employee/contractor to the North Baffin LSA in 2017. Thus, a net of two Inuit employees/contractors out-migrated from the North Baffin LSA in 2017.

#### *Out-Migration of Inuit from the North Baffin LSA*

Annual out-migration data for Inuit North Baffin LSA residents were unavailable from the Nunavut Bureau of Statistics in 2017. However, some insight into this topic can be obtained by assessing changes in the percentage of Inuit versus non-Inuit residents in the North Baffin LSA communities since Project development. If substantial Inuit out-migration (as per this section) and non-Inuit in-migration (as per Section 3.2) were occurring because of the Project, the ratio of Inuit to non-Inuit residents in the North Baffin LSA communities would be expected to noticeably decrease. As seen in Figure 3-2, however, the percentage of Inuit residents in the North Baffin LSA communities has remained relatively constant between 2008 and 2016 (ranging between a low of 94.1% Inuit and a high of 94.7% Inuit). In fact, there has been no change in the average percentage of Inuit residents between the pre-and post-development periods (94.5%).

#### 3.3.3 Analysis

The FEIS predicted 1% to <5% of the total, primarily Inuit, North Baffin LSA baseline population could migrate out of the North Baffin LSA because of the Project. In 2012 (the baseline year selected for monitoring purposes), 5% of the total North Baffin LSA population would have equaled approximately 306 individuals. As mentioned previously, a net of two known Inuit employees/contractors out-migrated from the North Baffin LSA in 2017. Cumulative Baffinland data available since 2015<sup>9</sup> indicates there have been a net of five Inuit employees/contractors who have out-migrated from the North Baffin LSA. Results from the 2018 Inuit Employee Survey also complement this assessment, as no respondents indicated they had moved into or out of the North Baffin LSA in the past 12 months (see Section 3.4). Data on changes in the percentage of Inuit versus non-Inuit residents in the North Baffin LSA communities have also failed to reveal a Project-induced trend at this time.

However, this data presents only a partial assessment of migration trends and more detailed out-migration data for the North Baffin LSA communities are currently unavailable from the Nunavut Bureau of Statistics. Furthermore, the factors involved in deciding to migrate can be complex and specific to an individual. While these limitations are acknowledged, available migration data appears to support the FEIS predictions that were made. Without significant in-migration to the North Baffin LSA occurring because of the Project, negative effects on local housing opportunities are considered negligible. In fact, wages earned through Project-related work may enable individuals in the North Baffin LSA to improve their housing situations over time (e.g. through greater capacity to rent and/or own their residence). Out-migration of residents may also help relieve some local housing strains.

### 3.4 EMPLOYEE CHANGES OF ADDRESS, HOUSING STATUS, AND MIGRATION INTENTIONS

#### 3.4.1 Project Certificate Term or Condition

No specific predictions related to employee changes of address, housing status, and migration intentions were presented in the FEIS. However, Project Certificate term and condition no. 133 states:

*“The Proponent is encouraged to work with the Qikiqtaaluk Socio-Economic Monitoring Committee and in collaboration with the Government of Nunavut’s Department of Health and Social Services, the Nunavut Housing Corporation and other relevant stakeholders, design and implement a voluntary survey to be completed by its employees on an annual basis in order to identify changes of address, housing status (i.e. public/social, privately owned/rented, government, etc.), and migration intentions while respecting confidentiality of all persons involved. The survey should be designed in collaboration with the Government of Nunavut’s Department of Health and Social Services, the Nunavut Housing Corporation and other relevant stakeholders. Non-confidential results of the survey are to be reported to the Government of Nunavut and the NIRB.*

#### 3.4.2 Indicator Data

##### *Employee and Contractor Changes of Address, Housing Status, and Migration Intentions*

Baffinland has developed a voluntary Inuit Employee Survey (Appendix E) to address Project Certificate term and condition no. 133. The latest version of this survey was administered by a team consisting of Baffinland and QIA representatives at Project sites in January 2018. A total of 71 surveys were completed by Inuit employees and contractors.

Table 3-3 summarizes results pertaining to changes in employee and contractor housing situation. 18.3% of respondents indicated their housing situation had changed in the past 12 months, 62.0% indicated their housing situation had not changed in the past 12 months, and results were unknown for 19.7% of respondents ( $n=71$ ). When ‘unknown’ results are removed, 22.8% of respondents indicated their housing situation had changed in the past 12 months and 77.2% indicated it had not.

**Table 3-3: Changes in Inuit employee and contractor housing situation (2018 Inuit Employee Survey results)**

Changes in Inuit Employee and Contractor Housing Situation (2018 Inuit Employee Survey Results)		
Type of Change	Number of Respondents	Percentage of Respondents
Housing situation changed in the past 12 months	13	18.3%
Housing situation did not change in the past 12 months	44	62.0%
Unknown	14	19.7%
<b>Total</b>	<b>71</b>	<b>100.0%</b>

Source: Baffinland

Table 3-4 summarizes results pertaining to changes in Inuit employee and contractor community. 9.9% of respondents had moved to a different community in the past 12 months while 90.1% had not ( $n=71$ ). Respondents who had moved to a different community ( $n=7$ ) were then asked which community they had moved from; this result was compared against information provided on their current community of

residence. Of these respondents, 0.0% had moved either into or out of the North Baffin LSA, while 57.1% (or 5.6% of all survey responses) had moved within the North Baffin LSA. 28.6% (or 2.8% of all survey responses) had moves classified as 'other' (i.e. moves that did not involve a North Baffin LSA community) and the type of move was unknown for 14.3% (or 1.4% of all survey responses) (i.e. this individual indicated their current community of residence was in the North Baffin LSA, but later indicated they had moved to outside the North Baffin LSA).

**Table 3-4: Changes in Inuit employee and contractor community (2018 Inuit Employee Survey results)**

<b>Changes in Inuit Employee and Contractor Community (2018 Inuit Employee Survey Results)</b>		
<b>Type of Change</b>	<b>Number of Respondents</b>	<b>Percentage of Respondents</b>
<i>All survey respondents (n=71)</i>		
Moved to a different community in the past 12 months	7	9.9%
Did not move to a different community in the past 12 months	64	90.1%
<b>Total</b>	<b>71</b>	<b>100.0%</b>
<i>Moved to a different community in the past 12 months (n=7)</i>		
Moved from North Baffin LSA to outside of North Baffin LSA	0	0.0%
Moved from outside of North Baffin LSA to North Baffin LSA	0	0.0%
Moved within the North Baffin LSA	4	57.1%
Other	2	28.6%
Unknown	1	14.3%
<b>Total</b>	<b>7</b>	<b>100.0%</b>

Source: Baffinland

Table 3-5 summarizes results pertaining to current Inuit employee and contractor housing status. 5.6% of respondents lived in a private dwelling owned by them, 12.7% lived in a private dwelling owned by another individual, 4.2% were renting from a private company, 52.1% lived in public housing, 0.0% lived in other staff housing, 9.9% lived in another type of housing not listed on the survey, and results were unknown for 14.1% of respondents (n=71). When 'unknown' results are removed, 60.7% of respondents lived in public housing.

**Table 3-5: Current Inuit employee and contractor housing status (2018 Inuit Employee Survey results)**

<b>Current Inuit Employee and Contractor Housing Status (2018 Inuit Employee Survey Results)</b>		
<b>Current Housing Status</b>	<b>Number of Respondents</b>	<b>Percentage of Respondents</b>
Privately owned – Owned by you	4	5.6%
Privately owned – Owned by another individual	9	12.7%
Renting from a private company	3	4.2%
Public housing	37	52.1%
Government of Nunavut staff housing	1	1.4%
Other staff housing	0	0.0%
Other	7	9.9%
Unknown	10	14.1%
<b>Total</b>	<b>71</b>	<b>100.0%</b>

Source: Baffinland

Table 3-6 summarizes results pertaining to Inuit employee and contractor migration intentions. 16.9% of respondents intended to move to a different community in the next 12 months while 78.9% did not. Migration intentions were unknown for 4.2% of respondents (n=71). When 'unknown' results are removed, 17.7% of respondents intended to move to different community in the next 12 months and

82.4% did not. Respondents who intended to move to a different community in the next 12 months ( $n=12$ ) were then asked which community they intended to move to; this result was compared against information provided on their current community of residence. Of these respondents, 50.0% (or 8.8% of known survey responses) intended to move from the North Baffin LSA to outside of the North Baffin LSA. 0.0% intended to move from outside of the North Baffin LSA to the North Baffin LSA and 8.3% (or 1.5% of known responses) intended to move within the North Baffin LSA. 25.0% (or 4.4% of known responses) had intentions classified as 'other' (i.e. intended moves that did not involve a North Baffin LSA community) and the type of move was unknown for 16.7% (or 2.9% of known responses).

**Table 3-6: Inuit employee and contractor migration intentions (2018 Inuit Employee Survey results)**

<b>Inuit Employee and Contractor Migration Intentions (2018 Inuit Employee Survey Results)</b>		
<b>Migration Intentions</b>	<b>Number of Respondents</b>	<b>Percentage of Respondents</b>
<i>All survey respondents (n=71)</i>		
Intend to move to a different community in the next 12 months	12	16.9%
Do not intend to move to a different community in the next 12 months	56	78.9%
Unknown	3	4.2%
<b>Total</b>	<b>71</b>	<b>100.0%</b>
<i>Intend to move to a different community in the next 12 months (n=12)</i>		
Intend to move from North Baffin LSA to outside of North Baffin LSA	6	50.0%
Intend to move from outside of North Baffin LSA to North Baffin LSA	0	0.0%
Intend to move within North Baffin LSA	1	8.3%
Other	3	25.0%
Unknown	2	16.7%
<b>Total</b>	<b>12</b>	<b>100.0%</b>

Source: Baffinland

### 3.4.3 Analysis

Information obtained from Baffinland's Inuit Employee Survey in 2018 indicated some employees and contractors changed their housing situation in the past 12 months or have migration intentions. The survey also provided an overview of respondents' current housing status. More specifically, 22.8% of respondents housing situation changed in the past 12 months. 9.9% moved to a different community in the past 12 months but no one moved into or out of the North Baffin LSA. 17.7% intend to move to a different community in the next 12 months. 8.8% intend to move away from the North Baffin LSA. No individuals intend to move into the North Baffin LSA. 60.7% of respondents currently live in public housing. Surveys conducted in future years are expected to provide additional data to compare these results against.

## 3.5 EMPLOYEE ORIGIN

### 3.5.1 Project Certificate Term or Condition

No specific prediction related to employee origin was presented in the FEIS. However, Project Certificate term and condition no. 134 states:

*The Proponent shall include with its annual reporting to the NIRB a summation of employee origin information as follows:*

- a. The number of Inuit and non-Inuit employees hired from each of the North Baffin communities, specifying the number from each;*
- b. The number of Inuit and non-Inuit employees hired from each of the Kitikmeot and Kivalliq regions, specifying the number from each;*
- c. The number of Inuit and non-Inuit employees hired from a southern location or other province/territory outside of Nunavut, specifying the locations and the number from each; and*
- d. The number of non-Canadian foreign employees hired, specifying the locations and number from each foreign point of hire.*

### 3.5.2 Indicator Data

#### *Employee and Contractor Origin*

Data on the origin, number, and ethnicity of Project employees and contractors who worked on the Project in Nunavut-based positions in 2017 are presented in Table 3-7. An average of 1,572 individuals worked on the Project in 2017, of which 219 (13.9%) were Inuit. In 2017, most of the Project's Inuit employees and contractors were based in LSA communities with smaller numbers residing outside of Nunavut. Most of the Project's non-Inuit employees and contractors were based in Canadian locations outside of Nunavut, with Ontario having the greatest number. Small numbers of non-Inuit employees and contractors were based in Nunavut. There were also a small number of non-Inuit international contractors, and various employees and contractors whose origin was unknown. Within the North Baffin LSA, Pond Inlet had the greatest average number of employees and contractors (41), while Igloolik had the fewest (19). Several employees and contractors also resided in Iqaluit (55).

### 3.5.3 Analysis

The Project employed many Inuit from the LSA communities in 2017, which is a likely reflection of the Inuit hiring commitments Baffinland has made in those locations. Most non-Inuit individuals in 2017 came from Canadian provinces and territories other than Nunavut. A mine like Mary River requires many employees with various skill sets. Individuals with advanced mining and/or technical skill sets are in limited supply in Nunavut (e.g. Gregoire 2014, MacDonald 2014, MIHR 2014, Conference Board of Canada 2016). The large number of Baffinland employees from outside of Nunavut would at least partly reflect this skills gap.

**Table 3-7: Mary River Project employees and contractors by origin and ethnicity in 2017**

Mary River Project Employees and Contractors by Origin and Ethnicity in 2017																		
Origin		Baffinland								Contractors								Yearly Average
		Inuit				Non-Inuit				Inuit				Non-Inuit				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Nunavut	Arctic Bay	16	16	18	21	1	2	0	0	5	15	16	15	6	0	0	0	33
	Clyde River	11	11	13	19	4	0	0	0	5	24	29	19	5	0	0	0	35
	Hall Beach	7	12	11	8	1	0	0	0	14	28	26	27	15	1	0	0	38
	Igloolik	4	8	9	6	2	0	0	0	6	10	10	16	6	0	0	0	19
	Pond Inlet	19	18	21	19	1	1	0	0	10	17	36	20	3	0	0	0	41
	Iqaluit	9	12	12	14	2	0	0	1	21	28	31	39	20	17	7	5	55
	Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Canadian Provinces and Territories	Alberta	0	1	0	0	30	33	34	49	0	0	0	0	50	60	67	63	97
	British Columbia	0	1	1	1	24	30	31	33	1	0	0	0	27	34	59	40	71
	Manitoba	0	0	0	0	10	11	10	13	0	0	0	0	5	5	8	4	17
	New Brunswick	0	0	0	0	23	25	27	37	1	0	1	1	8	21	30	20	49
	Nfld. and Labrador	1	0	1	2	40	56	48	81	0	0	1	1	15	34	48	37	91
	Northwest Territories	0	0	0	0	1	1	1	0	0	0	0	0	3	7	12	9	9
	Nova Scotia	0	0	0	0	45	55	54	78	0	0	0	0	12	20	30	22	79
	Ontario	9	10	12	12	264	280	277	351	3	3	4	2	97	127	224	151	457
	Prince Edward Island	0	0	0	0	4	4	5	11	0	0	0	0	2	2	3	2	8
	Quebec	0	1	0	0	27	32	32	58	0	1	0	0	28	34	51	36	75
	Saskatchewan	0	0	0	0	5	3	4	3	0	0	0	0	5	3	7	4	9
	Yukon	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
International	Other	0	0	0	0	0	0	0	0	0	0	0	0	4	5	3	4	4
Unknown	Unknown	1	4	2	0	139	153	161	9	1	9	5	2	122	241	337	366	388
Quarterly Totals		77	94	100	102	623	686	684	724	67	135	159	142	433	612	887	763	
Average		93				679				126				674				
AVERAGE TOTAL		1,572																

Source: Baffinland

Notes: This table includes employees and contractors who worked on the Project in Nunavut-based positions (including community-based Baffinland positions). This table does not include individuals who worked on the Project in non-Nunavut based positions, Baffinland corporate head office staff, or off-site contractors.

## 4. EDUCATION AND TRAINING

Three residual effects for the VSEC Education and Training were assessed in the FEIS. These include improved life skills amongst young adults, incentives related to school attendance and success, and opportunities to gain skills. These are reviewed more fully below, in addition to information on one other topic requested through the Project Certificate.

### 4.1 IMPROVED LIFE SKILLS AMONGST YOUNG ADULTS

#### 4.1.1 Predicted Effect and Mitigation Measures

The FEIS predicted positive effects on life skills development amongst young adults in the LSA would arise from the Project. This would occur primarily through access to industrial work supported by pre-employment preparation and on-the-job training. Mitigation developed by Baffinland includes the provision of job readiness training, creation of a supportive work environment, a 'second chance' hiring policy, and a no drugs/no alcohol policy on site. This is in addition to other measures included in the recently finalized Inuit Human Resources Strategy (IHRS). The IHRS is a key strategic document for Baffinland and describes goals and initiatives that will be used by the Company to enhance Inuit employment, training, and skills development at the Project.

#### 4.1.2 Indicator Data

##### *Participation in Pre-Employment Training*

Participation in pre-employment training is a useful indicator of life skills development because some individuals may have lacked basic employment skills prior to participating. Baffinland successfully carried out a 'Work Ready' pre-employment training program with North Baffin LSA residents in 2012 and 2013. There were 277 graduates of the program and 150 of those graduates went on to be employed at the Project in 2013. The development of a new Work Ready Program took place over the course of 2017. Baffinland is partnering with the Mining Industry Human Resources Council (MIHR) to deliver this program, which will be 360 hours long over a 12-week period (240 hours of classroom training and 120 hours of enrichment activities). The next Work Ready Program will be held in Igloolik in Q1 2018; after this initial course is evaluated, Baffinland expects Work Ready Programs will be delivered in each North Baffin community in 2018/2019.

##### *LSA Employment and On-the-Job Training*

Employment and on-the-job training are also important components of life skills development for young adults, as they provide additional opportunities for gaining valuable experience. In 2017, approximately 313,068 hours were worked by LSA residents at the Project. Likewise, 4,024 hours of on-the-job training were delivered to Inuit in 2017. Sections 4.3 and 5.2 of this report should be reviewed for additional information on Project-related employment and on-the-job training provided in 2017.

#### 4.1.3 Analysis

In 2017, Baffinland continued to provide and/or develop various programs to support the development of life skills amongst LSA residents. These opportunities are notable, especially when considering the

lack of employment and mining-related training opportunities that have historically existed in the North Baffin LSA. Furthermore, Baffinland maintains a healthy and supportive work environment. The Company provides its permanent employees and their dependents with ongoing access to an Employee and Family Assistance Program (EFAP) and established on-site Inuit Elder positions to provide counsel and support to all Inuit Project employees.

Definitions of ‘youth’ and ‘elder’ in Inuit culture can be subjective and often based more on personal knowledge and experience rather than an exact age. While not all individuals who received pre-employment training, employment, and on-the-job training from Baffinland can be considered ‘youth’, it can reasonably be assumed that many of these individuals stood to benefit from the life skills development opportunities that were provided. It is further acknowledged that life skills development for some individuals can take time to achieve. However, there are indications positive effects on life skills development amongst young adults in the LSA continue to result from the Project, as predicted in the FEIS.

## 4.2 INCENTIVES RELATED TO SCHOOL ATTENDANCE AND SUCCESS

### 4.2.1 Predicted Effect and Mitigation Measures

The FEIS predicted the Project would have a positive effect on education and skills development across the LSA by providing incentives related to school attendance and success. While there is some potential that individuals may drop out of school or forego further education to work at the Project, the overall effect of the Project will be to increase the value of education and thereby the ‘opportunity cost’ of dropping out of school. Associated policies or mitigation measures developed by Baffinland include the establishment of a minimum age (i.e. 18) for Project employment, provision of career planning services, and priority hiring for Inuit, in addition to other measures included in the IHRS. Furthermore, Baffinland continues to support a number education and training initiatives through its donations program and Inuit Impact and Benefit Agreement (IIBA) with QIA.

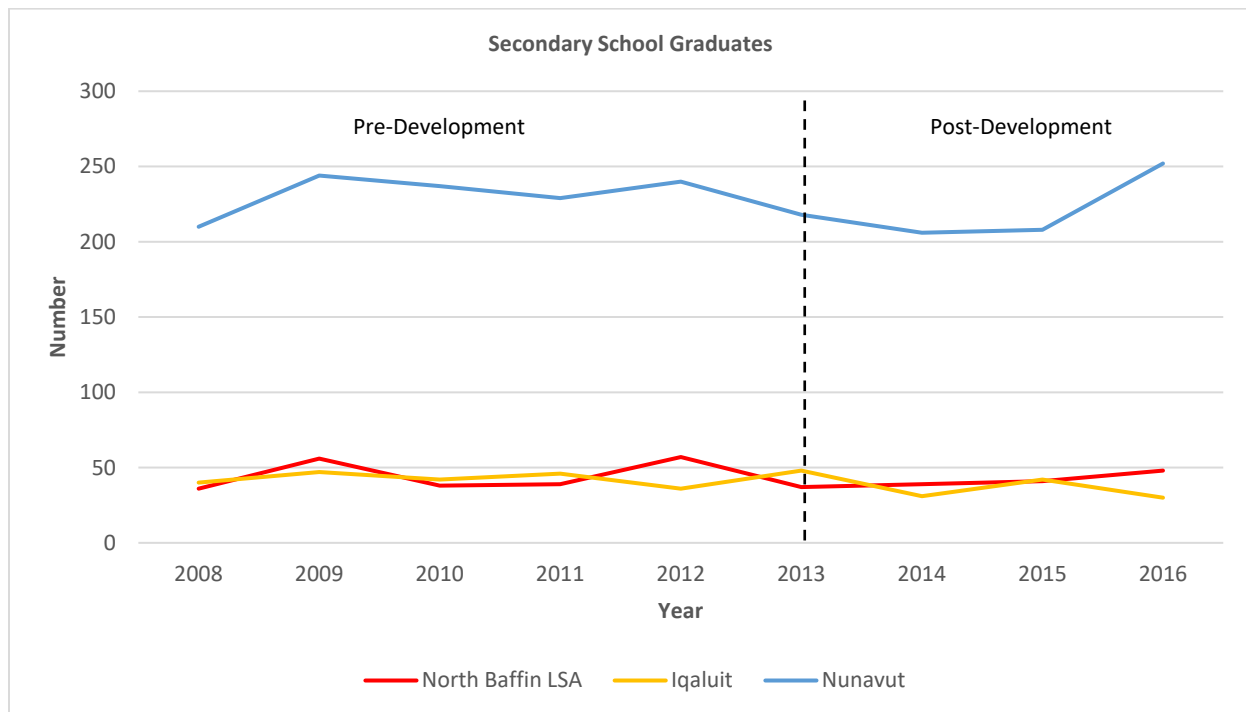
### 4.2.2 Indicator Data

#### *Number of Secondary School Graduates*

The number of secondary school graduates in the LSA is a useful indicator of school attendance and success. 2016 was the most recent year data on secondary school graduates were available from the Nunavut Bureau of Statistics (2017b). Figure 4-1 displays the number of secondary school graduates by community from 2008 to 2016. In the North Baffin LSA communities in 2016, there were 48 total graduates, up from 41 in 2015. There was a low of 2 graduates in Hall Beach and a high of 17 graduates in Igloodik in 2016. In Iqaluit, there were 30 graduates in 2016, down from 42 in 2015. Compared to pre-development period averages, there have been decreasing trends in the average number of graduates in the North Baffin LSA (from 45 to 41) and Iqaluit (from 42 to 38) in the post-development period.



**Figure 4-1: Secondary school graduates (2008 to 2016)**



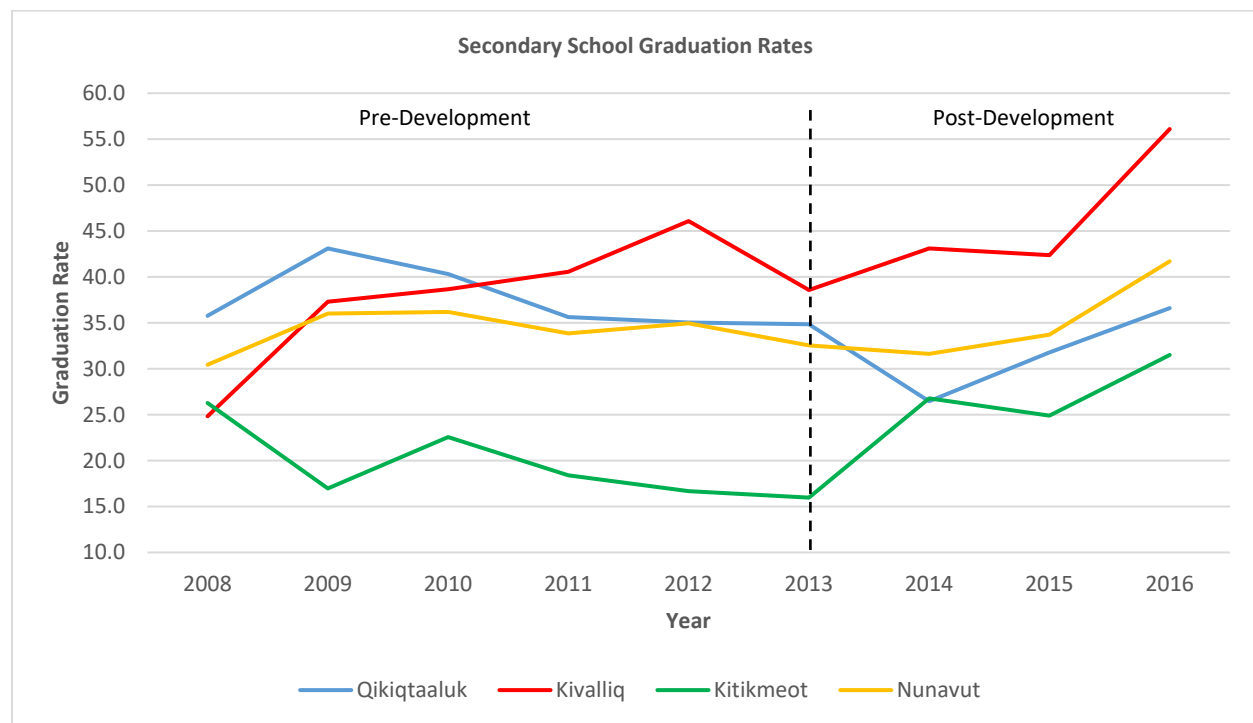
Source: Nunavut Bureau of Statistics (2017b)

### *Secondary School Graduation Rate*

Secondary school graduation rates<sup>10</sup> are another useful indicator of school attendance and success. These have been obtained from the Nunavut Bureau of Statistics (2017c) and are presented in Figure 4-2. However, data are only available for Nunavut and the Qikiqtaaluk, Kivalliq, and Kitikmeot regions. In 2016, the Kivalliq Region had the highest graduation rate in the territory (56.1), followed by the Qikiqtaaluk Region (36.6), and Kitikmeot Region (31.5). Compared to 2015, graduation rates in the Qikiqtaaluk Region were up (by 4.8). Compared to pre-development period averages, there has been a decreasing trend in average graduation rates in the Qikiqtaaluk Region (from 38.0 to 32.4) but increasing trends in the Kivalliq (from 37.5 to 45.0) and Kitikmeot Regions (from 20.2 to 24.8) in the post-development period.

<sup>10</sup> The Nunavut Bureau of Statistics (2017c) notes the 'graduation rate' is calculated by dividing the number of graduates by the average of estimated 17 and 18 year-old populations (the typical ages of graduation). 'Graduates' include students who completed secondary school but excludes those who completed equivalency or upgrading programs. Due to the small population of Nunavut, however, the Nunavut Bureau of Statistics (2017c) notes that graduation rate changes from year to year must be interpreted with caution.

**Figure 4-2: Secondary school graduation rates (2008 to 2016)**



Source: Nunavut Bureau of Statistics (2017c)

#### *Investments in School-Based Initiatives*

Baffinland continued to support several school-based initiatives through its donations program and IIBA in 2017. For example, since 2007 Baffinland has donated laptops to secondary school graduates in the North Baffin LSA communities to motivate youth to complete their high school educations. Baffinland provided 63 laptops to new grade 12 graduates in 2017 and 46 laptops in 2016. As per the IIBA, Baffinland also continues contributing to an annual scholarship fund for Nunavut Inuit (with priority given to applications from the North Baffin LSA communities). Due to certain administrative issues no scholarships were awarded in 2017; however, awards will be made in 2018. In addition, Baffinland launched a Community Literacy Initiative in September 2017. Baffinland representatives, led by CEO Brian Penney, delivered Inuktitut and English books to local schools and libraries in 2017. Baffinland representatives also spoke about the importance of education and the important role education plays in future employment opportunities in the mining industry.

#### **4.2.3 Analysis**

There have been decreasing trends in the number of graduates in the North Baffin LSA and Iqaluit in the post-development period which were not evident in the pre-development period (they were previously increasing). A comparable situation has been noted across Nunavut, which implies factors other than the Project are likely driving these trends. There has also been a decreasing trend in graduation rates in the Qikiqtaaluk Region in the post-development period which was not evident in the pre-development period (it was previously increasing). Conversely, the Kivalliq and Kitikmeot Regions have continued to experience increasing trends during the post-development period. Reasons for the lack of a similar trend in the Qikiqtaaluk Region are currently unknown.

As Project construction only began in 2013, there is minimal post-development data currently available. School attendance and success can also be influenced by many socio-economic factors. Correlations between Project effects and school attendance and success, if any, may only come to light with the analysis of additional yearly data. However, there are positive indications the Project continues to provide incentives for youth to stay in school, as predicted in the FEIS. Foremost, Project employment opportunities can motivate individuals to complete their education to improve their chances at obtaining their desired career. Baffinland also continued to make investments in school-based initiatives through its donations program and IIBA in 2017. These investments included laptop donations to secondary school graduates, ongoing scholarship commitments, and the launch of a community literacy initiative.

### 4.3 OPPORTUNITIES TO GAIN SKILLS

#### 4.3.1 Predicted Effect and Mitigation Measures

The FEIS predicted the Project would have a positive effect on education and skills development, by providing opportunities for training and skills acquisition amongst LSA residents. Mitigation developed by Baffinland includes the provision of training programs, upgrading opportunities, and career counselling to employees, in addition to other measures included in the IHRS. Furthermore, Baffinland continues to support several educational and training initiatives through its donations program and through compliance with IIBA provisions respecting training and education.

#### 4.3.2 Indicator Data

##### *Hours of Training Completed by Inuit Employees and Contractors*

The number of training hours completed by Project employees and contractors is a useful indicator of the magnitude of Baffinland's annual training efforts. Hours of site-based training completed from 2013 to 2017 by Inuit and non-Inuit are presented in Table 4-1. In 2017 this included any site-based training offered by Baffinland to employees and contractors; it did not include off-site training or training offered by contractors to their staff. In 2017, 43,397 hours of training were completed at the Project site, of which 4,024 hours (or 9.3%) were provided to Inuit. This represents an increase of 1,590 Inuit training hours compared to 2016. A total of 122,950 hours of training have been provided since Project development, of which 15,867 hours (or 12.9%) were provided to Inuit.

**Table 4-1: Hours of training completed (2013 to 2017)**

Hours of Training Completed			
Year	Inuit	Non-Inuit	Total
2013	1,283	4,555	5,838
2014	3,596	20,271	23,867
2015	4,530	17,352	21,882
2016	2,434	25,532	27,966
2017	4,024	39,373	43,397
<b>Total</b>	<b>15,867</b>	<b>107,083</b>	<b>122,950</b>

Source: Baffinland

### *Types of Training Provided to Inuit Employees and Contractors*

The types of training provided by Baffinland better reveal the full scope of learning opportunities available at the Project. Types and hours of training provided to Inuit and non-Inuit employees and contractors in 2017 are displayed in Figure 4-3. In 2017 this included any site-based training offered by Baffinland to employees and contractors; it did not include off-site training or training offered by contractors to their staff. Training programs with the highest levels of Inuit participation in 2017 included heavy equipment operator (1,803 hours), site orientation (923 hours), mobile support equipment (445 hours), and ore haul truck (121 hours). Training programs are expected to continue to evolve at the Project as operations advance, employment increases, and feedback from Inuit employees is considered.

### *Apprenticeships and Other Opportunities*

Baffinland recently began recruiting candidates for a new apprenticeship program for individuals interested in pursuing a career in the skilled trades. Baffinland is currently recruiting 26 candidates, spread across eight positions: carpenter, electrician, heavy duty mechanic, heavy equipment technician, housing maintainer, millwright, plumber, and welder. Recruits will join Baffinland as trades assistants for six months, job shadowing and learning about their prospective trade. Upon successful completion of the six-month term, candidates will write their Trades Entrance exam. Pending a pass mark being received on the exam, candidates will become full-time, permanent apprentices at Baffinland.

Baffinland and QIA were also recently successful in securing funds through Employment and Social Development Canada's (ESDC) Skills and Partnership Fund for their Qikiqtani Skills and Training for Employment Partnership (Q-STEP) training program. Q-STEP is a four-year initiative that will be undertaken by QIA in close partnership with Baffinland to provide Inuit with skills and qualifications to meet the employment needs of the Mary River Project as well as other employment opportunities in the region. The program will consist of both work readiness measures as well as targeted training programs directed at apprenticeships, skills development, supervisor training, and formal certification in heavy equipment operation. The total value of the program is \$19 million. The Government of Canada will provide \$7.9 million, Baffinland will provide \$9.4 million of in-kind support, and Kakivak Association will provide up to \$1.6 million of in-kind support. The Government of Nunavut will also offer operational support to Q-STEP.

As these programs were just getting underway in late 2017, the number of apprentices employed by Baffinland during the year was limited. In 2017, Baffinland employed one Inuit apprentice and zero non-Inuit apprentices. Likewise, zero apprenticeships were completed by Inuit or non-Inuit during 2017. By comparison, Baffinland also employed one Inuit apprentice in 2016.

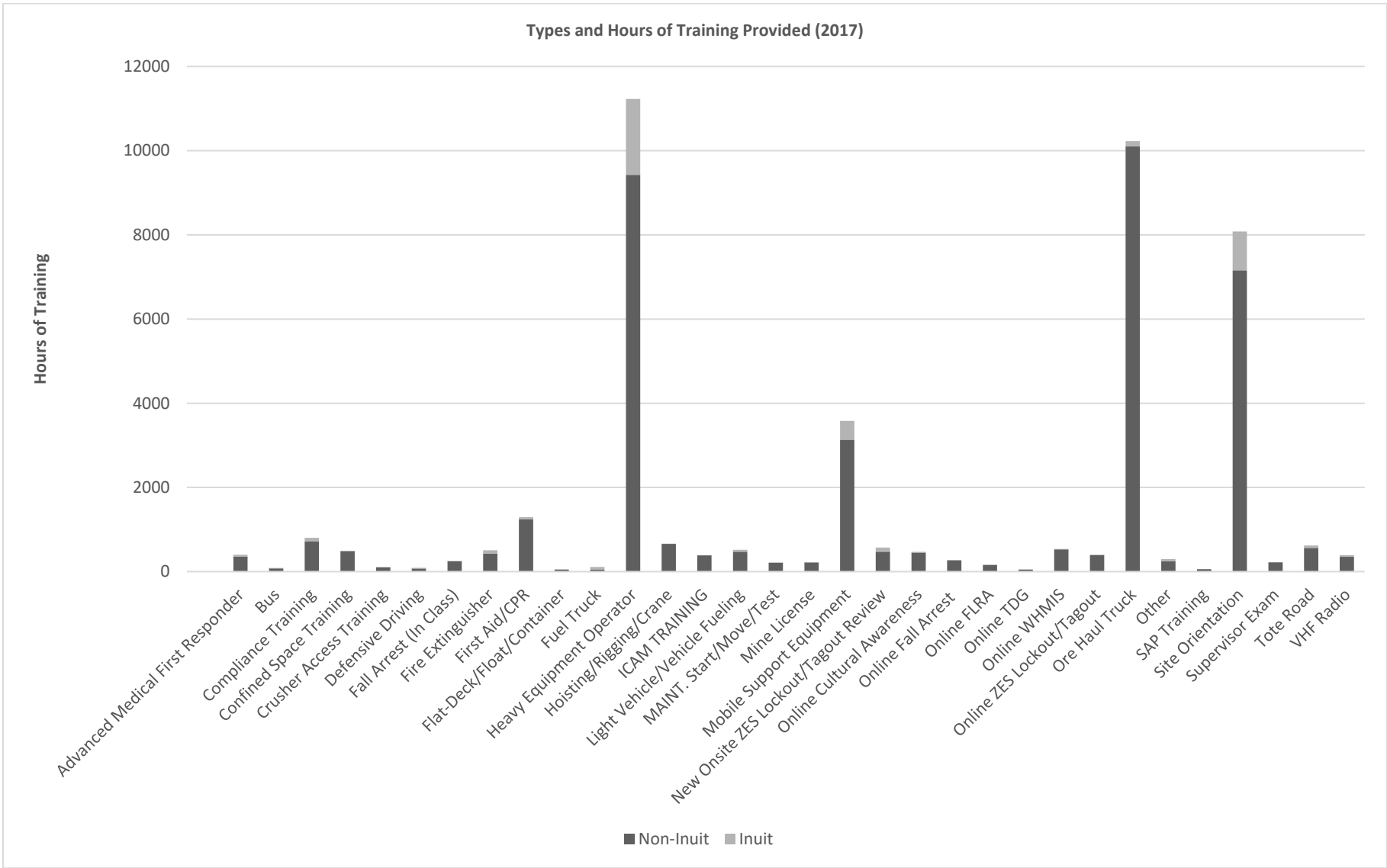
#### **4.3.3 Analysis**

The FEIS predicted positive effects on training and skills acquisition amongst LSA residents would arise from the Project. In 2017, Baffinland continued providing many training and skills development opportunities to its Inuit employees. Furthermore, Baffinland employees are regularly exposed to various 'informal' training and skills development opportunities through contact with more experienced coworkers and the process of everyday work. Several other Baffinland programs and IIBA initiatives have also contributed to the development of a more experienced Inuit workforce. For example, Baffinland delivered a 'Work Ready' pre-employment training program to local residents in 2012 and

2013 and anticipates delivering a revised version of this training in 2018. Baffinland has also committed to providing additional near-term training opportunities to LSA residents through its IHRS and the Q-STEP training program. This includes providing employee skills upgrading courses (e.g. GED, literacy and numeracy), training in apprenticeships and heavy equipment operation, and various career advancement programs for existing employees.

It is evident the Project has had a positive effect on education and skills development amongst LSA residents, as was predicted in the FEIS. The opportunities provided by the Project are notable, particularly when considering the current mining skills 'gap' that exists in Nunavut (e.g. Gregoire 2014, MacDonald 2014, MIHR 2014, Conference Board of Canada 2016).

Figure 4-3: Types and hours of training provided (2017)



Source: Baffinland. Training programs totalling >50 hours have been included under 'Other'.

#### 4.4 EDUCATION AND EMPLOYMENT STATUS PRIOR TO PROJECT EMPLOYMENT

##### 4.4.1 Project Certificate Term or Condition

No specific prediction related to employee education and employment status prior to Project employment was presented in the FEIS. However, Project Certificate term and condition no. 140 states:

*The Proponent is encouraged to survey Nunavummiut employees as they are hired and specifically note the level of education obtained and whether the incoming employee resigned from a previous job placement or educational institution in order to take up employment with the Project.*

##### 4.4.2 Indicator Data

###### *Education and Employment Status Prior to Project Employment*

Baffinland has developed a voluntary Inuit Employee Survey (see Appendix E) to address Project Certificate term and condition no. 140. The latest version of this survey was administered by a survey team consisting of Baffinland and QIA representatives at Project sites in January 2018. A total of 71 surveys were completed by Inuit employees and contractors.

Table 4-2 summarizes results on the highest level of education obtained by survey respondents. 38.0% of respondents had no certificate, diploma, or degree. 22.5% had a high school diploma or equivalent, 5.6% had an apprenticeship or trades certificate or diploma, and 4.2% had a college, CEGEP, or other non-university certificate or diploma. 0.0% had any type of university certificate, diploma, or degree, and 29.6% of respondents had unknown educational levels ( $n=71$ ). When 'unknown' results are removed, 54.0% had no certificate, diploma, or degree, 32.0% had a high school diploma or equivalent, and 14.0% had higher than a high school diploma or equivalent.

**Table 4-2: Highest level of education obtained (2018 Inuit Employee Survey results)**

Highest Level of Education Obtained (2018 Inuit Employee Survey Results)		
Highest Level of Education	Number of Respondents	Percentage of Respondents
No certificate, diploma or degree	27	38.0%
High school diploma or equivalent	16	22.5%
Apprenticeship or trades certificate or diploma	4	5.6%
College, CEGEP or other non-university certificate or diploma	3	4.2%
University certificate or diploma below bachelor level	0	0.0%
University certificate, diploma or degree - Bachelor's degree	0	0.0%
University certificate, diploma or degree above bachelor level	0	0.0%
Unknown	21	29.6%
<b>Total</b>	<b>71</b>	<b>99.9%</b>

Source: Baffinland

Notes: Total percentage may not equal 100.0% due to rounding

Table 4-3 summarizes results on the employment status of survey respondents prior to Project employment. 31.0% of respondents resigned from a previous job in order to take up employment with the Project, while 67.6% did not. Results were unknown for 1.4% of respondents ( $n=71$ ). When 'unknown' results are removed, 31.4% resigned from a previous job in order to take up employment

with the Project while 68.6% did not. Of those respondents that resigned from a previous job in order to take up employment with the Project ( $n=22$ ), 22.7% (or 7.1% of known survey responses) had casual employment status, 9.1% (or 2.9% of known responses) had part-time employment status, and 68.2% (or 21.4% of known responses) had full-time employment status.

**Table 4-3: Employment status prior to Project employment (2018 Inuit Employee Survey results)**

Employment Status Prior to Project Employment (2018 Inuit Employee Survey Results)		
Pre-Employment Status	Number of Respondents	Percentage of Respondents
<i>Did you resign from a previous job in order to take up employment with the Mary River Project? (n=71)</i>		
Yes	22	31.0%
No	48	67.6%
Unknown	1	1.4%
<b>Total</b>	<b>71</b>	<b>100.0%</b>
<i>If yes, what was your previous employment status? (n=22)</i>		
Casual	5	22.7%
Part-time	2	9.1%
Full-time	15	68.2%
<b>Total</b>	<b>22</b>	<b>100.0%</b>

Source: Baffinland

Table 4-4 summarizes results on the education status of survey respondents prior to Project employment. 9.9% of respondents were enrolled in an academic or vocational program at the time of their hire at the Project, while 81.7% were not. Results were unknown for 8.5% of respondents ( $n=71$ ). When ‘unknown’ results are removed, 10.8% of respondents were enrolled in an academic or vocational program at the time of their hire at the Project while 89.2% were not. Of those respondents that were enrolled in an academic or vocational program at the time of their hire at the Project ( $n=7$ ), 28.6% (or 3.1% of known survey responses) suspended or discontinued their education because they were hired to work at the Project while 71.4% (or 7.7% of known responses) did not.

**Table 4-4: Education status prior to Project employment (2018 Inuit Employee Survey results)**

Education Status Prior to Project Employment (2018 Inuit Employee Survey Results)		
Pre-Employment Status	Number of Respondents	Percentage of Respondents
<i>Were you enrolled in an academic or vocational program at the time of your hire at the Mary River Project? (n=71)</i>		
Yes	7	9.9%
No	58	81.7%
Unknown	6	8.5%
<b>Total</b>	<b>71</b>	<b>100.1%</b>
<i>If yes, did you suspend or discontinue your education because you were hired to work at the Mary River Project? (n=7)</i>		
Yes	2	28.6%
No	5	71.4%
<b>Total</b>	<b>7</b>	<b>100.0%</b>

Source: Baffinland

Notes: Total percentages may not equal 100.0% due to rounding

#### 4.4.3 Analysis

The employees who completed Baffinland’s Inuit Employee Survey in 2018 had varied educational and pre-employment backgrounds. 54.0% of respondents had no certificate, diploma or degree, 32.0% had



a high school diploma or equivalent, and 14.0% of respondents had higher than a high school diploma or equivalent. By comparison, data from the 2016 Census indicate the proportion of the North Baffin LSA's population (aged 25 to 64 years) with no certificate, diploma or degree was 50.8%; with a secondary school diploma or equivalency certificate was 14.4%; and with a postsecondary certificate, diploma, or degree was 36.0%. Likewise, the proportion of Nunavut's population (aged 25 to 64 years) with no certificate, diploma or degree was 40.9%; with a secondary school diploma or equivalency certificate was 14.6%; and with a postsecondary certificate, diploma, or degree was 44.4% (Statistics Canada 2017c, d, e, f, g, h).

Furthermore, 31.4% of Inuit Employee Survey respondents resigned from a previous job in order to take up employment with the Project. Nunavut's Inuit population employment rate<sup>11</sup> 3 month moving average ending in December 2017, for reference, was 47.3% (Nunavut Bureau of Statistics 2018). 3.1% of respondents also suspended or discontinued their education because they were hired to work at the Project. Baffinland will continue to track the education and employment status of its Inuit employees and contractors prior to Project employment to see if any future trends emerge. Surveys conducted in future years are expected to provide additional data to compare these results against.

---

<sup>11</sup> The Nunavut Bureau of Statistics (2009) defines 'employment rate' as the "number of employed persons expressed as a percentage of the population 15 years of age and over". 'Employed persons' are defined as those who "(a) did any work at all at a job or business, that is paid work in the context of an employer-employee relationship, or self-employment; or (b) had a job but were not at work due to factors such as own illness or disability, personal or family responsibilities, vacation, labour dispute or other reasons (excluding persons on layoff, between casual jobs, and those with a job to start at a future date)."

## 5. LIVELIHOOD AND EMPLOYMENT

Three residual effects for the VSEC Livelihood and Employment were assessed in the FEIS. These include creation of jobs in the LSA, employment of LSA residents, and new career paths. These are reviewed more fully below, in addition to information on one other topic requested through the Project Certificate.

### 5.1 CREATION OF JOBS IN THE LSA

#### 5.1.1 Predicted Effect and Mitigation Measures

The FEIS predicted the Project would have a positive effect on wage employment in the LSA by introducing new job opportunities and assisting local residents to access these jobs. A 5%+ change in baseline labour was predicted to result from the Project. Under baseline conditions, the labour market of the North Baffin LSA was estimated to generate a labour demand of 2.0 million hours per year, while the Iqaluit labour market was estimated to generate a demand of 4.7 million hours per year. 5% of these values would equal 335,000 hours per year (i.e. 100,000 hours per year in the North Baffin LSA and 235,000 hours per year in Iqaluit).

More specifically, the Project was predicted to generate a total labour demand of approximately 0.9 million hours per year during ERP operations. With the addition of the 18 Mt/a phase, annual labour demand would increase to 2.9 million hours. Labour demand during the Construction Phase would average roughly 4.1 million hours per year over a six-year period but reach a peak of approximately 7.3 million hours per year. Closure phase labour demand estimates do not currently exist but will be developed by Baffinland in the future. Mitigation developed by Baffinland includes the designation of all LSA communities as points-of-hire.

#### 5.1.2 Indicator Data

##### *Hours of Project Labour Performed in Nunavut*

Total hours of labour performed each year is a useful indicator of the Project's labour demand. It also helps reveal the extent to which new job opportunities have become available to LSA residents. Table 5-1 presents total hours of Project labour performed by employees and contractors who worked on the Project in Nunavut-based positions from 2013 to 2017. In 2017, 2,380,990 hours of labour were performed, which is equal to approximately 1,181 full time equivalent (FTE) positions.<sup>12</sup> There were 499,484 more hours of labour performed in 2017 than in 2016. A total of 8,837,636 hours of labour have been performed since Project development.

---

<sup>12</sup> FTEs are calculated assuming 2,016 hours of employment per person annually, which reflects a typical 2 week on/2 week off rotation (i.e. 24 weeks multiplied by 84 hours per week; this calculation also assumes 2 weeks holidays are taken by each employee).

**Table 5-1: Hours of Project labour performed in Nunavut (2013 to 2017)**

Hours of Project Labour Performed in Nunavut				
2013	2014	2015	2016	2017
863,177	1,867,882	1,844,081	1,881,506	2,380,990

Source: Baffinland<sup>6</sup>

Notes: This table includes employees and contractors who worked on the Project in Nunavut-based positions (including community-based Baffinland positions). This table does not include individuals who worked on the Project in non-Nunavut based positions, Baffinland corporate head office staff, or off-site contractors.

### 5.1.3 Analysis

The FEIS predicted a positive effect on the creation of jobs in the LSA would occur because of the Project. In 2017, the Project continued to generate a substantial number of employment opportunities and labour hours. The generation of 2,380,990 hours of labour in 2017 is in line with the FEIS prediction of a 5%+ change in baseline labour (i.e. at least 335,000 hours created per year). As such, the positive effect on LSA job creation predicted to occur in the FEIS is confirmed.

## 5.2 EMPLOYMENT OF LSA RESIDENTS

### 5.2.1 Predicted Effect and Mitigation Measures

The FEIS predicted the Project would have a positive effect on wage employment in the LSA by introducing new job opportunities and assisting local residents to access these jobs. The magnitude of LSA employment creation was estimated to be a 5%+ change in baseline labour. This equates to at least 335,000 hours of new employment being created per year, in a baseline environment that was estimated to create 6.7 million hours of labour per year.

More specifically, the Project was predicted to result in the employment of an estimated 300 LSA residents each year. These residents would supply approximately 342,000 hours of labour per year to the Project, of which 230,000 hours would be provided by North Baffin LSA residents and 112,000 hours would be provided by Iqaluit residents. Mitigation developed by Baffinland includes management commitments and Company policies related to Inuit hiring, and the development of Inuit employee recruitment and retention programs, in addition to other measures contained in the IHRS.

### 5.2.2 Indicator Data

#### *Project Hours Worked by LSA Employees and Contractors*

Data on the number of hours worked on the Project provides insight into the varying labour contributions of LSA and non-LSA employees and contractors. Table 5-2 summarizes the number and percentage of hours worked by individuals on the Project in Nunavut-based positions from 2013 to 2017. Table 5-2 also includes information on the origin and ethnicity of these individuals, where applicable. In 2017, 313,068 hours were worked by LSA residents (both Inuit and non-Inuit), representing 13.1% of total hours worked on the Project (i.e. 2,380,990) or approximately 155 FTEs. Of this, 229,658 hours were worked by North Baffin LSA residents (representing 9.6% of the total) and 83,410 hours were worked by Iqaluit residents (representing 3.5% of the total). Project hours worked by North Baffin LSA residents decreased (by 1,074 hours) from 2016, while Project hours worked by Iqaluit

residents increased (by 8,306 hours) from 2016. Inuit individuals worked 321,026 hours in 2017, representing 13.5% of total hours worked on the Project or approximately 159 FTEs.

### 5.2.3 Analysis

The FEIS predicted a positive effect on the employment of LSA residents would occur because of the Project. In 2017, a total of 313,068 hours were worked by LSA residents, 229,658 of which were worked by North Baffin LSA residents. While these numbers don't fully reflect the FEIS predictions (i.e. at least 335,000 hours of new employment would be created, with LSA residents potentially providing 342,000 hours of work and North Baffin LSA residents potentially providing 230,000 hours of work), Baffinland continues to refine its Inuit human resources programs and remains committed to meeting Inuit employment targets.

LSA employment and Inuit employee turnover are areas Baffinland will continue to address in 2018. This will occur in part through implementation of Baffinland's new Inuit Human Resources Strategy (IHRS) and Inuit Procurement and Contracting Strategy (IPCS). These documents describe goals and initiatives that will be used to increase Inuit employment and contracting at the Project over time. For example, the IHRS contains eight strategic directions that will assist Baffinland with meeting its Inuit employment objectives: strengthen stakeholder collaboration, engage and develop Inuit employees (current and potential), workforce readiness, Inuit recruitment and hiring, gender balance, students and youth, Inuit employee retention and advancement, and continuing improvement.

The new Baffinland Apprenticeship Program, development of a labour pool of multi-skilled Inuit Heavy Equipment Operators, and implementation of the Q-STEP training program (in conjunction with QIA) and other actions to meet the Minimum Inuit Employment Goal (MIEG, which was 25% in 2017 and will remain at 25% in 2018) should also assist with increasing LSA employment over time. However, it will likely take many years to fully realize the Project's Inuit employment potential.

Comments shared during Baffinland's 2017 community engagement program and 2017 QSEMC meeting provide additional insight into this matter. For example, one participant in a Pond Inlet community engagement meeting noted "I want to thank you Baffinland for giving jobs for jobless people, there are some people who can only be employed by Mary River. Thank you." During the community roundtable portion of the 2017 QSEMC, participants also expressed gratitude for the employment opportunities provided by the Project in LSA communities (SEMCs 2017b). Likewise, the 2016 QSEMC meeting report notes "the economic benefits of employment and contracts to local businesses have been interpreted as largely positive in the LSA" (Government of Nunavut 2016: 9). During the community roundtable portion of the April 2015 QSEMC meeting it was also noted that in Pond Inlet "the benefits of Mary River from increased employment and money in the community have been noticed and appreciated" (Government of Nunavut 2015: 16). In Igloodik it was noted that "residents and businesses have benefited from more money coming into town from Mary River employment" (Government of Nunavut 2015: 17).

Some comments related to the employment of LSA residents at the Project were also captured in a recent report commissioned by Baffinland on the experience of Inuit residents employed at the Project as perceived by employees, their spouses, managers and supervisors at Mary River. The report, *Mary River Experience – The First Three Years* (i.e. BDSI 2016: 6), notes:

*“Individuals spoke about various types of benefits arising from employment. These range from the material rewards that come with increased income, to the mental health benefits of participating on a team and having hope and plans to achieve goals, to the satisfaction associated with learning new things and having an avenue to put one’s skills to good use.”*

Insights such as these, combined with the data presented above, confirm the positive effects the Project has had on the employment of LSA residents. While the hours worked by LSA residents in 2017 don’t fully reflect FEIS predictions, Baffinland views this as a temporary situation that can be addressed through initiatives such as the IHRS, IPCS, and Q-STEP training program. Baffinland will continue to monitor LSA employment for future trends.

**Table 5-2: Hours of Project labour performed in Nunavut (2013 to 2017)**

Employee Ethnicity & Origin	Hours of Project Labour Performed in Nunavut									
	2013		2014		2015		2016		2017	
	Hours Worked	% of total (863,177)	Hours Worked	% of total (1,867,882)	Hours Worked	% of total (1,844,081)	Hours Worked	% of total (1,881,506)	Hours Worked	% of total (2,380,990)
Inuit – North Baffin LSA	125,870	14.6%	281,679	15.1%	208,278	11.3%	198,618	10.6%	217,314	9.1%
Inuit – Iqaluit	38,799	4.5%	80,796	4.3%	85,088	4.6%	51,216	2.7%	65,064	2.7%
Inuit – Other	9,696	1.1%	17,131	0.9%	37,542	2.0%	27,620	1.5%	38,648	1.6%
Inuit (Total)	174,365	20.2%	379,606	20.3%	330,908	17.9%	277,454	14.7%	321,026	13.5%
Non-Inuit – North Baffin LSA	—	—	—	—	5,114	0.3%	32,114	1.7%	12,344	0.5%
Non-Inuit – Iqaluit	—	—	—	—	9,090	0.5%	23,888	1.3%	18,346	0.8%
Non-Inuit – Other	—	—	—	—	1,498,969	81.3%	1,548,050	82.3%	2,032,496	85.4%
Non-Inuit (Total)	688,812	79.8%	1,488,276	79.7%	1,513,173	82.1%	1,604,052	85.3%	2,059,964	86.5%
Total	863,177	—	1,867,882	—	1,844,081	—	1,881,506	—	2,380,990	—

Source: Baffinland<sup>6</sup>

Notes: This table includes employees and contractors who worked on the Project in Nunavut-based positions (including community-based Baffinland positions). This table does not include individuals who worked on the Project in non-Nunavut based positions, Baffinland corporate head office staff, or off-site contractors. Data for non-Inuit LSA residents were not available for 2013 and 2014 and are included in the non-Inuit total instead.

### 5.3 NEW CAREER PATHS

#### 5.3.1 Predicted Effect and Mitigation Measures

The FEIS predicted the Project would have a positive effect on the ability of LSA residents to progress in their jobs and careers. This effect would occur because of new career paths introduced to the region, from entry-level through step-by-step advancement to higher level jobs. Mitigation developed by Baffinland includes management commitments and Company policies related to Inuit hiring and promotions, the provision of individual career support programs, and the creation of a 'second chance' hiring policy, in addition to other measures included in the IHRS.

#### 5.3.2 Indicator Data

##### *LSA Employment*

Data on the employment of LSA residents at the Project provides insight into the new career paths made available to LSA residents. This is because some Project jobs may represent an opportunity for individuals to improve their existing employment status (e.g. from unemployed to employed, from part-time to full-time, from lower-skilled to higher-skilled positions) and/or form the basis of future promotion and advancement at the Project. As noted in Section 5.2, a total of 313,068 hours were worked by LSA residents in 2017.

##### *Inuit Employee Promotions*

The number of annual Inuit employee promotions is also an important indicator of career progression at the Project. Data on Baffinland Inuit employee promotions (not including contractors) from 2014 to 2017 are presented in Table 5-3. In 2017, 3 Inuit employee promotions occurred, which is 11 fewer promotions than occurred in 2016.

**Table 5-3: Baffinland Inuit employee promotions (2014 to 2017)**

Baffinland Inuit Employee Promotions	
Year	Number of Promotions
2014	9
2015	14
2016	14
2017	3

Source: Baffinland. Includes temporary promotions. Inuit promotion data were not available for 2013.

##### *Inuit Employee Turnover*

Annual Inuit employee turnover provides additional insight into Inuit career progression. The term 'turnover' is inclusive of many different components including resignation, layoff, termination, end of contract, and retirement. High turnover indicates fewer individuals are maintaining stable employment and able to take advantage of potential advancement opportunities. Low turnover, conversely, indicates a greater number of individuals are maintaining stable employment and able to take advantage of potential advancement opportunities. Table 5-4 displays information on Baffinland Inuit employee departures from 2013 to 2017 (not including contractors).

**Table 5-4: Baffinland employee departures (2013 to 2017)**

<b>Baffinland Employee Departures</b>				
<b>Year</b>	<b>Inuit Employees</b>		<b>Non-Inuit Employees</b>	
	<b>Number of Departures</b>	<b>Turnover Rate</b>	<b>Number of Departures</b>	<b>Turnover Rate</b>
2013	9	—	—	—
2014	45	—	—	—
2015	41	—	165	—
2016	44	45%	210	39%
2017	42	45%	211	31%

Source: Baffinland

Notes: 2013 and 2014 numbers are for indeterminate employees only and information for non-Inuit employees was unavailable. Comparable employee turnover rates for 2013-2015 are not provided, due to differences in how employee numbers and departures were previously calculated by Baffinland.

In 2017, there were 42 Inuit employees whose employment with Baffinland ended for various reasons (e.g. resignation, layoff, termination, end of contract, retirement). This equates to a 45% Inuit employee turnover rate. This is higher than the 31% non-Inuit employee turnover rate documented for 2017.<sup>13</sup>

Some commonly cited reasons Inuit employees had for resigning in 2017 included family/personal issues, obtaining a job in their home community, finding rotational work difficult (particularly on family life), and the work/camp environment. Some of these reasons were similar to those provided in 2016 (i.e. family-related reasons, obtaining a job in their home community, not being happy with working at site, finding rotational work difficult, and dissatisfaction with position responsibilities). For turnover due to dismissal by Baffinland or for involuntary terminations, commonly cited reasons in 2017 included absenteeism, safety-related occurrences, being unfit for duty/performance, and not passing probation. Some of these reasons were similar to those provided in 2016 (i.e. absenteeism and not passing probation, including not passing equipment training).

### 5.3.3 Analysis

The FEIS predicted the Project would have a positive effect on the ability of LSA residents to progress in their jobs and careers. In 2017, many Inuit were employed by the Project and some were promoted to new positions. The career opportunities introduced to the region represent a positive effect of the Project and are a likely result of the mitigation measures Baffinland has developed regarding local employment.

However, there were several Baffinland Inuit employee departures in 2017. High rates of employee turnover have been an issue for other Nunavut organizations in the past, including the Government of Nunavut and Agnico Eagle Mines Limited (e.g. Bell 2012, Government of Nunavut 2014). Baffinland will continue to monitor employee turnover causes and outcomes and is committed to reducing turnover and increasing Inuit employment where feasible.

<sup>13</sup> The employee turnover rate has been calculated using guidance provided by Taylor (2002). For example, the 2017 Inuit employee turnover rate was calculated by dividing the total number of Inuit employee departures in the calendar year (42) by the average number of Inuit employees employed in the same calendar year (93 – see Table 3-7), multiplied by 100.



Baffinland's recently finalized IHRS contains several initiatives aimed at reducing turnover. The overriding goal of these initiatives is to ensure Inuit employees are provided with the necessary support to acclimate to life at site. For example, Baffinland has committed to reviewing onboarding procedures to ensure that expectations are clearly communicated and that Inuit employees, like all other employees, are made fully aware of workplace conditions and support resources, such as the Inuit Elders on site. In addition, Baffinland has committed to ensuring Inuit culture and values are respected and that use of Inuktitut at site will be supported, subject to considerations of employee safety. Consideration will also be given to modification of work rotation cycles to enable Inuit to participate in traditional activities. To reduce the stress of familial separation, Baffinland has further noted it will expand existing tools of family communication (phone and internet), including the introduction of Skype. Future monitoring will be necessary to track the success of these and other Baffinland programs.

#### 5.4 BARRIERS TO EMPLOYMENT FOR WOMEN

##### 5.4.1 Project Certificate Term or Condition

No specific prediction related to barriers to employment for women was presented in the FEIS. However, Project Certificate term and condition no. 145 states:

*The Proponent is encouraged to work with the Government of Nunavut and the Qikiqtaaluk Socio-Economic Monitoring Committee to monitor the barriers to employment for women, specifically with respect to childcare availability and costs.*

##### 5.4.2 Indicator Data

###### *Hours Worked by Female Employees and Contractors*

The number of hours worked by female employees and contractors at the Project provides insight into potential employment barriers females may face compared to their male counterparts. Table 5-5 displays the hours (and percentage of hours) worked by women and men on the Project in Nunavut-based positions from 2013 to 2017. In 2017, 162,550 hours (or 6.8% of total hours worked on the Project) were worked by women, which is 11,422 hours more than documented for 2016. The percentage of hours worked by Inuit and non-Inuit women in 2017 were similar (3.6% and 3.2%, respectively). However, the percentage of hours worked by Inuit women compared to Inuit males on the Project (approximately 26.8% of this total) was much higher than non-Inuit women compared to non-Inuit males (approximately 3.7% of this total) in 2017. A similar trend was noted from 2013 to 2016.

###### *Childcare Availability and Costs*

Appropriate community-level indicator data are currently unavailable for this topic. As such, this topic continues to be tracked through the QSEMC process and Baffinland's community engagement program. Should new indicators be required in the future, they will be selected in consultation with the SEMWG.

Comments on the lack of childcare in LSA communities and the barriers to employment it creates have been made previously by Project stakeholders (e.g. JPCSL 2017). Some stakeholder comments on childcare were also expressed during the 2017 QSEMC meeting in Arctic Bay. For example, the need for more childcare in local communities was raised by meeting participants during both the community

roundtable and Project-focused portions of the QSEMC. The lack of childcare in local communities was also said to be a cause of employee turnover at the Project (SEMCs 2017b). One comment related to childcare availability and costs was recorded during Baffinland's 2017 community engagement activities:

*...can the community request funding for the community infrastructure, let's say, day care facilities, if it's needed? [2017 IIBA Annual Project Review Forum Participant]*

It's acknowledged that securing access to adequate child care remains an issue in some parts of Nunavut and can act as a barrier to employment for women (e.g. Pauktuutit et al. 2014; Sponagle 2016). The national non-profit organization representing Inuit women in Canada, Pauktuutit (undated), further notes "an additional barrier for [Inuit] women attaining lasting, full-time employment is inadequate childcare facilities for rotational work schedules".

In any case, the Project has helped address some issues associated with childcare costs. Project incomes can provide employees with enhanced financial capacity that may make childcare more affordable. Furthermore, a new parental subsidy for daycare was recently announced by the QIA that is funded in part by the Mary River Project, through the *QIA Legacy Fund* and *QIA Benefits Fund*.<sup>14</sup> This \$5/day subsidy is available to Qikiqtani families registered with the Nunavut Agreement who have a child enrolled in a licenced childcare facility and is a top-up to the existing Kakivak subsidy of up to \$19/day. The subsidy provides assistance for approximately 250 childcare spaces, is worth up to \$1,250/child per year in savings to Qikiqtani parents and represents a total investment of \$312,500/year by QIA. The subsidy will be offered until March 2019 and may be renewed upon QIA board approval (QIA 2017b).

Baffinland also supports two funds established under the IIBA which could potentially be accessed to provide additional supports to community daycares or child care services in the LSA. While Baffinland makes significant financial contributions to these funds, they are administered solely and exclusively by the QIA. The funds include the Ilagiiktunut Nunalinnullu Pivalliajutisait Kiinaujat (INPK) Fund (which provides up to \$750,000/year for projects in the Qikiqtaaluk Region which enhance community wellness) and the Business Capacity and Start-Up Fund (which provides up to \$250,000/year to Designated Baffin Inuit Firms to help with start-up capital and financing, management development, ongoing business management, financial management, contracts and procurement or human resources management).

---

<sup>14</sup> The *QIA Legacy Fund* is designed to invest money for the future and help reduce Inuit reliance on outside funding over time by creating an internal pool of revenue for benefits and programs. It has been designed to ensure that revenues placed in it are never used for QIA operational purposes, thereby protecting long-term benefits for Inuit. Money that QIA will invest into the Legacy Fund includes IIBA payments from major projects such as the Mary River Project, money received from NTI from the mining of Inuit owned minerals, money received from sand and gravel projects on Inuit owned land, dividends from Qikiqtaaluk Corporation and the Nunasi Corporation, money received from any investments of the Legacy Fund, and surplus revenues from the QIA's Economic Development Fund, which is designed to receive money from licenses and leases on Inuit Owned Land. The *QIA Benefits Fund* is used to deliver programs to Inuit. As the Legacy Fund grows, revenues from it go to the Benefits Fund to increase programs for Inuit. The Benefits Fund is designed to receive annual payments from the Legacy Fund so that QIA can ensure a stable base of funding to run programs even if revenues change over time. The fund also allows for programs to expand in the future as the invested money grows (QIA 2017a).

### 5.4.3 Analysis

While Baffinland has continued to encourage the employment of women at the Project, women worked considerably fewer hours on the Project (approximately 6.8% of the total) than their male counterparts in 2017. However, women remain under-represented in the Canadian mining industry as a whole. The Mining Industry Human Resources Council (2016) notes women comprise only 17% of the total Canadian mining workforce, which is significantly lower than the total participation of women in the general Canadian workforce, at 48%. Indigenous women are also less likely than non-Indigenous women to be employed in Canada (Arriagada 2016).

Employment levels can be influenced by many factors, including the existence of barriers faced by certain demographic groups. While Baffinland will continue to track this issue in future socio-economic monitoring reports, it's apparent women continue to face barriers to employment in the Canadian mining industry as a whole. Inadequate access to childcare in the LSA may also be creating some barriers to increased employment of women at the Project. However, the new employment opportunities being created for women in the LSA because of the Project should be acknowledged. Baffinland's financial contributions to various funds and initiatives in the LSA also represent a positive Project effect.

Article 7.15 of the IIBA further obligates Baffinland to implement human resources policies that ensure equal access to employment for both genders. Focused on providing ongoing opportunities to women, the IHRS has established a series of additional priorities for Baffinland over at least the next five years. These include policy review and revision to support the principle of equal access to employment opportunities and to eliminate gender biases, development of recruitment and selection processes to encourage employment applications from Inuit women, development of training programs specifically targeted to Inuit women to prepare them for non-traditional occupations, inclusion of gender sensitivity training as part of employee orientation, and other commitments. Through its annual workplace survey, Baffinland also solicits opinions on workplace conditions for female staff. The results of this survey are reviewed jointly by Baffinland and QIA for potential performance enhancement opportunities in this area.

**Table 5-5: Hours worked by Project employees and contractors in Nunavut, by ethnicity and gender (2013 to 2017)**

Hours Worked by Project Employees and Contractors in Nunavut, by Ethnicity and Gender											
Employee Ethnicity & Gender		2013		2014		Q4 2015 (see notes)		2016		2017	
		Hours Worked	% of total (863,177)	Hours Worked	% of total (1,867,882)	Hours Worked	% of total (430,244)	Hours Worked	% of total (1,881,506)	Hours Worked	% of total (2,380,990)
Inuit	Male	124,754	14.5%	267,169	14.3%	54,794	12.7%	208,592	11.1%	235,038	9.9%
	Female	49,611	5.8%	112,437	6.0%	20,732	4.8%	68,862	3.7%	85,988	3.6%
Non-Inuit	Male	639,468	74.1%	1,394,204	74.6%	336,124	78.1%	1,521,786	80.9%	1,983,402	83.3%
	Female	49,200	5.7%	94,072	5.0%	18,594	4.3%	82,266	4.4%	76,562	3.2%
<b>TOTAL</b>		<b>863,177</b>	—	<b>1,867,882</b>	—	<b>430,244</b>	—	<b>1,881,506</b>	—	<b>2,380,990</b>	—

Source: Baffinland<sup>6</sup>

Notes: This table includes employees and contractors who worked on the Project in Nunavut-based positions (including community-based Baffinland positions). This table does not include individuals who worked on the Project in non-Nunavut based positions, Baffinland corporate head office staff, or off-site contractors. As Baffinland's human resources data management system was in the process of being developed, some information gaps were unable to be reconciled in 2015. In 2015, gender data related to hours worked was only available for Q4.

## 6. CONTRACTING AND BUSINESS OPPORTUNITIES

Two residual effects for the VSEC Contracting and Business Opportunities were assessed in the FEIS. These include expanded market for business services to the Project and expanded market for consumer goods and services. These are reviewed in more detail below.

### 6.1 EXPANDED MARKET FOR BUSINESS SERVICES TO THE PROJECT

#### 6.1.1 Predicted Effect and Mitigation Measures

The FEIS predicted the Project would have a positive effect on creating market opportunities for businesses in the LSA and RSA to supply goods and services to the Project. Mitigation designed by Baffinland includes the implementation of several Inuit contracting policies, and the development of the IPCS. These have been designed to give Inuit firms preferential treatment and assistance in the contract bidding process. Baffinland's IIBA with the QIA also includes provisions related to local business development. For example, a Business Capacity and Start-Up Fund has been created (which is administered by Kakivak, a subsidiary of the QIA) to assist Designated Baffin Inuit Firms. This fund provides up to \$500,000 annually to help with start-up capital and financing, management development, ongoing business management, financial management, contracts and procurement or human resources management.

#### 6.1.2 Indicator Data

##### *Value of Procurement with Inuit-Owned Businesses and Joint Ventures*

The value of Project-related procurement with Inuit-owned businesses and joint ventures is a useful indicator of the business opportunities created by the Project. Table 6-1 summarizes the procurement that has occurred with Inuit-owned businesses and joint ventures from 2013 to 2017. Approximately \$387.2 million in contracts were awarded to Inuit-owned businesses and joint ventures in 2017. Of a total 18 contracts awarded to Inuit-owned businesses and joint ventures, all were awarded in the LSA. Procurement values in 2017 were higher than in 2016 by \$322.8 million. Total procurement (with Inuit *and* non-Inuit firms) in 2017 totaled \$1,068.0 million. Since Project development, a total of \$819.1 million worth of contracts has been awarded to Inuit-owned businesses and joint ventures. The differing values in Table 6-1 are at least partly reflective of the construction activities that have occurred during varying periods on site (e.g. 2013 was a major construction year) and the transition to increased operational activities that occurred in 2015.

#### 6.1.3 Analysis

The Project continued to procure substantial goods and services from Inuit-owned businesses and joint ventures in 2017. Likewise, Baffinland procurement data suggests the Project has had an overall positive effect on creating market opportunities for businesses in the LSA and RSA to supply goods and services to the Project, as was predicted in the FEIS. Baffinland also recently finalized its IPCS with the QIA, which is expected to further enable (if not enhance) the provision of these business opportunities.

**Table 6-1: Procurement with Inuit-owned businesses and joint ventures (2013 to 2017)**

Procurement with Inuit-Owned Businesses and Joint Ventures					
Procurement Details	Year				
	2013	2014	2015	2016	2017
Value of Procurement with Inuit-Owned Businesses and JVs	\$200 million	\$64 million	\$103.5 million	\$64.4 million	\$387.2 million
Total Number of Contracts with Inuit-Owned Businesses and JVs	13	19	12	9	18
Number of Contracts with Inuit-Owned Businesses and JVs in the LSA	6	3	5	9	18

Source: Baffinland

## 6.2 EXPANDED MARKET FOR CONSUMER GOODS AND SERVICES

### 6.2.1 Predicted Effect and Mitigation Measures

The FEIS predicted the Project would expand the market for consumer (i.e. non-Project related) goods and services across the LSA. While no specific mitigation measures related to this prediction were proposed in the FEIS, Company commitments related to Inuit employment and contracting support the development of an expanded market for consumer goods and services in the LSA. This is because of the increased purchasing power local residents are expected to have due to Project-induced direct and indirect employment income.

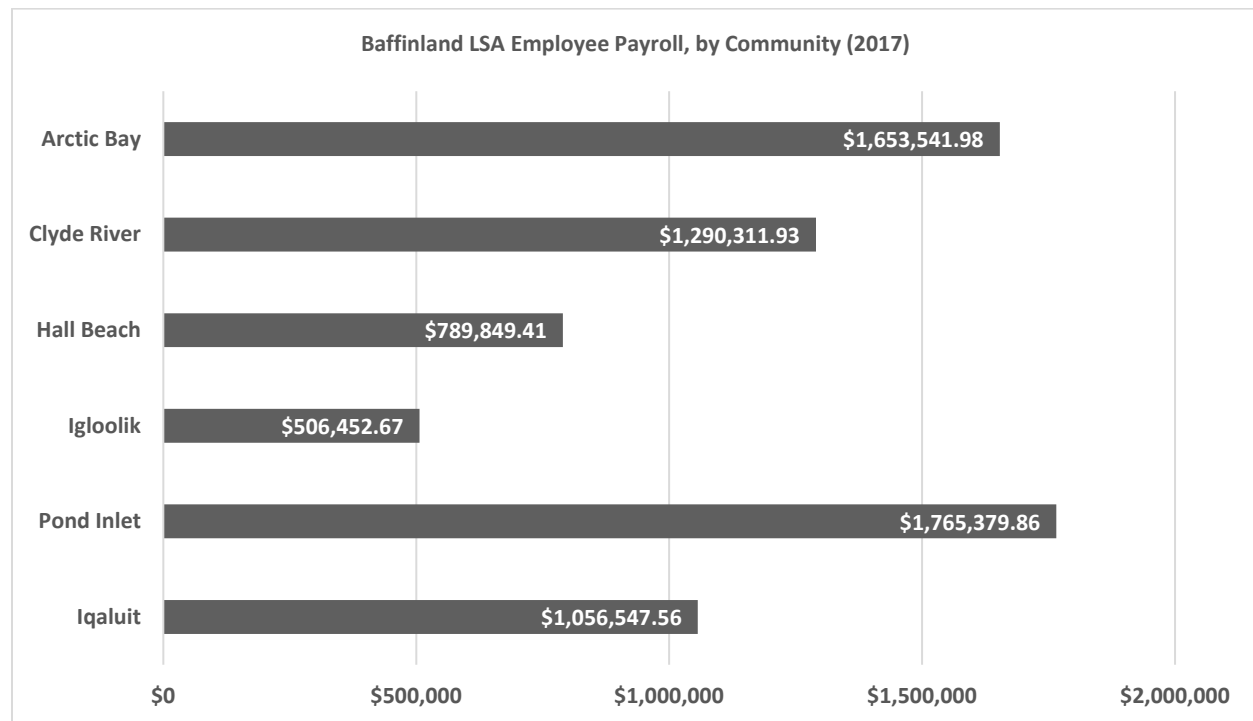
### 6.2.2 Indicator Data

#### *LSA Employee Payroll Amounts*

Yearly payroll expenditures to LSA employees are a useful indicator of the degree to which an expanded market for consumer goods and services has been created by the Project. Through the creation of new jobs in the LSA, the Project has also created a new source of economic wealth for local residents. It is reasonable to expect some of this new wealth will become available for residents to spend on consumer goods and services.

Baffinland's LSA employee payroll expenditures (in Canadian dollars, not including contractors, but including both Inuit and non-Inuit employees) totaled \$7,062,083.41 in 2017. Compared to 2016, this was a decrease of \$524,295.59. While contractor wages are not included in these amounts, the value of procurement with Inuit-owned businesses and joint ventures in 2017 was nevertheless substantial (\$387.2 million, as described in Section 6.1) and represents another important benefit provided by the Project. Figure 6-1 displays the proportion of Baffinland's employee payroll earned by each LSA community in 2017. The top three LSA payroll recipient communities in 2017 were Pond Inlet, Arctic Bay, and Clyde River (in 2016 they were Arctic Bay, Pond Inlet, and Clyde River). The highest earning community (Pond Inlet) received \$1,765,379.86, while the lowest earning community (Igloolik) received \$506,452.67 in 2017. Baffinland's Inuit employee payroll (including LSA and non-LSA communities) is also notable and totaled \$8,313,897.59 in 2017. Since 2014, Baffinland has provided \$33,261,365.59 in payroll to Inuit.

**Figure 6-1: Baffinland LSA employee payroll, by community (2017)**



Source: Baffinland

#### *Number of Registered Inuit Firms in the LSA*

The number of registered Inuit firms in the LSA is another useful indicator of the degree to which an expanded market for consumer goods and services may have been created by the Project. This is because new Project-generated consumer discretionary income would be expected to result in increased demand for (and spending on) local goods and services. Subsequently, the number and offerings of local businesses would be expected to increase to meet this demand.

Nunavut Tunngavik Incorporated (NTI) maintains an Inuit firm<sup>15</sup> registry database for Nunavut. This database (i.e. NTI 2017) provides the name of each registered Inuit firm, describes each firm's area of business operations, and location where the firm is based. The number of registered Inuit firms in the LSA from 2013 to 2017 is summarized in Table 6-2. Information for 2013 to 2015 was obtained directly from NTI personnel (E. Eegeesiak 2016, personal communication), while information for 2016 to 2017 was obtained from the NTI database (i.e. NTI 2017).

In 2017, a total of 153 active Inuit firms were registered with NTI in the LSA. 44 of these firms were based in the North Baffin LSA communities and 109 were based in Iqaluit. The number of active Inuit firms registered in the North Baffin LSA communities has increased by 15 since 2013, while the number of active Inuit firms registered in Iqaluit has increased by 40 since 2013.

<sup>15</sup> As noted by NTI (2017), 'Inuit firm' means an entity which complies with the legal requirements to carry on business in the Nunavut Settlement Area, and which is a limited company with at least 51% of the company's voting shares beneficially owned by Inuit, or a cooperative controlled by Inuit, or an Inuk sole proprietorship or partnership.

**Table 6-2: NTI registered Inuit firms in the LSA (2013 to 2017)**

Location	NTI Registered Inuit Firms in the LSA				
	Number of Firms				
	2013	2014	2015	2016	2017
North Baffin LSA Communities	29	29	31	40	44
Iqaluit	84	108	95	116	109
<b>Total</b>	<b>113</b>	<b>137</b>	<b>126</b>	<b>156</b>	<b>153</b>

Source: Nunavut Tunngavik Incorporated

### 6.2.3 Analysis

The Project continued to expand the market for consumer goods and services across the LSA in 2017. Considerable amounts were spent both on Baffinland's LSA employee payroll (approximately \$7.06 million) and contracting with Inuit-owned businesses and joint ventures (approximately \$387.2 million) in 2017. These new contributions to the Nunavut economy are a direct result of Project development and represent a positive effect. This is because increased income from direct and indirect Project employment provides LSA residents with a greater capacity to purchase local goods and services. Increased income can also stimulate further business growth (e.g. existing businesses may expand to meet increased consumer demand or new businesses may emerge, wealth generated through employment may increase an individual's ability to start new businesses).

The number of active Inuit firms registered in the LSA communities also increased between 2013 and 2017, which suggests a potential positive Project effect. Anecdotal evidence shared with Baffinland by its suppliers indicates at least some new Inuit firms were registered because of Project-related contracting opportunities. However, it's acknowledged that many factors may contribute to the decision to start (or not start) a new business.

As predicted in the FEIS, the positive effect of the Project on creating an expanded market for consumer goods and services across the LSA is confirmed for this reporting period. It is possible that continued monitoring may uncover additional positive Project effects (e.g. it may take an extended period for some businesses to respond to emerging commercial opportunities); this matter will be assessed further in future reports.



## 7. HUMAN HEALTH AND WELL-BEING

Six residual effects for the VSEC Human Health and Well-Being were assessed in the FEIS. These include changes in parenting, household income and food security, transport of substances through Project sites, affordability of substances, attitudes toward substances and addictions, and absence from the community during work rotation. These are reviewed more fully below, in addition to information on seven other topics requested through the Project Certificate.

### 7.1 CHANGES IN PARENTING

#### 7.1.1 Predicted Effect and Mitigation Measures

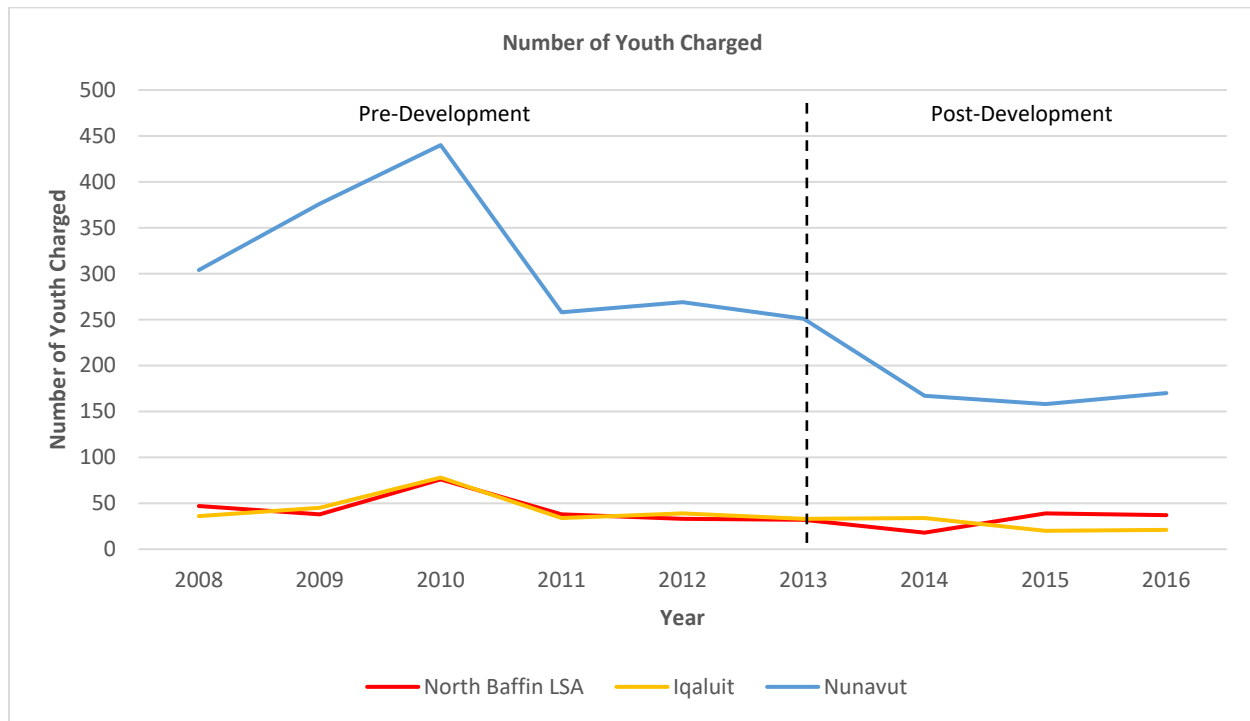
The FEIS predicted the Project would have a positive effect on parenting (particularly as it applies to well-being of children) in the LSA communities (e.g. from increased confidence and financial independence gained through employment, improved mental well-being from having a job and income). The FEIS also predicted the Project could have some negative effects on parenting, but these would be of a non-significant nature. To help mitigate potential adverse effects from fly-in/fly-out employment, Baffinland has provided a predictable rotational schedule, meaningful local employment and incomes, job readiness training for LSA residents considering employment at the Project (e.g. to familiarize workers and their families with the fly-in/fly-out lifestyle), has implemented an EFAP for permanent employees and their dependents, and contributes to the INPK fund through the IIBA negotiated with QIA (which provides up to \$750,000/year for projects in the Qikiqtaaluk Region which enhance community wellness).

#### 7.1.2 Indicator Data

##### *Number of Youth Charged*

The number of youth charged is a useful indicator of parenting performance in the LSA communities. This is because children with stable homes and effective parents can be expected to have fewer encounters with the law. 2016 was the most recent year data on the number of youth charged were available from Statistics Canada (2017a). In the North Baffin LSA in 2016, Igloodik had the highest number of youth charged (20), while Clyde River had the fewest (0). The average number of youth charged in the North Baffin LSA communities in 2016 was 7.4. Iqaluit had 21 youth charged in 2016 and Nunavut had 170. Compared to the previous year (2015), there has been a decrease in the number youth charged in the North Baffin LSA communities (by 2) but increases in Iqaluit (by 1) and Nunavut (by 12). Compared to pre-development period averages, there have been decreasing trends in the average number of youth charged in the North Baffin LSA (from 46 to 32) and Iqaluit (from 46 to 27), and Nunavut (from 329 to 187) in the post-development period. Figure 7-1 displays the number of youth charged from 2008 to 2016.

**Figure 7-1: Number of youth charged (2008 to 2016)**



Source: Statistics Canada (2017a)

### 7.1.3 Analysis

While there have been decreasing trends in the number of youth charged in the North Baffin LSA and Iqaluit in the post-development period, these trends were also evident in the pre-development period. A comparable situation has been noted across Nunavut, which implies factors other than the Project are likely driving these trends. However, crime rates can be influenced by many socio-economic factors. As Project construction only began in 2013, there is minimal post-development data currently available. Correlations between the Project and youth crime rates, if any, may only come to light with the analysis of additional annual data. Regardless, there are positive indications the Project is contributing to the enhanced well-being of children, by providing LSA residents (and parents) with opportunities to obtain meaningful employment and incomes. These opportunities can help reduce the various family stresses and uncertainties associated with un- and under-employment. Baffinland has also implemented an EFAP for permanent employees and their dependents who may require family-related or other forms of personal assistance.

## 7.2 HOUSEHOLD INCOME AND FOOD SECURITY

### 7.2.1 Predicted Effect and Mitigation Measures

The FEIS predicted the Project would have a positive effect on increased household income and food security (particularly as they apply to well-being of children) in the LSA. To help mitigate potential adverse effects, Baffinland has provided meaningful local employment and incomes, job readiness training for LSA residents considering employment at the Project (e.g. which has included a financial management module), and contributes to the INPK fund through the IIBA negotiated with the QIA.

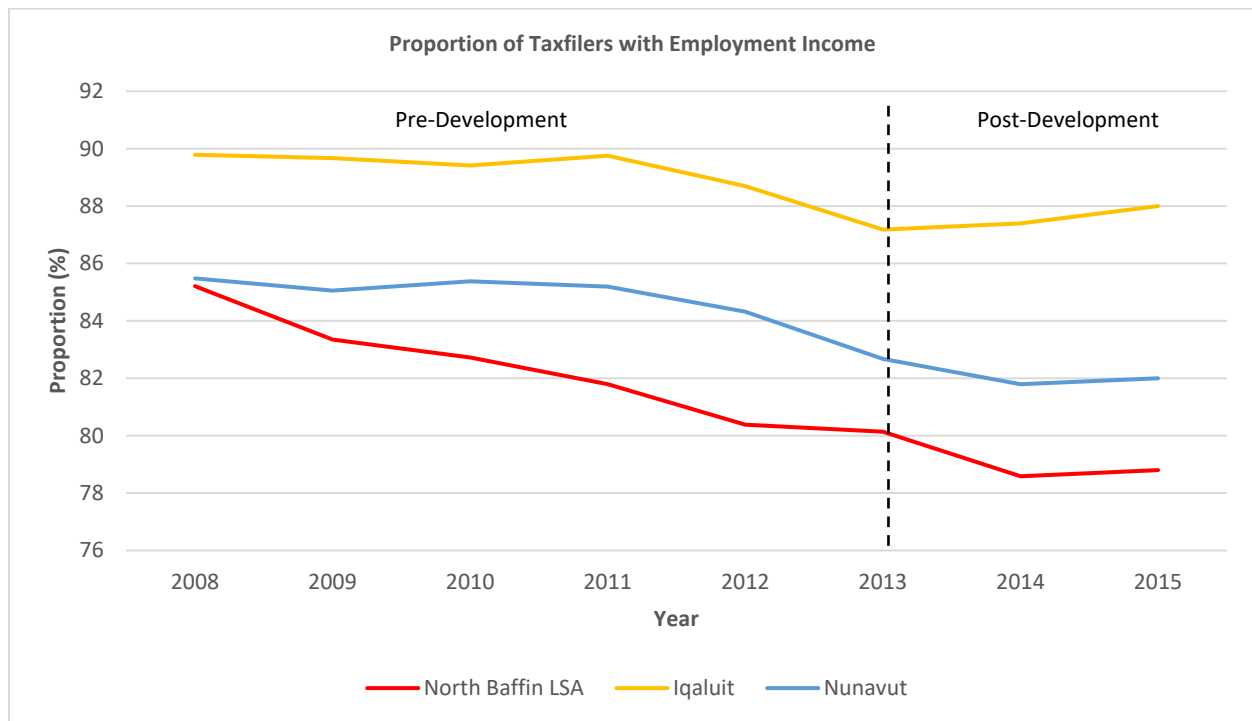
### 7.2.2 Indicator Data

#### *Proportion of Taxfilers with Employment Income and Median Employment Income*

Employment income indicators are useful for tracking household financial performance in the LSA communities. 2015 was the most recent year data on the proportion of taxfilers with employment income were available from the Nunavut Bureau of Statistics (2017d). In the North Baffin LSA in 2015, Arctic Bay had the highest proportion of taxfilers with employment income (82%), while Hall Beach had the lowest (76%). The proportion of taxfilers with employment income in Iqaluit in 2015 was 88%, which was higher than the North Baffin LSA community average (79%) and Nunavut average (82%). Compared to the previous year (2014), there has been no change in the average proportion of taxfilers with employment income in the North Baffin LSA (79%) and Nunavut (82%), while Iqaluit has seen an increase (by 1%). Compared to pre-development period averages, there have been decreasing trends in the average proportion of taxfilers with employment income in the North Baffin LSA (from 83% to 79%), Iqaluit (from 89% to 88%), and Nunavut (from 85% to 82%) in the post-development period. Figure 7-2 displays the proportion of taxfilers with employment income from 2008 to 2015.

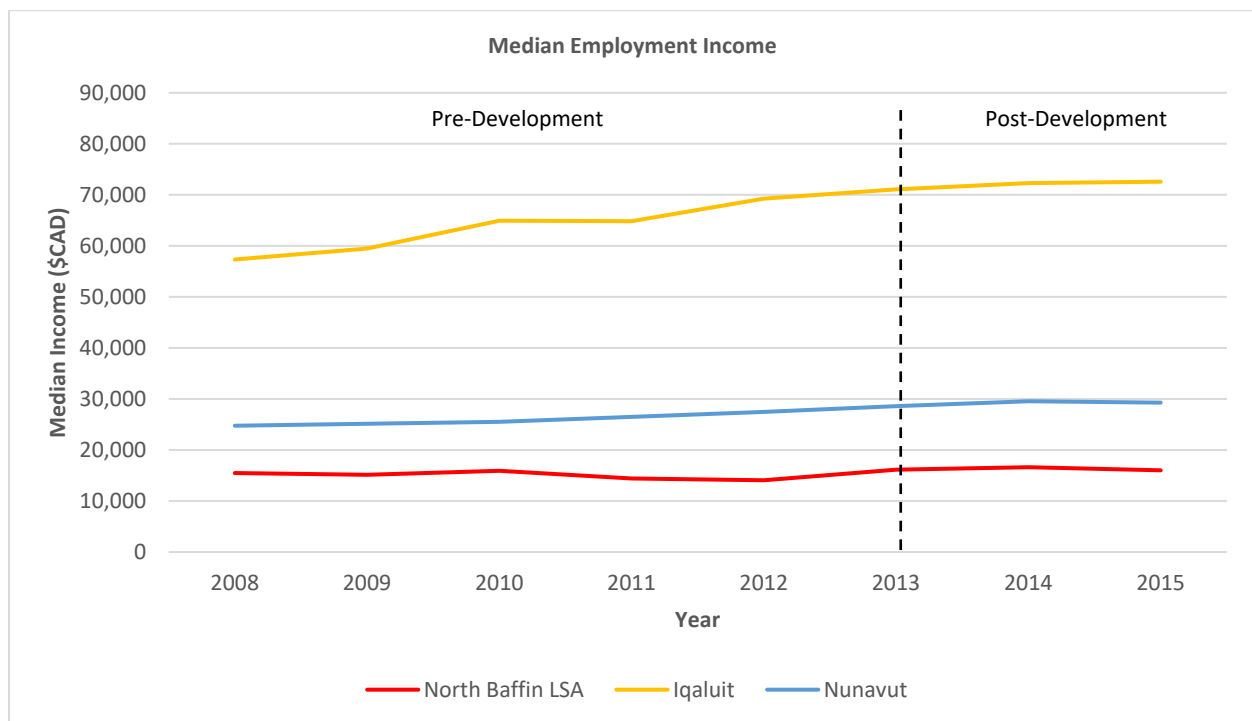
Likewise, 2015 was the most recent year data on median employment income were available from the Nunavut Bureau of Statistics (2017d). In the North Baffin LSA in 2015, Hall Beach had the highest median employment income (\$19,420), while Clyde River had the lowest (\$14,010). Iqaluit's median employment income in 2015 was \$72,580 and was significantly higher than the North Baffin LSA community average (\$15,998) and Nunavut average (\$29,270). Compared to the previous year (2014), there have been decreases in median employment income in the North Baffin LSA (by \$622) and Nunavut (by \$280), but an increase in Iqaluit (by \$270). Compared to pre-development period averages, there have been increasing trends in average median employment income in the North Baffin LSA (from \$15,007 to \$16,251), Iqaluit (from \$63,166 to \$71,990), and Nunavut (from \$25,876 to \$29,133) in the post-development period. Figure 7-3 displays median employment income by community and territory from 2008 to 2015.

**Figure 7-2: Proportion of taxfilers with employment income (2008 to 2015)**



Source: Nunavut Bureau of Statistics (2017d)

**Figure 7-3: Median employment income (2008 to 2015)**

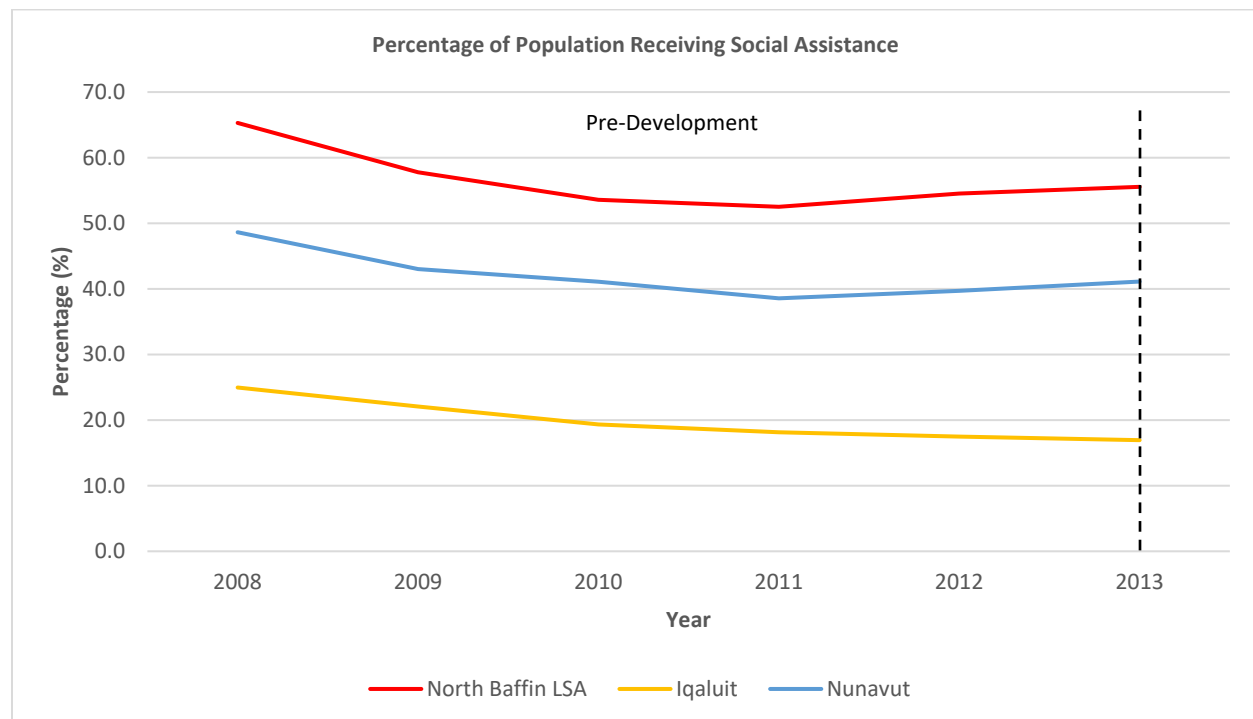


Source: Nunavut Bureau of Statistics (2017d)

### Percentage of Population Receiving Social Assistance

The percentage of the population receiving social assistance is also a useful indicator of household financial performance. 2013 was the most recent year data on the percentage of social assistance recipients were available from the Nunavut Bureau of Statistics (2014). In the North Baffin LSA in 2013, Clyde River had the highest percentage of population receiving social assistance (65.3%), while Hall Beach had the lowest (44.6%). The percentage of individuals receiving social assistance in Iqaluit in 2013 was 16.9%, which was significantly lower than the North Baffin LSA community average (55.6%) and Nunavut average (41.1%). Compared to the previous year (2012), there has been an increase in the percentage of the population receiving social assistance in the North Baffin LSA (by 1.1%) and Nunavut (by 1.4%), but a decrease in Iqaluit (by 0.6%). Compared to pre-development period averages, there have been decreasing trends in the average percentage of the population receiving social assistance in the North Baffin LSA (from 56.7% to 55.6%), Iqaluit (from 20.4% to 16.9%), and Nunavut (from 42.2% to 41.1%) in the post-development period. Figure 7-4 displays the percentage of the population receiving social assistance from 2008 to 2013.

**Figure 7-4: Percentage of population receiving social assistance (2008 to 2013)**



Source: Nunavut Bureau of Statistics (2014)

#### 7.2.3 Analysis

There have been decreasing trends in the proportion of taxfilers with employment income in the North Baffin LSA and Iqaluit in the post-development period. However, a decreasing trend was also noted prior to Project development in the North Baffin LSA. While Iqaluit went from no change (during the pre-development period) to a decreasing trend (during the post-development period), a comparable situation was also noted across Nunavut. This implies factors other than the Project are likely driving these trends.

While there have been increasing trends in median employment income in the North Baffin LSA and Iqaluit in the post-development period, these trends were also evident in the pre-development period. A comparable situation has been noted across Nunavut, which implies factors other than the Project are likely driving these trends.

Similarly, while there have been decreasing trends in the percentage of the population receiving social assistance in the post-development period in the North Baffin LSA and Iqaluit these trends were also evident in the pre-development period. A comparable situation has been noted across Nunavut, which implies factors other than the Project are likely driving these trends.

As Project construction only began in 2013, there is minimal post-development data currently available. Employment income and social assistance rates can also be influenced by many socio-economic factors. Direct correlations between the Project and employment income and social assistance rates, if any, may only come to light with the analysis of additional annual data. There is currently no indication the FEIS prediction is not being met. In fact, there are positive indications the Project continues to improve household income and food security in the LSA. This has occurred by providing LSA residents with meaningful employment opportunities and through contributions to community wellness initiatives. Employment income facilitates the purchase of store bought food and other family goods, while also providing a means to participate in harvesting if desired. Some additional discussion on food security is provided in Section 10.1.

### 7.3 TRANSPORT OF SUBSTANCES THROUGH PROJECT SITES

#### 7.3.1 Predicted Effect and Mitigation Measures

The FEIS predicted the Project could increase availability of substances such as alcohol and illegal drugs in the North Baffin LSA due to their possible transportation through Project sites. Mitigation developed by Baffinland includes a no drugs/no alcohol policy on site and baggage searches for all employees and contractors arriving at site.

#### 7.3.2 Indicator Data

##### *Number of Drug and Alcohol Related Contraband Infractions at Project Sites*

The number of drug and alcohol related contraband infractions at Project sites is a useful indicator of the degree to which the transport of substances may be occurring at the Project. Table 7-1 displays the total number of drug and alcohol related contraband infractions at Project sites from 2013 to 2017. This includes confiscated drugs, alcohol, or related paraphernalia. In 2017, 15 drug and alcohol-related contraband infractions occurred at Project sites amongst employees and contractors. This was 4 infractions higher than in 2016.

**Table 7-1: Number of drug and alcohol related contraband infractions at Project sites (2013 to 2017)**

Number of Drug and Alcohol Related Contraband Infractions at Project Sites	
Year	Total
2013	5
2014	12
2015	2
2016	11
2017	15

Source: Baffinland. 2013 records are for a partial year.

### 7.3.3 Analysis

While all contraband infractions are of concern and taken seriously by Baffinland, the infractions that occurred in 2017 represent only a small number of individuals from the Project workforce. All individuals who do not comply with Baffinland's no drugs/no alcohol policy are immediately removed from site and disciplinary action (up to and including termination) is commenced. This management response supports Baffinland's goal of 'Safety First, Always' while also preventing further transport of contraband substances through Project sites.

## 7.4 AFFORDABILITY OF SUBSTANCES / ATTITUDES TOWARD SUBSTANCES AND ADDICTIONS

### 7.4.1 Predicted Effect and Mitigation Measures

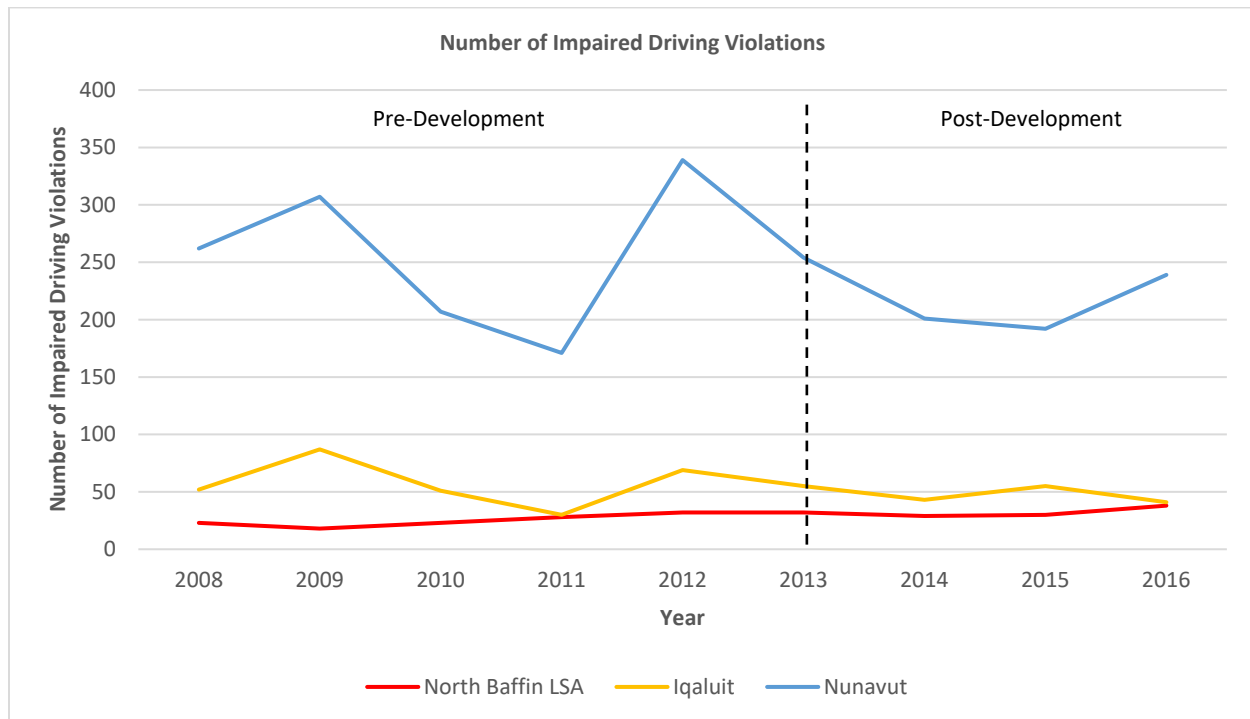
The FEIS predicted increased income from employment at the Project could increase the ability of LSA residents to afford substances such as alcohol and illegal drugs. However, the FEIS also predicted the Project could improve attitudes toward substances and addictions in the LSA (i.e. by providing positive incentives for individuals to reduce substance abuse). Mitigation developed by Baffinland includes a no drugs/no alcohol policy and baggage searches for all employees and contractors arriving at site. Baffinland has also implemented an EFAP for permanent employees and their dependents and contributes to the INPK community wellness fund through the IIBA negotiated with QIA.

### 7.4.2 Indicator Data

#### *Number of Impaired Driving Violations*

The number of impaired driving violations in the LSA provides some insight into whether rates of alcohol abuse are changing. 2016 was the most recent year data on the number of impaired driving violations were available from the Nunavut Bureau of Statistics (2017e). In the North Baffin LSA in 2016, Pond Inlet had the highest number of impaired driving violations (13), while Hall Beach had the fewest (2). The average number of impaired driving violations in the North Baffin LSA communities in 2016 was 7.6. Iqaluit had 41 impaired driving violations in 2016 and Nunavut had 239. Compared to the previous year (2015), there has been an increase in the total number of impaired driving violations in the North Baffin LSA communities (by 8) and Nunavut (by 47), and a decrease in Iqaluit (by 14). Compared to pre-development period averages, there has been an increasing trend in the average number of impaired driving violations in the North Baffin LSA (from 25 to 32) and decreasing trends in Iqaluit (from 58 to 49) and Nunavut (from 257 to 222) in the post-development period. Figure 7-5 displays the number of number of impaired driving violations from 2008 to 2016.

**Figure 7-5: Number of impaired driving violations (2008 to 2016)**



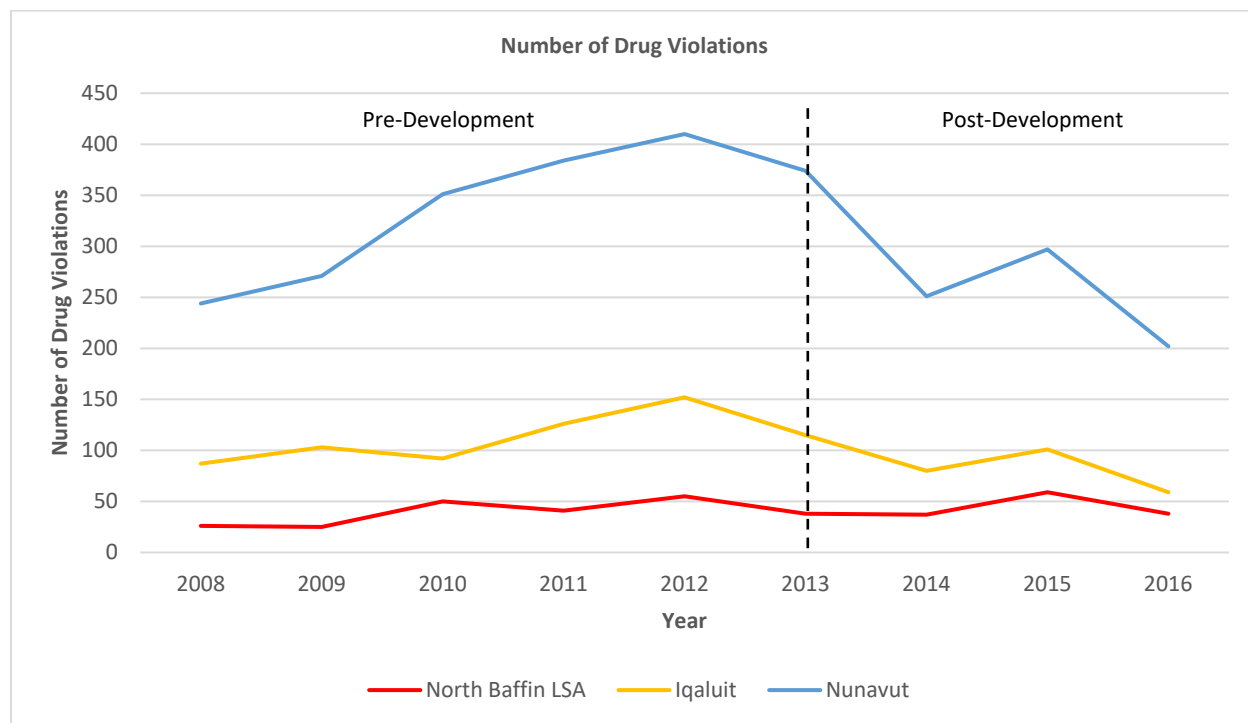
Source: Nunavut Bureau of Statistics (2017e)

### *Number of Drug Violations*

The number of drug violations in the LSA provides some insight into whether rates of drug abuse are changing. 2016 was the most recent year data on the number of drug violations by community were available from the Nunavut Bureau of Statistics (2017e). In the North Baffin LSA in 2016, Igloolik had the highest number of drug violations (19), while Hall Beach had the fewest (2). The average number of drug violations in the North Baffin LSA communities in 2015 was 7.6. Iqaluit had 59 drug violations in 2016 and Nunavut had 202. Compared to the previous year (2015), there has been a decrease in the number of drug violations in the North Baffin LSA communities (by 21), Iqaluit (by 42), and Nunavut (by 95). Compared to pre-development period averages, there has been an increasing trend in the average number of drug violations in the North Baffin LSA (from 39 to 43) and decreasing trends in Iqaluit (from 112 to 89) and Nunavut (from 332 to 281) in the post-development period. Figure 7-6 displays the number of number of drug violations from 2008 to 2016.



**Figure 7-6: Number of drug violations (2008 to 2016)**



Source: Nunavut Bureau of Statistics (2017e)

#### 7.4.3 Analysis

There has been an increasing trend in the number of impaired driving violations in the North Baffin LSA in the post-development period, which was also evident prior to Project development. Conversely, there has been a decreasing trend in Iqaluit in the post-development period, which was not evident prior to Project development (it was previously increasing). A comparable situation has been noted across Nunavut. Reasons for the lack of a similar trend reversal in the North Baffin LSA are currently unknown.

There has been an increasing trend in the number of drug violations in the North Baffin LSA in the post-development period, which was also evident prior to Project development. Conversely, there has been a decreasing trend in Iqaluit in the post-development period, which was not evident prior to Project development (it was previously increasing). A comparable situation has been noted across Nunavut. Reasons for the lack of a similar trend reversal in the North Baffin LSA are currently unknown.

As Project construction only began in 2013, there is minimal post-development data currently available. Drug and alcohol-related violations can also be influenced by many socio-economic factors. Direct correlations between the Project and drug and alcohol violations, if any, may only come to light with the analysis of additional annual data. However, there are positive indications the Project continues to improve attitudes toward substances and addictions in the LSA, by providing LSA residents with meaningful employment opportunities within a drug and alcohol-free environment. Baffinland also provides access to an EFAP for permanent employees and their dependents who may require assistance with drug and alcohol-related issues.

## 7.5 ABSENCE FROM THE COMMUNITY DURING WORK ROTATION

### 7.5.1 Predicted Effect and Mitigation Measures

The FEIS predicted the absence of workers from communities during their work rotations may lead to some moderate negative effects on community processes (e.g. local coaching, politics, and social organizations) in the LSA. However, it was also predicted that organizations and activities would be able to adapt and carry on their functions in light of these effects. Mitigation developed by Baffinland includes a short (two week in / two week out) rotation that allows employees to spend considerable time in their home communities. Baffinland also contributes to the INPK community wellness fund through its IIBA.

### 7.5.2 Indicator Data

#### *Absence from the Community During Work Rotation*

Appropriate community-level indicator data are currently unavailable for this topic. As such, this topic continues to be tracked through the QSEMC process and Baffinland's community engagement program. Should new indicators be required in the future, they will be selected in consultation with the SEMWG. General stakeholder comments on this topic were expressed during the 2017 QSEMC meeting in Arctic Bay. For example, some challenges were noted to arise for rotational workers with children and some turnover was noted to occur due to reasons including lack of childcare, homesickness, racism, and 12-hour shifts being too long. However, specific effects from worker absence on community processes were not noted (SEMCs 2017b). Some comments were also recorded about modifying the length of employment rotations during Baffinland's 2017 community engagement activities. Absence from the community does not appear to be an issue for at least some individuals:

*Two weeks on/two weeks off rotation, I don't agree with because I would prefer to stay on site, if I'm able to stay there, or longer time. I don't want to go back and forth. [2017 IIBA Annual Project Review Forum Participant]*

*...instead of having two weeks off, to have one week off... right now it's two weeks on, two weeks off. But if – possible for you guys to consider two weeks on and then one week off, because when they've been working for two weeks and then come home for two weeks, that gives them time to get lazy to get back to work? [2017 IIBA Annual Project Review Forum Participant]*

### 7.5.3 Analysis

The potential for negative effects to arise on community processes as a result of workers being absent during their work rotations is acknowledged. However, the Project's overall effect on this indicator, if any, remains unclear. Baffinland will continue to use a short rotation (i.e. two week in/two week out) so that workers are not required to be away from their communities for extended periods of time. Pre-employment training programs will also review strategies for successful rotational work with prospective employees, so they can come better prepared to deal with challenges that may arise. Furthermore, Baffinland's recently finalized IHRS notes the Company will consider adopting alternative rotation schedules that are better aligned with familial and community activities. The INPK fund that

Baffinland contributes to also continues to provide support to various community wellness initiatives across the Qikiqtaaluk Region that may assist in this regard. Based on available information, the Project does not currently appear to be a significant contributor to this issue. However, this topic will continue to be monitored for emerging trends.

## 7.6 PREVALENCE OF GAMBLING ISSUES

### 7.6.1 Project Certificate Term or Condition

No specific prediction related to the prevalence of gambling issues was presented in the FEIS. However, Project Certificate term and condition no. 154 states:

*The Proponent shall work with the Government of Nunavut and the Qikiqtaaluk Socio-Economic Monitoring Committee to monitor potential indirect effects of the Project, including indicators such as the prevalence of substance abuse, gambling issues, family violence, marital problems, rates of sexually transmitted infections and other communicable diseases, rates of teenage pregnancy, high school completion rates, and others as deemed appropriate.*

### 7.6.2 Indicator Data

#### *Prevalence of Gambling Issues*

Appropriate community-level indicator data are currently unavailable for this topic. As such, this issue continues to be tracked through the QSEMC process and Baffinland's community engagement program. Should new indicators be required in the future, they will be selected in consultation with the SEMWG. Gambling issues are an acknowledged concern in the LSA and some stakeholders worry that Project incomes may encourage gambling activities. Some comments on this topic have also been made previously by Project stakeholders (e.g. JPCSL 2017). However, no comments related to the Project and the prevalence of gambling issues were recorded during Baffinland's 2017 community engagement activities or during the 2017 QSEMC meeting.

### 7.6.3 Analysis

Gambling issues remain a concern for some Project stakeholders. However, the Project's overall effect on this indicator, if any, remains unclear. Gambling is a complex issue that can be influenced by several factors and only a limited number of comments on this topic have been recorded through the QSEMC process and Baffinland's community engagement program. Appropriate statistical data is also currently unavailable. It should be noted that Baffinland continues to provide its permanent employees and their dependents with access to an EFAP and has established on-site Inuit Elder positions to provide counsel and support to all Inuit Project employees. Gambling-related or other forms of personal assistance can be obtained through these programs, as needed. Considering the available information and mitigation measures in place, the Project does not currently appear to be a significant contributor to this issue. However, this topic will continue to be monitored for emerging trends.

## 7.7 PREVALENCE OF FAMILY VIOLENCE

### 7.7.1 Project Certificate Term or Condition

No specific prediction related to the prevalence of family violence was presented in the FEIS. However, Project Certificate term and condition no. 154 requests this topic be monitored.

### 7.7.2 Indicator Data

#### *Prevalence of Family Violence*

Appropriate community-level indicator data are currently unavailable for this topic. As such, this issue continues to be tracked through the QSEMC process and Baffinland's community engagement program. Should new indicators be required in the future, they will be selected in consultation with the SEMWG. No comments related to the Project and the prevalence of family violence were recorded during Baffinland's 2017 community engagement activities or during the 2017 QSEMC meeting. However, some data on this topic are available at the territorial level. Burczycka and Conroy (2017) note there were 924 incidents of police-reported family violence in Nunavut in 2015, which equates to a rate of 2,504 incidents per 100,000 population. This is substantially higher than the Canadian rate of 241 incidents per 100,000 population.

### 7.7.3 Analysis

Family violence remains a concern for some Project stakeholders. However, the Project's overall effect on this indicator, if any, remains unclear. Family violence is a complex issue that can be influenced by several factors and available statistical data is limited (at the territorial scale only). It should be noted that Baffinland continues to provide its permanent employees and their dependents with access to an EFAP and has established on-site Inuit Elder positions to provide counsel and support to all Inuit Project employees. Family-related and other forms of personal assistance can be obtained through these programs, as needed. Based on available information, the Project does not currently appear to be a significant contributor to this issue. However, this topic will continue to be monitored for emerging trends.

## 7.8 PREVALENCE OF MARITAL PROBLEMS

### 7.8.1 Project Certificate Term or Condition

No specific prediction related to the prevalence of marital problems was presented in the FEIS. However, Project Certificate term and condition no. 154 requests this topic be monitored.

### 7.8.2 Indicator Data

#### *Prevalence of Marital Problems*

Appropriate community-level indicator data are currently unavailable for this topic. As such, this issue continues to be tracked through the QSEMC process and Baffinland's community engagement program. Should new indicators be required in the future, they will be selected in consultation with the SEMWG.

Comments on this topic have previously been made by Project stakeholders (e.g. JPCSL 2017). In some cases, Project employment was believed to play a role in marital problems that had developed (e.g. infidelity and/or breakups initiated by the worker or individual at home). No comments related to the Project and the prevalence of marital problems were recorded at the 2017 QSEMC meeting. However, some comments on this topic were recorded during Baffinland's 2017 community engagement activities:

*...as grandmothers and mothers, we're proud of our children when they go – when they are hired. They leave for a week or two. But sometimes they return early, come back early. But we heard that – why our spouse when they – why they don't follow us when we go to work. It turned out that there was a problem with the couple. [2017 IIBA Annual Project Review Forum Participant]*

*So those kinds of problems – and QIL, if you have a spouse – a couple, let's say, the other one worked for Baffinland, the other one for QIL, the one working for Baffinland... or they move them around. But QIL, if they're a couple, will not move them. I don't know if there's a policy to separate the couple in the worksite. Yes, it really needs to be reviewed. [2017 IIBA Annual Project Review Forum Participant]*

Federal Census data on marital status are also available (see Table 7-2). Between 2011 and 2016, for example, the percentage of individuals in the North Baffin LSA who were married or living common law decreased (from 53.9% to 53.3%), while those who were separated or divorced increased (from 2.8% to 3.7%). In Iqaluit, the percentage of individuals who were married or living common law increased (from 53.3% to 53.8%), while those who were separated or divorced decreased (from 5.9% to 5.4%). In Nunavut, the percentage of individuals who were married or living common law decreased (from 53.4% to 53.2%), while those who were separated or divorced remained the same (at 3.5%).

**Table 7-2: Marital status of individuals 15 years and over (2011 and 2016)**

Location	Marital Status of Individuals 15 Years and Over			
	2011		2016	
	% Married or Living with a Common-Law Partner	% Separated or Divorced	% Married or Living with a Common-Law Partner	% Separated or Divorced
North Baffin LSA	53.9%	2.8%	53.3%	3.7%
Iqaluit	53.3%	5.9%	53.8%	5.4%
Nunavut	53.4%	3.5%	53.2%	3.5%
Canada	57.7%	8.6%	57.6%	8.6%

Source: Statistics Canada (2012a, b, c, d, e, f, g); Statistics Canada (2017c, d, e, f, g, h, i)

### 7.8.3 Analysis

Marital problems remain a concern for some Project stakeholders. However, the Project's overall effect on this indicator, if any, remains unclear. Marital problems are a complex issue that can be influenced by several factors and only a limited number of comments on this topic have been recorded through the QSEMC process and Baffinland's community engagement program. Available statistical data is also limited (for limited time periods only). While the percentage of individuals who are separated or divorced increased in the North Baffin LSA between 2011 and 2016, this percentage (conversely) decreased in Iqaluit over the same period for unknown reasons. The five-year data gap between federal

censuses also makes explaining these differences difficult. As Project construction only began in 2013, there is minimal post-development data currently available. Correlations between the Project and marital problems, if any, may only come to light with the analysis of additional data.

It should be noted that Baffinland continues to provide its permanent employees and their dependents with access to an EFAP and has established on-site Inuit Elder positions to provide counsel and support to all Inuit Project employees. Family-related or other forms of personal assistance can be obtained through these programs, as needed. Considering the available information and mitigation measures in place, the Project does not currently appear to be a significant contributor to this issue. However, this topic will continue to be monitored for emerging trends.

## 7.9 RATES OF SEXUALLY TRANSMITTED INFECTIONS AND OTHER COMMUNICABLE DISEASES

### 7.9.1 Project Certificate Term or Condition

No specific prediction related to rates of sexually transmitted infections and other communicable diseases was presented in the FEIS. However, Project Certificate term and condition no. 154 requests this topic be monitored.

### 7.9.2 Indicator Data

#### *Percent of Health Centre Visits Related to Infectious Diseases*

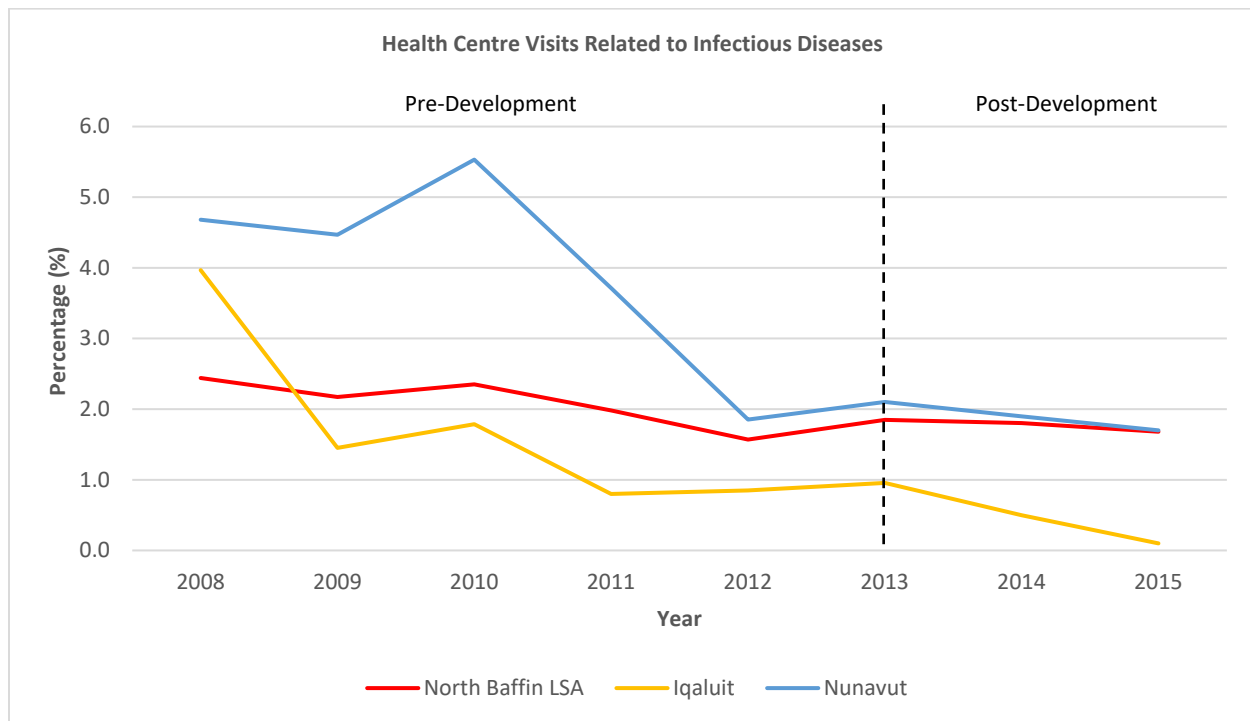
Data on community health centre visits can be used to identify whether health issues are increasing or decreasing in a community. Information on how the Project may affect rates of sexually transmitted infections and other communicable diseases in the LSA has been specifically requested in the Project Certificate. As such, data on the percentage of health centre visits by the diagnostic group 'infectious diseases' is a useful indicator to track.

2015 was the most recent year data on the percentage of health centre visits related to infectious diseases were available from the Nunavut Bureau of Statistics (2017f). In the North Baffin LSA in 2015, Igloolik had the highest percentage of health centre visits related to infectious diseases (2.2%), while Clyde River had the lowest (0.7%). The average percentage of health centre visits related to infectious diseases in the North Baffin LSA communities in 2015 was 1.7%. Iqaluit had 0.1% of health centre visits related to infectious diseases in 2015, while Nunavut had 1.7%.<sup>16</sup> Compared to the previous year (2014), there was a decrease in the percentage of health centre visits related to infectious diseases in the North Baffin LSA communities (by 0.1%), Iqaluit (by 0.4%), and Nunavut (by 0.2%). Compared to pre-development period averages, there have been decreasing trends in the average percentage of health centre visits related to infectious diseases in the North Baffin LSA (from 2.1 to 1.8), Iqaluit (from 1.8 to 0.5), and Nunavut (from 4.0 to 1.9) in the post-development period. Figure 7-7 displays the percentage of health centre visits related to infectious diseases from 2008 to 2015.

---

<sup>16</sup> The Nunavut Bureau of Statistics (2017f) notes that only visits to Iqaluit's community health centre are reported on, while visits to Iqaluit's hospital are not.

**Figure 7-7: Percent of health centre visits related to infectious diseases (2008 to 2015)**



Source: Nunavut Bureau of Statistics (2017f)

### 7.9.3 Analysis

While there have been decreasing trends in the percentage of health centre visits related to infectious diseases in the North Baffin LSA and Iqaluit in the post-development period, decreasing trends were also evident in the pre-development period. A comparable situation has been noted across Nunavut, which implies factors other than the Project are likely driving these trends. However, infectious disease rates can be influenced by many socio-economic factors. As Project construction only began in 2013, there is minimal post-development data currently available. Correlations between the Project and infectious disease rates, if any, may only come to light with the analysis of additional annual data. However, it is worth noting the Project continues to provide all workers with regular access to a site medic, to whom they can confidentially visit with health-related (including sexual health) issues.

## 7.10 RATES OF TEENAGE PREGNANCY

### 7.10.1 Project Certificate Term or Condition

No specific prediction related to teenage pregnancy rates was presented in the FEIS. However, Project Certificate term and condition no. 154 requests this topic be monitored.

### 7.10.2 Indicator Data

#### *Rates of Teenage Pregnancy*

Appropriate community-level indicator data are currently unavailable for this topic. As such, this issue continues to be tracked through the QSEMC process and Baffinland's community engagement program. Should new indicators be required in the future, they will be selected in consultation with the SEMWG. No comments related to the Project and teenage pregnancy rates were recorded during Baffinland's 2017 community engagement program or during the 2017 QSEMC.

However, some data on this topic are available at the territorial level. Statistics Canada (2017j) notes 17.6% of all Nunavut live births in 2014 (the most recent year data were available) were to mothers under the age of 20. By comparison, only 2.8% of all Canadian live births in 2014 were to mothers under the age of 20. Boulet and Badets (2017) provide additional information on the topic of early motherhood (i.e. having become a mother before the age of 20) among Inuit, off-reserve First Nations, and Métis women, derived primarily from the 2012 Aboriginal Peoples Survey. Boulet and Badets (2017: 2) note:

*"...taking care of a child as a teenager may represent a challenge given the responsibilities associated with motherhood, which can hinder a young woman's progress towards earning a high school diploma and possibly pursuing postsecondary education... among women aged 18 to 44 years, 38% of Inuit women...dropped out of high school due to pregnancy or to take care of a child. Given their lower education level, these young women may be at greater risk for unemployment or dependence on social assistance."*

Boulet and Badets (2017) also note 45% of Inuit women, 28% of First Nations women living off reserve, and 20% of Métis women (aged 20 to 44), became mothers before the age of 20; this compared to 6% of non-Indigenous women in the same age group. Likewise, Indigenous early mothers were less likely to have a high school diploma; among Inuit women, 40% of those who became mothers in their teenage years had a high school diploma, compared with 59% of Inuit women who had children later in life (Boulet and Badets 2017).

### 7.10.3 Analysis

Teenage pregnancy remains a concern for some Project stakeholders. However, the Project's overall effect on this indicator, if any, remains unclear. Teenage pregnancy is a complex issue that can be influenced by several factors and available statistical data is limited (at the territorial scale, for the entire Inuit population, and/or for limited time periods only). Based on available information, the Project does not currently appear to be a significant contributor to this issue. However, this topic will continue to be monitored for emerging trends.

## 7.11 CRIME

### 7.11.1 Project Certificate Term or Condition

No specific prediction related to crime was presented in the FEIS. However, Project Certificate term and condition no. 154 states other indicators should be monitored "as deemed appropriate". Members of the SEMWG have requested community crime rate data be included in Baffinland's socio-economic monitoring program.

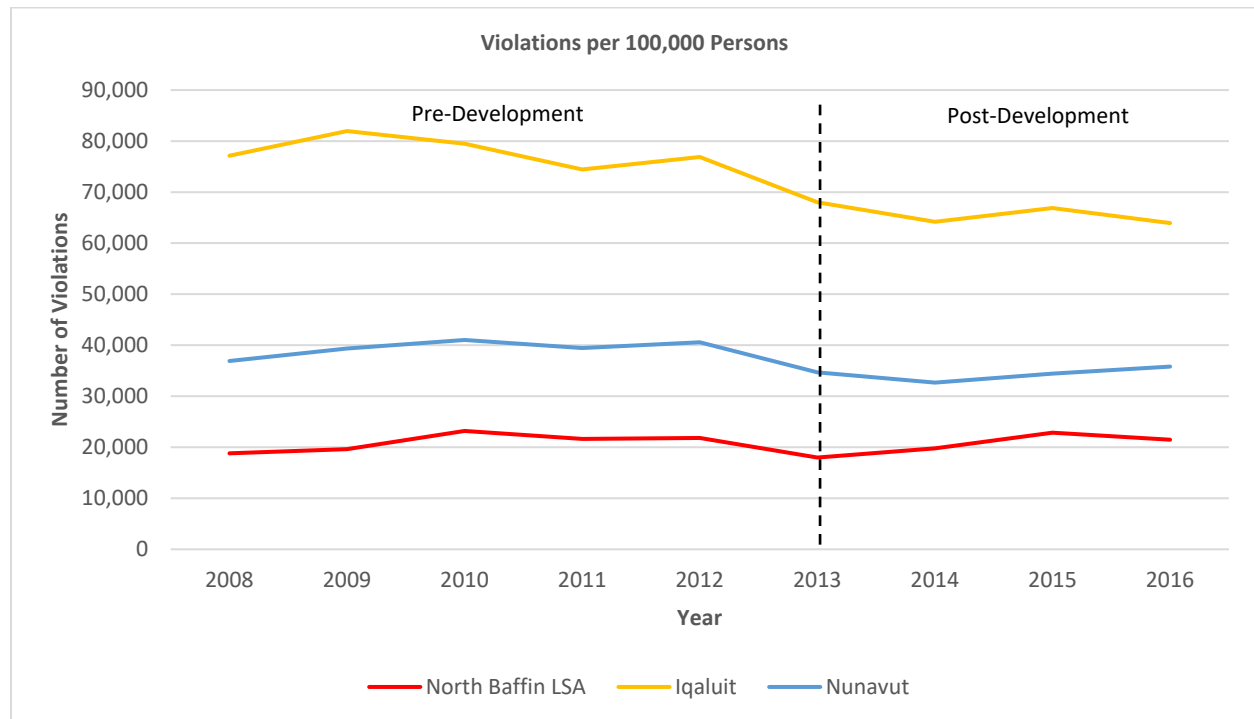


### 7.11.2 Indicator Data

#### Crime Rate

Data on community crime rates are useful for providing an indication of whether crime is increasing or decreasing. 2016 was the most recent year crime rate data were available from the Nunavut Bureau of Statistics (2017g). In the North Baffin LSA in 2016, Pond Inlet had the highest number of violations per 100,000 persons (27,841), while Hall Beach had the fewest (8,787). Iqaluit had 63,939 violations per 100,000 persons in 2016, which was significantly higher than the North Baffin LSA community average (21,462) and for Nunavut (35,791). Compared to the previous year (2015), there was a decrease in the number of violations per 100,000 persons in the North Baffin LSA communities (by 1,385) and Iqaluit (by 2,933), but an increase in Nunavut (by 1,350). Compared to pre-development period averages, there have been decreasing trends in average crime rates in the North Baffin LSA (from 21,016 to 20,516), Iqaluit (from 77,983 to 65,750), and Nunavut (from 39,459 to 34,391) in the post-development period. Figure 7-8 displays the number of violations per 100,000 persons from 2008 to 2016.

**Figure 7-8: Number of violations per 100,000 persons (2008 to 2016)**



Source: Nunavut Bureau of Statistics (2017g)

### 7.11.3 Analysis

There have been decreasing trends in crime rates in the North Baffin LSA and Iqaluit in the post-development period which were not evident in the pre-development period (they were previously increasing). A comparable situation has been noted across Nunavut, which implies factors other than the Project are likely driving these trends. However, crime rates can be influenced by many socio-economic factors. As Project construction only began in 2013, there is minimal post-development data

currently available. Correlations between the Project and crime rates, if any, may only come to light with the analysis of additional annual data.

## 7.12 EMPLOYEE AND FAMILY ASSISTANCE PROGRAM

### 7.12.1 Project Certificate Term or Condition

No specific prediction related to the Employee and Family Assistance Program (EFAP) was presented in the FEIS. However, Project Certificate term and condition no. 154 states other indicators should be monitored “as deemed appropriate”. Members of the SEMWG have requested data on the number of times Baffinland’s EFAP is accessed annually be included in Baffinland’s socio-economic monitoring program.

### 7.12.2 Indicator Data

#### *Number of Times Baffinland’s EFAP is Accessed*

Baffinland’s benefit plan includes an EFAP, which offers all permanent employees and their dependents professional short-term counselling on an as-needed basis. Baffinland implemented its EFAP in 2015. The EFAP provider, Homewood Health Solutions (Homewood), provides access to a network of certified professionals who deliver personal and mental health and financial wellness programs. The EFAP is a free and confidential program. Homewood offers counselling and support related to a wide variety of health programs such as depression, addictions, family, and work-life balance. The EFAP provides both telephone and online services.

In 2017 there were a total of 38 EFAP cases, whose distribution in Canada is summarized in Table 7-3. This is 20 cases more than in 2016. As shown in Table 7-3, employees and their families who reside in Nunavut accounted for 31.6% of annual EFAP use in 2017.

**Table 7-3: Number of times Baffinland’s EFAP is accessed annually (2015 to 2017)**

Number of Times Baffinland’s Employee and Family Assistance Program (EFAP) is Accessed Annually			
Year	Nunavut	Other Locations	Total
2015	7	12	19
2016	10	8	18
2017	12	26	38

Source: Baffinland

Notes: Records are only available from 2015 onwards

### 7.12.3 Analysis

The EFAP continues to provide services to Baffinland’s permanent employees and their dependents on an as-needed basis. The number of times Baffinland’s EFAP was accessed were similar in 2015 and 2016 but grew in 2017. Likewise, employees and their families who reside in Nunavut have remained important users of the EFAP throughout this time. On-site Inuit Elders are also available for all Inuit Project employees to meet with and all employees have regular access to an on-site Project medic. This topic will continue to be monitored for emerging trends.

## 8. COMMUNITY INFRASTRUCTURE AND PUBLIC SERVICES

Two residual effects for the VSEC Community Infrastructure and Public Services were assessed in the FEIS. These include competition for skilled workers and labour force capacity. These are reviewed more fully below, in addition to information on two other topics requested through the Project Certificate.

### 8.1 COMPETITION FOR SKILLED WORKERS

#### 8.1.1 Predicted Effect and Mitigation Measures

The FEIS predicted the Project could negatively affect the ability of hamlets to maintain their staff in the short-term, due to increased competition for skilled workers created because of the Project. Mitigation developed by Baffinland includes the provision of ongoing skills training to local residents, combined with work experience generated by the Project. These measures are expected to increase the pool of skilled workers in the local labour force in the medium- to long-term and negate any short-term, negative Project effects.

#### 8.1.2 Indicator Data

##### *Number of Project Employees and Contractors Who Left Positions in their Community*

Results from the 2018 Inuit Employee Survey presented in Section 4.4 indicate 22 individuals (or 31.4% of known survey responses) resigned from a previous job in order to take up employment with the Project. Of these individuals, 7 were casual/part-time positions and 15 were full-time positions.

#### 8.1.3 Analysis

Some Project employees and contractors have left positions in their communities to pursue employment at the Project. However, some of the community positions departed were of a casual/part-time nature, rather than full-time, permanent employment. At least some of the positions departed were likely also in communities outside the North Baffin LSA; for example, 5 of the 22 individuals in the 2018 Inuit Employee Survey who resigned from a previous job in order to take up employment with the Project listed their current community of residence as being outside of the North Baffin LSA. Community engagement conducted by Baffinland also continues to indicate a high demand for employment opportunities exists in the LSA. The recent *Mary River Experience – The First Three Years* report (i.e. BDSI 2016) provides some additional insight into this topic. For example, the report notes:

*“...the potential that the Mary River Project may draw employees away from other local employers seems evident.” [Page 37]*

However, the report describes the lack of full-time hamlet work (and other job opportunities) in many communities and important role the Project plays in filling this gap:

*“One current Mary River employee spoke about how permanent employment in the community seemed to be out of reach. As more and more people gained drivers’ licenses the practice of sharing hamlet work around a pool of people was leading to slimmer and slimmer employment duration.” [Page 35]*

*“There are no jobs in the hamlets... and if you do get a job it’s part-time, its casual, you can’t get social assistance... and you may get very little work... you might get 40 hours this week and next week you’ll only get 5 hours.” [Key Person Interviewed, Page 35]*

*“For some, the advantage of Mary River is that it offers jobs that simply are not available in the small, local economies of North Baffin LSA communities.” [Page 37]*

Ongoing training and experience generated by the Project, in addition to regular employee turnover (see Section 8.2), is expected to continue increasing the pool of skilled workers in the local labour force and negate any short-term, negative Project effects. However, this topic will continue to be monitored for emerging trends.

## 8.2 LABOUR FORCE CAPACITY

### 8.2.1 Predicted Effect and Mitigation Measures

The FEIS predicted the Project could positively affect the ability of hamlets to maintain their staff in the medium- to long-term, due to increased labour force capacity created because of the Project. Mitigation developed by Baffinland includes the provision of ongoing skills training to local residents, combined with work experience generated by the Project. Together, these are expected to increase the overall pool of skilled workers in the local labour force from which hamlets (and other local and regional organizations) can draw upon.

### 8.2.2 Indicator Data

#### *Training and Experience Generated by the Project*

As noted in Sections 4 and 5, the Project continues to generate substantial training and experience opportunities for its employees. Since 2013, the Project has cumulatively generated 122,950 hours of training for employees (this does not include any additional training provided directly by Project contractors). 15,867 of these hours (or 12.9%) were completed by Inuit employees. Likewise, 8,837,636 hours of Project labour (and on-the-job experience) have been cumulatively performed in Nunavut since 2013. 1,483,359 of these hours (or 16.8%) were performed by Inuit employees and contractors.

#### *Inuit Employee Turnover*

As noted in Section 5.3, employee turnover continues to occur at the Project. While high rates of employee turnover are undesirable in most workplaces, some degree of turnover is expected and considered normal. In 2017, there were 42 Inuit employee departures (not including contractors) at the Project. This is equivalent to a 45% Inuit employee turnover rate.

#### 8.2.4 Analysis

The Project continues to generate substantial training and experience opportunities for its employees. Employee turnover also continues to occur at the Project, which ensures at least some previous Project employees become available for employment elsewhere. Together, this helps increase the overall pool of skilled workers in the local labour force from which hamlets (and other local and regional organizations) can draw upon.

### 8.3 PRESSURES ON EXISTING HEALTH AND SOCIAL SERVICES PROVIDED BY THE GN THAT MAY BE IMPACTED BY PROJECT-RELATED IN-MIGRATION OF EMPLOYEES

#### 8.3.1 Project Certificate Term or Condition

No specific prediction related to pressures on existing health and social services provided by the GN that may be impacted by Project-related in-migration of employees was presented in the FEIS. However, Project Certificate term and condition no. 158 states:

*The Proponent is encouraged to work with the Government of Nunavut and other parties as deemed relevant in order to develop a Human Health Working Group which addresses and establishes monitoring functions relating to pressures upon existing services and costs to the health and social services provided by the Government of Nunavut as such may be impacted by Project-related in-migration of employees, to both the North Baffin region in general, and to the City of Iqaluit in particular.*

#### 8.3.2 Indicator Data

##### *Number of Health Centre Visits (Total and Per Capita)*

Health centre utilization data can be used to track changes to demands placed on community health services. 2015 was the most recent year data on the number of health centre visits was available from the Nunavut Bureau of Statistics (2017f). In the North Baffin LSA in 2015, Pond Inlet had the highest number of health centre visits (15,518), while Hall Beach had the fewest (6,016). The total number of health centre visits in the North Baffin LSA in 2015 was 59,027. Iqaluit had 16,233 health centre visits in 2015 and Nunavut had 241,082.<sup>16</sup> Compared to the previous year (2014), the number of health centre visits have decreased in the North Baffin LSA (by 4,864), Iqaluit (by 3,561), and Nunavut (by 11,932). Compared to pre-development period averages, there have been increasing trends in the average number of health centre visits in the North Baffin LSA (from 46,264 to 61,083), Iqaluit (from 13,020 to 17,184), and Nunavut (from 193,066 to 244,215) in the post-development period. Figure 8-1 displays the number of health centre visits from 2008 to 2015.

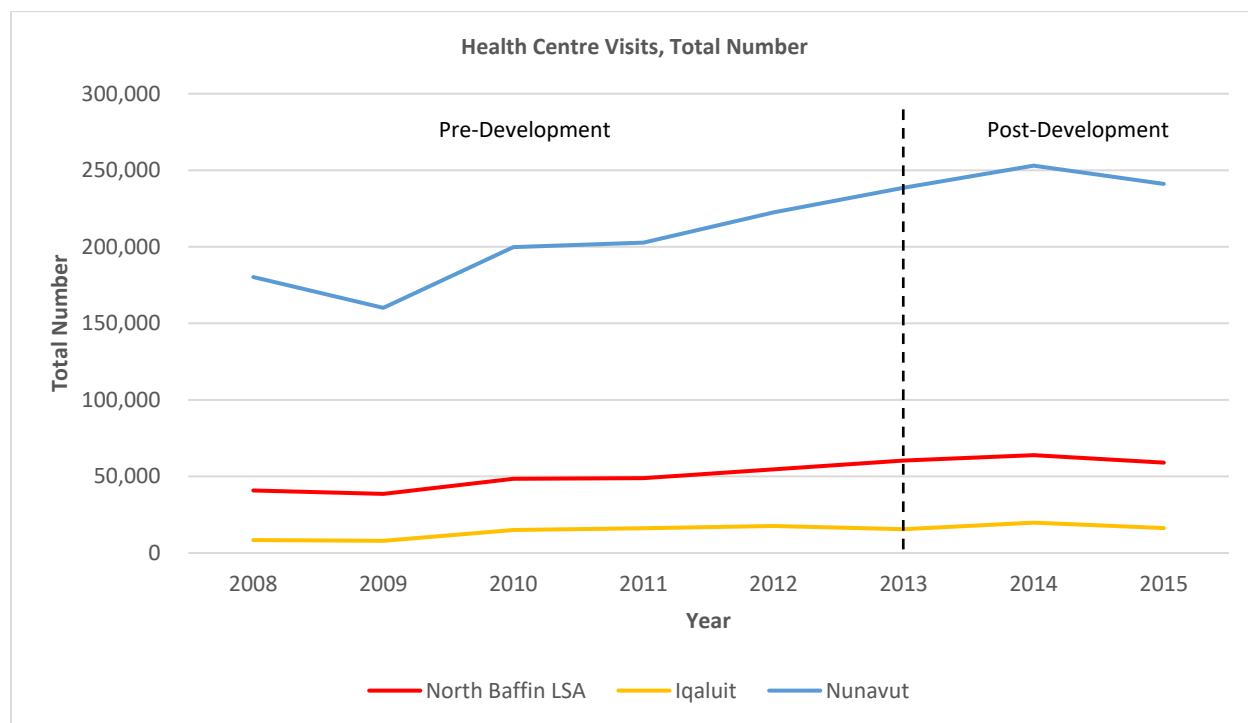
2015 was also the most recent year data on per capita number of health centre visits were available from the Nunavut Bureau of Statistics (2017f). In the North Baffin LSA in 2015, Clyde River had the highest number of per capita health centre visits (13.2), while Hall Beach had the fewest (6.4). The average number of per capita health centre visits in the North Baffin LSA in 2015 was 9.4. Iqaluit had 2.2 per capita health centre visits in 2015 and Nunavut had 6.6.<sup>16</sup> Compared to the previous year (2014), the per capita number of health centre visits have decreased in the North Baffin LSA (by 0.8), Iqaluit (by 0.5), and Nunavut (by 0.4). Compared to pre-development period averages, there have been increasing trends in the average per capita number of health centre visits in the North Baffin LSA (from 8.2 to 9.9),

Iqaluit (from 1.9 to 2.4), and Nunavut (from 5.8 to 6.8) in the post-development period. Figure 8-2 displays the per capita number of health centre visits from 2008 to 2015.

#### *Number of Visits to Project Site Medic*

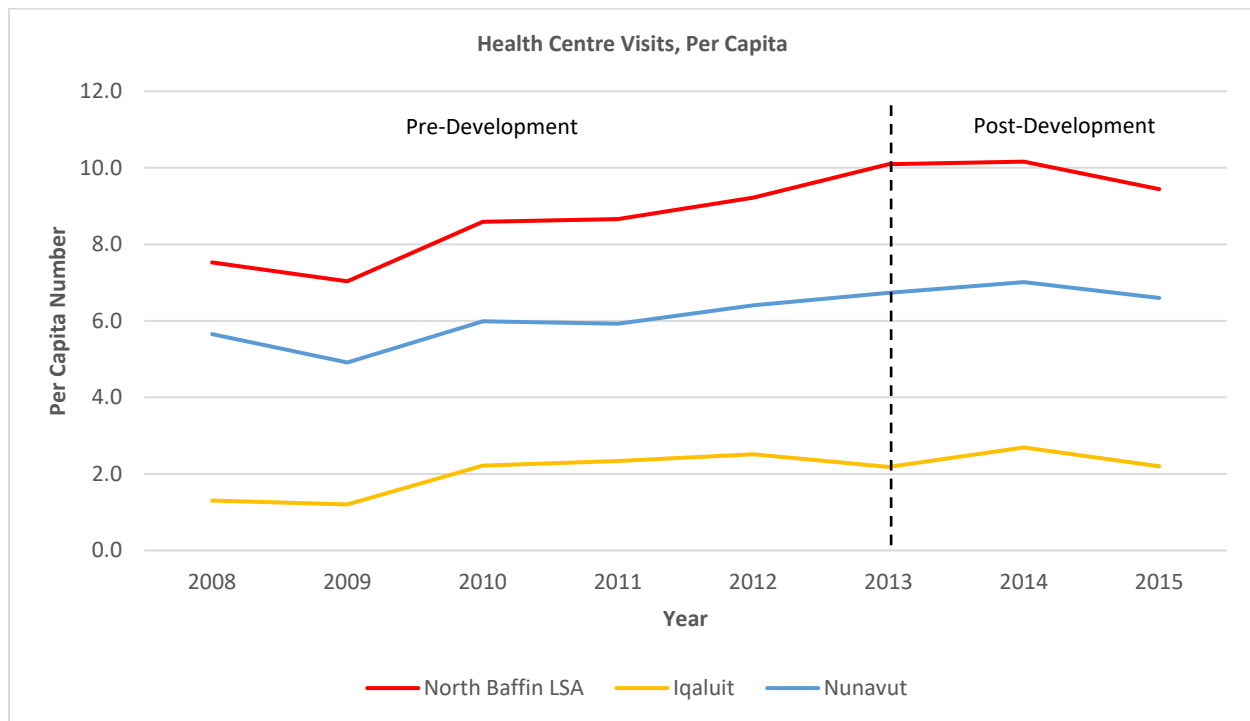
Baffinland provides all employees with regular access to an on-site Project medic. The number of annual Project site medic visits can be used to track demands placed on Project-related health care services. This data also provides insight into the role played by the Project in reducing demands placed on local health care services. In 2017, there were 6,337 recorded visits to the Project site medic, an increase of 2,325 visits from 2016. Table 8-1 displays the number of recorded visits to the Project site medic from 2013 to 2017.

**Figure 8-1: Number of health centre visits (2008 to 2015)**



Source: Nunavut Bureau of Statistics (2017f)

**Figure 8-2: Per capita number of health centre visits (2008 to 2015)**



Source: Nunavut Bureau of Statistics (2017f)

**Table 8-1: Number of visits to Project site medic (2013 to 2017)**

Number of Visits to Project Site Medic					
Ethnicity	2013	2014	2015	2016	2017
Inuit	342	1,158	845	801	1,193
Non-Inuit	870	2,125	2,580	3,211	5,144
<b>Total</b>	<b>1,212</b>	<b>3,283</b>	<b>3,425</b>	<b>4,012</b>	<b>6,337</b>

Source: Baffinland

### 8.3.3 Analysis

While there have been increasing trends in the number of total and per capita health centre visits in the North Baffin LSA and Iqaluit in the post-development period, these trends were also evident in the pre-development period. An increasing trend has also been noted throughout Nunavut in the post-development period, which implies a longer-term and/or territory-wide trend is likely occurring rather than a Project-induced one.

However, health centre utilization rates can be influenced by many socio-economic factors. As Project construction only began in 2013, there is minimal post-development data currently available. Correlations between the Project and health centre utilization, if any, may only come to light with the analysis of additional annual data. Related information on the percentage of the population receiving social assistance can be found in Section 7.2.

One of the primary ways the Project could negatively influence health and social service provision in the North Baffin LSA – in-migration of workers – has been shown (in Section 3.2) not to be occurring in any

significant manner. In fact, the Project may be having a positive effect on LSA health service provision, by providing employees with regular access to an on-site Project medic. Baffinland's benefit plan also includes an EFAP which offers all permanent employees and their dependents professional short-term counselling on an as-needed basis. On-site Inuit Elders are also available for the Project's Inuit employees to meet with. This access allows LSA employees to have at least some of their health needs addressed on-site, thereby reducing demands placed on local health care providers.

Baffinland continues to work with the SEMWG and QSEMC on socio-economic monitoring initiatives; the GN actively participates in both these groups. A Memorandum of Understanding (MOU) was also signed with the GN Department of Health in November 2013 and updated in 2017 regarding site health services and medevac procedures. More specifically, this MOU describes the health care staff and services Baffinland will provide on-site, including procedures Baffinland will follow during medevac situations, for pre-employment medical examinations, and for the reporting and management of communicable diseases, amongst other topics. The MOU also describes how Baffinland will pay for and/or reimburse the GN Department of Health for costs associated with the medical transportation of employees and for conducting pre-employment medical exams.

#### 8.4 PROJECT-RELATED PRESSURES ON COMMUNITY INFRASTRUCTURE

##### 8.4.1 Project Certificate Term or Condition

No specific prediction related to Project-related pressures on community infrastructure was presented in the FEIS. However, Project Certificate term and condition no. 159 states:

*The Proponent is encouraged to work with the Government of Nunavut to develop an effects monitoring program that captures increased Project-related pressures to community infrastructure in the Local Study Area communities, and to airport infrastructure in all point-of-hire communities and in Iqaluit.*

##### 8.4.2 Indicator Data

##### *Baffinland Use of LSA Community Infrastructure*

Baffinland continued to utilize some community infrastructure in the LSA to support ongoing Project operations in 2017. This included:

- Full-time rental of five offices for Baffinland Community Liaison Officers (BCLOs) in the North Baffin communities of Arctic Bay, Clyde River, Hall Beach, Igloolik, and Pond Inlet, and one office for Baffinland's Northern Affairs team in Iqaluit
- Short-term use of meeting rooms and other local services for events held in various LSA communities. Examples include:
  - January 2017 – Procurement and contracting workshop (Iqaluit and Pond Inlet)
  - March-April 2017 – Career information tour (North Baffin LSA communities)
  - April 2017 – Baffinland attended the Nunavut Mining Symposium (Iqaluit)
  - May 2017 – Community tour to discuss the Phase 2 Proposal (North Baffin LSA communities)



- May 2017 – Baffinland attended the IIBA Annual Project Review Forum. This was jointly held by Baffinland and QIA and attended by representatives from the North Baffin LSA communities (Arctic Bay).
- June 2017 – Shipping and marine monitoring workshop with the Mittimatalik Hunters and Trappers Organization, QIA, and local and territorial politicians (Pond Inlet)
- July 2017 – Baffinland met with the QSEMC to discuss regional and Project-specific socio-economic monitoring programs (Arctic Bay)
- August 2017 – Recruitment tour by Baffinland and Horizon North (the Phase 2 Proposal camp construction and services contractor). Horizon North introduced themselves to the communities and collected resumes for potential employment at the Project (North Baffin LSA communities).
- September 2017 – Community tour to discuss Baffinland’s employment and training initiatives, with an objective of attracting more Inuit employees to Baffinland’s workforce (North Baffin LSA communities)
- September 2017 – Baffinland met with local officials to discuss Baffinland’s proposed amendment to the North Baffin Regional Land Use Plan (Pond Inlet)
- September 2017 – Baffinland met with local officials about ice management and Project shipping (Pond Inlet)
- September 2017 – Baffinland attended the Nunavut Trade Show and Conference (Iqaluit)
- September 2017 – Baffinland attended the Territorial Socio-Economic Monitoring Workshop hosted by the Government of Nunavut (Iqaluit)
- October 2017 – Joint QIA/Baffinland Community Liaison Officer training (Iqaluit)
- November 2017 – Freshwater workshop (Iqaluit)
- November 2017 – Meetings with the Mittimatalik Hunters and Trappers Organization to discuss 2017 summer monitoring programs (Pond Inlet)
- November 2017 – Environmental working group meetings (Iqaluit)
- December 2017 – Baffinland participated in the Nunavut Planning Commission hearing on the Phase 2 Proposal (Pond Inlet)

Additional details on stakeholder meetings and activities Baffinland participated in can be found in the company’s Annual Report to the NIRB.

#### *Number of Project Aircraft Movements at LSA Community Airports*

To support the movement of workers, freight, and other materials to/from the Project, Baffinland is required to utilize community airport infrastructure in the LSA. This is due to the remote location of the Project and lack of viable alternative transportation methods (aside from seasonal marine re-supply). In 2017, there were 1,628 Project aircraft movements at LSA community airports, which is 374 more aircraft movements than in 2016.<sup>17</sup> This includes fixed-wing aircraft (e.g. passenger, cargo, and ‘combi’ type) and rotary-wing aircraft (e.g. helicopters used for site activities). Table 8-2 provides information on the number of Project aircraft movements at LSA community airports from 2014 to 2017.

---

<sup>17</sup> An aircraft movement is defined as a takeoff or landing at an airport. For example, one aircraft arrival and one departure is counted as two movements.

**Table 8-2: Number of Project aircraft movements at LSA community airports (2014 to 2017)**

<b>Number of Project Aircraft Movements at LSA Community Airports</b>				
<b>Community</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Arctic Bay	122	126	120	138
Clyde River	114	112	112	144
Hall Beach	130	122	122	152
Igloolik	118	106	114	122
Pond Inlet	212	136	134	162
Iqaluit	876	708	652	910
<b>Total</b>	<b>1,572</b>	<b>1,310</b>	<b>1,254</b>	<b>1,628</b>

Source: Baffinland

Notes: Records are available from 2014 onwards. 2014-2016 records are for fixed-wing aircraft movements only. 2017 records are for fixed-wing and rotary-wing aircraft.

### 8.4.3 Analysis

Like previous years, Baffinland continued to use some LSA community infrastructure to support ongoing Project operations in 2017. This use is small in comparison to other ongoing community uses and adds only minimal incremental pressure on LSA facilities. For example, Baffinland's rental of office spaces in the LSA is generally limited to small facilities (i.e. to support individual BCLOs and Northern Affairs staff), and the use of local meeting rooms and accommodations is often intermittent and short-term in nature (e.g. community meetings only occur a limited number of times per year). Furthermore, the use of these spaces can be considered a positive economic contribution of the Project to local economies (e.g. through payments of rental fees, purchase of related goods and services).

LSA community airports also regularly accommodate various non-Project passenger, cargo, and other aircraft (both scheduled and charter). Project-related aircraft movements add only minimal incremental pressure on these facilities. In 2016 (the most recent year data were available) there were a total of 22,157 aircraft movements in the LSA. This includes 5,518 aircraft movements at North Baffin LSA airports (Statistics Canada 2017k) and 16,639 aircraft movements at the Iqaluit airport (Statistics Canada 2017l).<sup>18</sup> Project-related aircraft movements at community airports in the LSA in 2016 represent only a small portion (5.7%) of this total.

<sup>18</sup> In 2016, the number of aircraft movements at the Clyde River airport were unavailable. 2015 aircraft movements at the Clyde River airport were used to estimate 2016 aircraft movements instead.

## 9. RESOURCES AND LAND USE

Several residual effects for the VSEC Resources and Land Use were assessed in the FEIS. To help address these a discussion on two indicators (number of recorded land use visitor person-days at Project sites and number of Wildlife Compensation Fund Claims) is provided below. Project harvesting interactions and food security are further discussed in Section 10.1. Other related effects continue to be tracked through Baffinland's terrestrial, marine, and freshwater monitoring programs, or are considered permanent for the life of the Project and are not monitored.

### 9.1 VARIOUS RESIDUAL EFFECTS

#### 9.1.1 Predicted Effect and Mitigation Measures

The FEIS predicted the Project could have some negative effects on Inuit travel and camping. These include effects on safe travel around Eclipse Sound and Pond Inlet, safe travel through Milne Port, emission and noise disruption at camps, sensory disturbances and safety along the Milne Inlet Tote Road, detouring around the Mine Site for safety and travel, difficulty and safety relating to railway crossing, and detouring around Steensby Port.

Shipping-related mitigation developed and/or proposed by Baffinland includes the provision of community public safety awareness campaigns (e.g. informing the community of vessel movements, tracking the route and timing of passage, periodic public meetings and information sessions), commitments to placing reflective markers around the ship track, establishing a detour around Steensby Port, and providing food, shelter, and fuel to detouring travellers. In addition, other mitigation measures have been identified for Steensby Port that will be implemented once that component of the Project is constructed.

Road and rail-related mitigation developed and/or proposed by Baffinland includes the development of a Roads Management Plan (e.g. establishing speed control and signage, ensuring truck operator vigilance, reporting of non-Project individuals), public education, and the addition of six railway crossing locations. Mine site-related mitigation developed by Baffinland includes various public safety mechanisms (e.g. establishing signage and access barriers, restrictions on entering industrial sites), and the development of a mine closure plan. Baffinland has also developed a Hunter and Visitor Site Access Procedure as an appendix to the Roads Management Plan (Baffinland 2016), which describes how land users can safely access Project facilities at Milne Port and the Mine Site. It further describes Baffinland's policy prohibiting the public from unescorted travel on the Tote Road. Baffinland will instead transport land users and their equipment on the Tote Road in order to prevent land user-Tote Road traffic interactions.

#### 9.1.2 Indicator Data

##### *Number of Recorded Land Use Visitor Person-Days at Project Sites*

The number of recorded land use visitor 'person-days' at Project sites provides an indication of how often the Project area continues to be accessed for land use activities. Because groups of individuals may travel together and/or utilize Project sites over multiple days, person-days are useful for calculating the extent of site visitations in a year (i.e. one person-day is equal to one person visiting a site during one day, while ten person-days could equal one person visiting a site during ten days or five people

visiting a site during two days). Baffinland maintains a Hunter and Visitor Access Log to track land use parties that pass through or use Project areas. Table 9-1 presents the number of recorded land use visitor person-days at Project sites from 2013 to 2017. In 2017, a total of 154 land use visitor person-days were recorded at Project sites, which is 139 person-days fewer than in 2016.

**Table 9-1: Number of recorded land use visitor person-days at Project sites (2013 to 2017)**

Number of Recorded Land Use Visitor Person-Days at Project Sites			
Year	Mary River	Milne Port	Total
2013	41	0	41
2014	14	57	71
2015	4	212	216
2016	15	278	293
2017	26	128	154

Source: Baffinland

Notes: This table only includes recorded land use visitors at selected Project sites; as such, it may underestimate the total number of land users accessing all Project sites.

### *Number of Wildlife Compensation Fund Claims*

The number of annual Wildlife Compensation Fund claims<sup>19</sup> provides insight into land use and harvesting issues which may be arising because of the Project. In 2017, one claim was submitted to QIA for review and was approved. It resulted in compensation of \$14,200.00 being paid out. By comparison, two claims were submitted to QIA for review in 2016. One claim was approved and resulted in compensation of \$600.00, while the second claim was reviewed and denied.

#### 9.1.3 Analysis

Monitoring data suggests Inuit land use activities coexist with the Project, as local land users continued to access Project sites in 2017. Inuit employee harvesting is also permitted at the Project (subject to certain restrictions) although Baffinland's 2018 Inuit Employee Survey indicates only minimal harvesting is currently conducted (12.1% of respondents indicated they participated in traditional activities (e.g. hunting, fishing, harvesting) during their leisure time on site). However, Baffinland has acknowledged the potential for future wildlife-related impacts from the Project and has contributed \$750,000.00 to a Wildlife Compensation Fund (administered by the QIA under the terms of the IIBA) to address this issue.

Additional discussion on Project harvesting interactions and food security is provided in Section 10.1. Baffinland continues to make positive contributions to the four components of food security identified by the Nunavut Food Security Coalition (2014) through initiatives commensurate with its role as a regional mineral developer (see Table 10-1). This includes providing LSA residents with meaningful incomes (through employment) that enable the purchase of food and support the participation in harvesting activities, and through contributions to various community wellness initiatives. Furthermore, Baffinland has developed mitigation and monitoring programs that aim to avoid adverse effects on terrestrial, freshwater, and marine resources important to LSA residents. Baffinland's Annual Report to the NIRB should be consulted for monitoring results specific to these topics.

<sup>19</sup> The Wildlife Compensation Fund, established under the IIBA, is administered by the QIA and functions to compensate Inuit for incidents where Project activities interfere with or inhibit harvesting activities.

## 10. ECONOMIC DEVELOPMENT AND SELF-RELIANCE

No residual effects specific to the VSEC Economic Development and Self-Reliance were assessed in the FEIS. Rather, an integrated assessment of other VECs/VSECs was conducted for this VSEC. Relevant monitoring of residual effects continues to be conducted through other VECs/VSECs. However, information on one topic requested through the Project Certificate is reviewed below.

### 10.1 PROJECT HARVESTING INTERACTIONS AND FOOD SECURITY

#### 10.1.1 Project Certificate Term or Condition

No specific prediction related to Project harvesting interactions and food security was presented in the FEIS. However, Project Certificate term and condition no. 148 states:

*The Proponent is encouraged to undertake collaborative monitoring in conjunction with the Qikiqtaaluk Socio-Economic Monitoring Committee's monitoring program which addresses Project harvesting interactions and food security and which includes broad indicators of dietary habits.*

#### 10.1.2 Indicator Data

##### *Project Harvesting Interactions and Food Security*

Appropriate community-level indicator data are currently unavailable for this topic. As such, this topic continues to be tracked through the QSEMC process, Baffinland's community engagement program, and related indicators. Should new indicators be required in the future, they will be selected in consultation with the SEMWG. Some data related to Project harvesting interactions and food security have already been presented in this report. For example, Section 7.2 discussed household income and food security and provided indicator data on the proportion of taxfilers with employment income, median employment income, and percentage of population receiving social assistance. Section 9.1 discussed the topic of resources and land use and provided indicator data on the number of recorded land use visitor person-days at Project sites and number of Wildlife Compensation Fund claims. Please refer to those sections for additional details.

Comments on Project harvesting interactions and food security have previously been made by Project stakeholders, with some individuals suggesting adverse effects have been experienced because of the Project (e.g. JPCSL 2017). Comments on harvesting and food security were also recorded through Baffinland's community engagement program in 2017. Example comments on the importance of harvesting and country food include:

*But the Baffinland – I want to tell them that our wildlife, our land are our main concern. You know, with the economic opportunities, we're supportive of that. Just – you know, if there's a minimal change to the environment or the wildlife, then we're – we are very supportive. So we need to be careful on how we operate in the environment. And the indigenous people, like Inuit, will continue to live here with the wildlife and the land and marine life. [2017 IIBA Annual Project Review Forum Participant]*

*I don't know if this has ever been considered, hunter support... I know in Mary River... Inuit go to work there. You know, they crave for meat, country food... HTO has country food to sell. We know that one of the workers can take it on the plane, get it to Mary River. But I don't know about – it's possible to sell country food. But if we're selling country food, we need to be approved by Department of Health inspections and other restrictions, when you're buying food... I don't know if you can include that in the agreement somewhere... or if you can consider to accommodate the -- providing country food to the Inuit workers without consequences like health. [2017 IIBA Annual Project Review Forum Participant]*

*So somehow there needs to be a way, I think, to make things easier to – for the hunters to sell to – or even HTOs to sell to Baffinland so the hunters can gain some income throughout that. [2017 IIBA Annual Project Review Forum Participant]*

*But if there is an impact we will voice our concern. We are very concerned for our hunters. [2017 Igloolik Meeting Participant]*

Comments on potential Project-harvesting interactions were also recorded through Baffinland's community engagement program in 2017. Examples include:

*Pond Inlet has wildlife. The Milne Inlet area is a calving ground for narwhal. And last summer, there were not too much narwhal harvested, very few. So they used to harvest a lot of narwhal in the past. So the ocean used to be turned red from blood... we don't see that anymore. And related to the caribou, we were told this winter that past the Mary River, they saw a herd of about 50,000 going towards Mary River. So we know that they're coming back to the area. And this summer, near Pond Inlet, from July, the aircraft, like helicopters and – will be harassing the area, harassing wildlife in the area. [2017 IIBA Annual Project Review Forum Participant]*

*But the Pond Inlet area, the shipping, we know, will have impact on the marine. So we know that. I think it's even obvious that the shipping – increased shipping will have a negative impact on the number of marine animals. So, you know, that's the only concerns we have, is when it comes to environment and the animals. [2017 IIBA Annual Project Review Forum Participant]*

*...are you going to continue with the current monitoring... because narwhal used to be in great numbers, but every year it seems to be decreasing... they're moving to other areas, it seems like, because – due to the shipping traffic. [2017 IIBA Annual Project Review Forum Participant]*

*And, also, Mary River site, there's a calving ground for caribou. May/June, they'll start – so does that mean the caribou around the area are monitored during the calving season? [2017 IIBA Annual Project Review Forum Participant]*

*I also have a question considering the animals. And we're also impacted by what's happening in that area. [2017 IIBA Annual Project Review Forum Participant]*

*...caribou, our concern when they're migrating either way, down or back – so the roads – and I think it will impact the migrational route. So if the rail line or the road is preventing the*

*caribou from migrating, you should build a tunnel to allow the caribou to go through instead of going over. [2017 IIBA Annual Project Review Forum Participant]*

*...I don't know if it's true or not. But the reason they don't go through Navy Board Inlet, if it's true, that the polar bears should not be disturbed. But human – Inuit hunters will be disturbed. [2017 IIBA Annual Project Review Forum Participant]*

*I am very serious... in regards to railways, and the caribou that move through Mary River. There still are caribou now and they have not arrived from the south yet so the roads seem to be an obstruction to the migration. [2017 Arctic Bay Meeting Participant]*

*... I have observed blasting with no gravel, and the char were impacted even though people say otherwise, and I think that is because of the mine. We as Inuit who live have lived in the Arctic our whole lives, we hear that everything is done according to regulations. But I think more can be done, more should be done to mediate the issue in terms of blasting... The mining company said it would not impact the environment but I have seen significant change. I am not against the Project but I want more solutions. I want to make sure that we don't lose the animals; we need to use a strategy. Let's not concentrate on the negative things but let's get a strategy. [2017 Clyde River Meeting Participant]*

*I can imagine that the dust would rise in the air from the blasting and fly in the wind and then go to the snow and the ocean. Many animals look for food around the shore, so those are my concerns. The animals always eat little vertebrates and what not and the dust will slowly go to the ocean so that's a concern I have. [2017 Clyde River Meeting Participant]*

*We see on television that near mine sites in other provinces, the caribou population declines. It seems that you are not taking responsibility and not taking IQ into consideration. I know that the road and railway line will impact the caribou population. When there is a mine site there is always a negative impact. It's not just based on IQ, there are more impacts. [2017 Igloolik Meeting Participant]*

*We want to be involved more, scientists are not the only ones who can provide information, Inuit have lived here for a long time. We know that the caribou migrations and populations change over the years but if we say that there has been more of an increased decline that should be taken into consideration. [2017 Igloolik Meeting Participant]*

*Inuit need a stronger voice in the company so that the company better understand our concerns. We have been impacted the most compared to other communities. We have the most ships coming through and we haven't had a narwhal migration in two years. We deserve more benefits than the other communities. The scientists say we are not impacted but they don't understand, we have been here longer and understand better that we are being impacted... Money, money, money you act is the most important thing in the world. [2017 Pond Inlet Meeting Participant]*

*... We do not hear about these negative impacts on wildlife but a lot of us are being impacted. In the future, we want to hear all of the concerns not just what Baffinland wants us to hear. Can a report be made by Baffinland when such impacts are found? [2017 Pond Inlet Meeting Participant]*

Likewise, some comments on the adaptability and resilience of wildlife in the Project area were recorded during Baffinland's community engagement program in 2017. Examples include:

*...any wildlife, they can get used to human presence... I know that they're not always afraid of humans, you know. The first initial contact – that they're afraid... the first time they see a human, they're afraid, of course. But then afterwards, you know, they can kind of get used to the humans around. And if they're not a threat, then, you know, they're no longer afraid. So I'm not too concerned about the wildlife, because, you know, there's ways that they will adapt to the conditions... so I'm more grateful that we have the economic opportunities available to us now. And the marine – also, I have firsthand knowledge... when there's a noise that they're not familiar with, yes, they'll stay away from that. But the noise – we used to scrape around the boulder, around the shore, trying to get them used to the noise first, and then they would get closer. So I know that the marine – you know, they would bring objects that can make noise or sound, and then they would attract the marine mammals when they're waiting by the shore... only hands-on experience that they were basing their knowledge on. [2017 IIBA Annual Project Review Forum Participant]*

*All the animals are concerned first, marine, and also on the land, too, because even little, tiny animals are impacted with the action of the marine – the mining in that area. Yes, it is also true that we know the knowledge of how the migrating comes to – migration of the caribou, that they came. And then in a long while, according to the knowledges [sic], that they usually come back... Mary River was also the activity for Inuit when they were migrating from one place to another; it was also a place where they went to. So, yes, even though there's a decline of the population of caribou... it's something that we're not really concerned with because we had heard before that caribou come and then caribou go... and we believe those behaviours will continue even to today's knowledge. But we have to make sure that our concern is – when they're going to be impacted, we have to do a lot more monitor – very close monitoring and very close research on how the wildlife is impacted on that. [2017 IIBA Annual Project Review Forum Participant]*

*Like, Mary River is – you know, it's halfway... are you aware, yes, of that generational migration of caribou, that they might start heading back again? [2017 IIBA Annual Project Review Forum Participant]*

Additional stakeholder comments on country food were expressed during the 2017 QSEMC meeting in Arctic Bay. For example, new infrastructure for local country food processing plants was said to be a priority, in order to provide healthy food locally and create economic development opportunities. A request for Baffinland to develop a program that provides local Elders with country food was also made during the meeting (SEMCs 2017b).

The topic of on-site harvesting activities was addressed in Baffinland's 2018 Inuit Employee Survey. When 'unknown' results were removed, 12.1% of respondents indicated they participated in traditional activities (e.g. hunting, fishing, harvesting) during their leisure time on site, 37.9% respondents did not participate in traditional activities during their leisure time on site, and 50.0% respondents didn't know they could participate in these activities during their leisure time on site. Of note, Article 11 of the IIBA allows for the pursuit of traditional activities by Inuit employees during their leisure hours, subject to certain restrictions.



Some data on harvesting and food security also exists at the territorial level. For example, data from the 2012 Aboriginal Peoples Survey (Statistics Canada 2015a) indicates approximately 66% of Nunavummiut hunted, fished, or trapped in the past year, while approximately 37% of Nunavummiut hunted, fished, or trapped at least once a week during the season. Likewise, approximately 43% of Nunavummiut gathered wild plants in the past year, while approximately 29% of Nunavummiut gathered wild plants at least once a week during the season.

Achieving food security remains a pressing issue in Nunavut (e.g. Nunavut Food Security Coalition 2014, 2016). Wallace (2014) notes food insecurity refers to situations, when, for example, the food that was purchased does not last, and there is not enough money to buy more; a household cannot afford to eat balanced meals; or household members cut the size of their meals or skip meals because there is not enough money for food. Data from the 2012 Aboriginal Peoples Survey (Statistics Canada 2015b) indicates approximately 25% of Nunavummiut have very low food security, 26% have low food security, while 41% have high or marginal food security.

### 10.1.3 Analysis

Harvesting and consumption of country food remains a valued and important part of the Inuit culture and diet. As noted in Section 7.2, there are indications the Project continues to improve household income and food security in the LSA, by providing LSA residents with meaningful incomes (through employment) that enable the purchase of food and support the participation in harvesting activities. Baffinland also contributes to various community wellness initiatives directly (e.g. through the INPK Fund in the IIBA, school meal program, seasonal country food exchange program, community food bank donations) and indirectly (e.g. through the *QIA Legacy Fund* and *QIA Benefits Fund*)<sup>14</sup>, which may assist individuals not directly benefiting from Project employment. The concerns expressed about Project effects on local harvesting and land use are acknowledged. Concerns have also been expressed about declining rates of country food consumption and the lack of food security in Nunavut, generally. However, statistical data on these topics is limited (i.e. available data is from 2012 and is only at the territorial scale).

Monitoring data presented in Section 9.1 suggests Inuit land use activities coexist with the Project, as local land users continued to access Project sites in 2017. Inuit employee harvesting is also permitted at the Project (subject to certain restrictions) although Baffinland's 2018 Inuit Employee Survey indicates only minimal harvesting is currently conducted. However, Baffinland has acknowledged the potential for future wildlife-related impacts from the Project and a Wildlife Compensation Fund has been established to address this issue.

The Nunavut Food Security Coalition (2014) has outlined four components of food security (i.e. availability, accessibility, quality, and use) and factors affecting each component (see Table 10-1). Baffinland has acknowledged it can play a role in each of these food security components. However, the Nunavut Food Security Coalition (2014: 2) also highlights food security components "are influenced by many complex factors" and notes "this critical and complex issue is larger than the mandate of any one organization. A collaborative approach is essential."

Baffinland continues to make positive contributions to the four components of food security through initiatives commensurate with its role as a regional mineral developer (Table 10-1). Baffinland has also developed mitigation and monitoring programs that aim to avoid adverse effects on terrestrial, freshwater, and marine resources important to LSA residents. Baffinland's Annual Report to the NIRB

should be consulted for monitoring results specific to these topics. However, harvesting and food security are complex issues that can be influenced by many factors. For this reason, this topic will continue to be monitored for emerging trends.

**Table 10-1: Food security components and Baffinland's role**

Components of Food Security	Factors Affecting Each Component	Baffinland's Role
<b>Availability</b>	<ul style="list-style-type: none"> <li>Family size</li> <li>Human population size</li> <li>Grocery supplies</li> <li>Wildlife stocks</li> <li>Distribution of wildlife</li> <li>Environmental conditions</li> </ul>	<ul style="list-style-type: none"> <li>Providing employees with ample and healthy food choices while on site</li> <li>Avoidance of adverse effects on the local physical/socio-economic environment and terrestrial/freshwater/marine resources utilized by LSA residents (verified through annual monitoring)</li> </ul>
<b>Accessibility</b>	<ul style="list-style-type: none"> <li>Cost of food</li> <li>Income levels</li> <li>Gambling and substance abuse</li> <li>Transportation effectiveness</li> <li>Strength of sharing networks</li> <li>Access to hunting grounds</li> <li>Climate change</li> </ul>	<ul style="list-style-type: none"> <li>Providing LSA residents with meaningful incomes through employment that enable the purchase of food and support participation in harvesting activities</li> <li>Direct and indirect contributions to community wellness initiatives (e.g. INPK Fund, school meal program, seasonal country food exchange program, community food bank donations)</li> <li>Employee support through the EFAP</li> <li>Avoidance of adverse effects on the local physical/socio-economic environment and terrestrial/freshwater/marine resources utilized by LSA residents (verified through annual monitoring)</li> <li>Permitting Inuit employee harvesting during leisure hours (subject to certain restrictions)</li> <li>Permitting Inuit non-employees to access Project sites and participate in harvesting activities (subject to certain restrictions)</li> <li>Establishment of a Wildlife Compensation Fund to address potential impacts</li> </ul>
<b>Quality</b>	<ul style="list-style-type: none"> <li>Nutritional knowledge</li> <li>Health of store-bought food</li> <li>Wildlife health</li> <li>Food spoilage</li> <li>Environmental contaminants</li> </ul>	<ul style="list-style-type: none"> <li>Providing employees with ample and healthy food choices while on site</li> <li>Establishment of country food kitchens at the Mary River and Milne Port sites</li> <li>Avoidance of adverse effects on the local physical/socio-economic environment and terrestrial/freshwater/marine resources utilized by LSA residents (verified through annual monitoring)</li> </ul>
<b>Use</b>	<ul style="list-style-type: none"> <li>Traditional knowledge</li> <li>Food preparation skills</li> <li>Budgeting skills</li> <li>Literacy rates</li> <li>Language barriers</li> </ul>	<ul style="list-style-type: none"> <li>Completion of a comprehensive Inuit Qaujimajatuqangit study (on several topics, including harvesting), the results of which are publicly available</li> <li>Commitment to offer financial management training and support to employees</li> <li>Commitment to offer literacy and numeracy training to employees</li> <li>Support for the use of Inuktitut at Project sites</li> </ul>

Notes: Food security components and factors affecting each component were sourced from the Nunavut Food Security Coalition (2014)

## **11. BENEFITS, ROYALTY, AND TAXATION**

One residual effect for the VSEC Benefits, Royalty, and Taxation was assessed in the FEIS: Payroll and corporate taxes paid by Baffinland to the territorial government. This is reviewed more fully below.

### **11.1      PAYMENTS OF PAYROLL AND CORPORATE TAXES TO THE TERRITORIAL GOVERNMENT**

#### **11.1.1   Predicted Effect and Mitigation Measures**

The FEIS predicted the Project would have a beneficial effect on revenues (e.g. through taxes) flowing to the territorial government. No specific mitigation measures have been developed to support this prediction.

#### **11.1.2   Indicator Data**

##### *Payroll and Corporate Taxes Paid by Baffinland to the Territorial Government*

The value of annual payroll and corporate tax payments by Baffinland to the territorial government helps demonstrate the Project's effect on revenues flowing to the territorial government. In 2017, Baffinland paid \$1,491,098.13 in employee payroll tax to the Government of Nunavut (i.e. a 2% payroll tax levy; other payroll taxes are paid to the federal government). Baffinland did not pay any corporate income tax in 2017 (as the Company is not yet profitable), property tax (as lease payments are made to the QIA and not the Government of Nunavut), or fuel tax (as this is currently being reviewed with the Government of Nunavut).

#### **11.1.3   Analysis**

The Project continued to pay taxes to the Government of Nunavut in 2017. As predicted in the FEIS, the positive effect of the Project on revenues flowing to the territorial government is confirmed for this reporting period. Baffinland expects increased tax amounts will be paid once the Company becomes profitable.

## 12. CONCLUDING REMARKS

### 12.1 SUMMARY

#### 12.1.1 Report Summary

This report has assessed the socio-economic performance of the Mary River Project in 2017, as well as Baffinland's compliance with various Project Certificate terms and conditions. Performance was assessed using socio-economic indicators and information for several VSECs included in the FEIS:

- Population demographics
- Education and training
- Livelihood and employment
- Contracting and business opportunities
- Human health and well-being
- Community infrastructure and public services
- Resources and land use
- Economic development and self-reliance
- Benefits, royalty, and taxation

The information presented in this report supports many of the FEIS predictions for these VSECs and identifies positive effects the Project has had. For example, approximately 2.38 million hours of Project labour were performed by Baffinland employees and contractors in Nunavut in 2017, which was equal to approximately 1,181 FTEs. Of this total, 313,068 hours were worked by residents of the LSA, representing approximately 155 FTEs. In addition, approximately \$7.06 million in payroll was provided to Baffinland LSA employees (not including contractors) and \$387.2 million was spent on procurement with Inuit-owned businesses and joint ventures in 2017.

Employment in the LSA is one area where Project activities didn't fully match FEIS predictions in 2017, as LSA employment hours in 2017 were somewhat lower than originally predicted. Likewise, there were several Inuit employee departures in 2017. Baffinland continues to take positive steps to address the issue of Inuit employment and recently finalized its Inuit Human Resources Strategy (IHRS) and Inuit Procurement and Contracting Strategy (IPCS) with the QIA. These documents describe goals and initiatives that will be used to increase Inuit employment and contracting at the Project over time.

Furthermore, Baffinland and the QIA are partners in the \$19 million Qikiqtani Skills and Training for Employment Partnership (Q-STEP) training program, which has been designed to provide Inuit with skills and qualifications to meet the employment needs of the Mary River Project as well as other employment opportunities in the region. The new Baffinland Apprenticeship Program, development of a labour pool of multi-skilled Inuit Heavy Equipment Operators, and other actions to meet the Minimum Inuit Employment Goal (MIEG) established with the QIA should also assist with increasing LSA employment over time. However, additional monitoring will be necessary to track the success of these and other Baffinland Inuit employment programs. Baffinland will also continue to track employee turnover causes and outcomes, moving forward.

Where appropriate, trends have been described for indicators assessed in this report. These trends (i.e. pre-development, post-development, and since the previous year) demonstrate whether an indicator

has exhibited change and describes the direction of that change. Trend analyses can be useful for assessing potential Project influences on an indicator. In some cases, additional data and monitoring will be necessary before the FEIS predictions presented in this report can be fully verified. In others, direct correlations between the Project and data trends were either unable to be identified or were unclear. The process of socio-economic monitoring often requires many years of data to effectively discern trends and causality. Even then, various factors may be found to influence causality and some of these may not be easy to measure. Successful socio-economic monitoring for the Project will require appropriate long-term data, the regular input of all Project stakeholders, and a focus on continuous improvement.

The objectives of this 2017 report (presented in Section 1.3) have been accomplished in several ways. First, this report provided an analysis (in Sections 3 to 11) of selected socio-economic effects that were predicted to occur in the Project's FEIS. Second, this analysis provided insight into the functioning of Baffinland's existing socio-economic mitigation and management programs (again, in Sections 3 to 11). Third, this report provided information that will assist regulatory and other agencies in evaluating Baffinland's compliance with socio-economic monitoring requirements for the Project (found throughout the report, but Appendix C summarizes how Baffinland has addressed Project Certificate terms and conditions related to socio-economic monitoring and Appendix D summarizes Baffinland's responses to NIRB recommendations on the 2016 socio-economic monitoring report). Finally, this report supports Baffinland's adaptive management objectives for the Project, as issues identified in this report will continue to be monitored and opportunities for potential performance improvements will be assessed.

#### 12.1.2 Summary of Regional and Cumulative Economic Effects

This section provides a summary of regional and cumulative economic effects related to the Project. This is in relation to Project Certificate term and condition no. 169, which states:

*The Proponent provide an annual monitoring summary to the NIRB on the monitoring data related to the regional and cumulative economic effects (positive and negative) associated with the Project and any proposed mitigation measures being considered necessary to mitigate the negative effects identified.*

The Project continued to make positive contributions to the Nunavut economy in 2017. As noted earlier, approximately 2.38 million hours of Project labour were performed by Baffinland employees and contractors in Nunavut in 2017, which was equal to approximately 1,181 FTEs. In addition, approximately \$7.06 million in payroll was provided to Baffinland LSA employees and \$387.2 million was spent on procurement with Inuit-owned businesses and joint ventures in 2017. Since Project development, approximately 8.84 million hours of Project labour have been performed, \$33.3 million in payroll has been provided to Inuit employees, and \$819.1 million has been awarded to Inuit-owned businesses and joint ventures.

When compared to annual economic outputs for Nunavut as a whole, these values are notable. In 2016 (the most recent year for which estimates are available), for example, there were a total of 16,565 jobs held in Nunavut and 30,103,000 total hours worked (Nunavut Bureau of Statistics 2017h), with average weekly earnings of \$1,274.60 per employee (Nunavut Bureau of Statistics 2017i). By comparison, hours worked by Baffinland's employees and contractors in Nunavut in 2016 (i.e. 1,881,506) represent 6.3% of

the Nunavut total. Average weekly earnings of Baffinland's Inuit employees in 2016 were also higher than the Nunavut average, at \$1,538.70.<sup>20</sup>

Mining remains an important contributor to the Nunavut economy. Nunavut's real gross domestic product<sup>21</sup> (GDP) for all industries in 2016 was \$2,039.6 million. Of this amount, '*mining, quarrying, and oil and gas extraction*' was responsible for contributing \$377.8 million (or 18.5%). Mining projects typically also make economic contributions to supporting industries such as '*construction*' (\$207.8 million contribution to the Nunavut economy in 2016), '*transportation and warehousing*' (\$49.1 million contribution to the Nunavut economy in 2016), and '*accommodation and food services*' (\$26.5 million contribution to the Nunavut economy in 2016), amongst others (Nunavut Bureau of Statistics 2017j). The Mary River Project has likely been an important contributor to these amounts, as has Agnico Eagle Mines Limited's Meadowbank Mine (Nunavut's only other operating mine in 2016), and several other Nunavut-based mining projects that are in various stages of development. Mining in Canada, generally, contributed \$55.6 billion to the country's GDP, or 3.4% of total Canadian GDP (in 2015). The industry also directly employs more than 373,000 individuals and remains the largest proportional private sector employer of Indigenous peoples in the country (Mining Association of Canada 2017).

No negative regional or cumulative economic effects associated with the Project were identified in 2017. As such, no mitigation measures are being proposed to mitigate negative effects.

## 12.2 ADAPTIVE MANAGEMENT

This report identifies several positive effects of the Project on VSECs described in the FEIS and supports several of the FEIS predictions that were made. The information contained in this report also suggests many of the mitigation and management measures established by Baffinland are functioning as anticipated. However, LSA employment and Inuit employee turnover are areas Baffinland will continue to address in 2018 and several new initiatives have been undertaken to support these efforts.

The recently finalized IHRS is a key strategic document for Baffinland in this regard and describes goals and initiatives that will be used by the Company to enhance Inuit employment, training, and skills development at the Project. It contains eight strategic directions that will assist Baffinland with meeting its Inuit employment objectives: strengthen stakeholder collaboration, engage and develop Inuit employees (current and potential), workforce readiness, Inuit recruitment and hiring, gender balance, students and youth, Inuit employee retention and advancement, and continuing improvement. Likewise, the recently finalized IPCS is expected to enhance the business opportunities available to Inuit. It addresses several Inuit contracting requirements contained in the IIBA and identifies preferential opportunities and procedures for Inuit Firms to contract with Baffinland.

Furthermore, Baffinland and the QIA were recently successful in securing funds through Employment and Social Development Canada's (ESDC) Skills and Partnership Fund for their Q-STEP training program.

---

<sup>20</sup> Baffinland Inuit employee numbers (98) and payroll amounts (\$7,841,203.00) for 2016 were presented in Baffinland's 2016 Socio-Economic Monitoring Report. Inuit employee numbers in 2016 were calculated based on the average of quarterly totals. Weekly employee earnings are thus an estimate and may not fully reflect average amounts for the year.

<sup>21</sup> The Bank of Canada (2016) notes real GDP is "the most common way to measure the economy... GDP is the total value of everything - goods and services - produced in our economy. The word "real" means that the total has been adjusted to remove the effects of inflation." The real GDP amounts by industry presented by the Nunavut Bureau of Statistics (2017j) are in chained 2007 dollars.

Q-STEP is a four-year initiative that will be undertaken by QIA in close partnership with Baffinland to provide Inuit with skills and qualifications to meet the employment needs of the Mary River Project as well as other employment opportunities in the region. The program will consist of both work readiness measures as well as targeted training programs directed at apprenticeships, skills development, supervisor training, and formal certification in heavy equipment operation. The total value of the program is \$19 million. The Government of Canada will provide \$7.9 million, Baffinland will provide \$9.4 million of in-kind support, Kakivak Association will provide up to \$1.6 million of in-kind support, and the Government of Nunavut will offer operational support to Q-STEP. Other ongoing efforts to meet the Minimum Inuit Employment Goal (MIEG) established with the QIA should further assist with increasing LSA employment over time (e.g. the new Baffinland Apprenticeship Program, development of a labour pool of multi-skilled Inuit Heavy Equipment Operators).

Continued monitoring of LSA employment hours, causes of Inuit employee turnover, and the initiatives described in the IHRS, IPCS, and Q-STEP training program (amongst others) will be necessary to ensure successful socio-economic outcomes. Opportunities for potential performance improvements in these areas will also be assessed by Baffinland throughout 2018. While additional monitoring is required to confirm the findings presented in this report over the long-term, no need has been identified to update any FEIS predictions or to modify Baffinland's existing management approach beyond what has been described above. However, Baffinland will continue to use adaptive management as a tool for improving the Project's overall socio-economic performance in the future.

### 12.3 FUTURE MONITORING AND REPORTING

As noted previously, Baffinland has developed a socio-economic monitoring plan for the Project (see Section 1.4) which addresses the VSECs assessed in the FEIS. Using this plan, Baffinland will continue to monitor and report on Project-related socio-economic performance on an annual basis. Regular engagement with the SEMWG and QSEMC on socio-economic matters will also occur.

Effectiveness of the Project's socio-economic monitoring program will be evaluated in an on-going manner. Information obtained through this process may lead to future modifications of the Project's socio-economic monitoring plan, indicators used, and/or methods of analysis employed. Baffinland also anticipates monitoring may cease for some indicators in the future, especially where FEIS predictions have been sufficiently verified over time. Should the need arise to significantly modify the Project's monitoring program, both the SEMWG and QSEMC will be consulted.

Furthermore, Baffinland recently received the Government of Nunavut's draft territorial socio-economic monitoring workshop report and recommendations (Government of Nunavut 2017). Some modifications to Baffinland's socio-economic monitoring plan have been made as a result of the draft report (see Section 2.4 for additional details). Baffinland will investigate the possibility of further aligning its monitoring program with the Government of Nunavut's recommendations, where appropriate, following its review of the final workshop report. In addition, Baffinland anticipates updating the SEMWG Terms of Reference in 2018. The existing Terms of Reference is somewhat dated (December 2012) and no longer fully reflect the scope of working group activities. Baffinland will work with SEMWG members in 2018 to complete revisions to the Terms of Reference. Baffinland anticipates including a revised Terms of Reference in its 2018 Socio-Economic Monitoring Report.

#### 12.4 CONCORDANCE WITH PROJECT CERTIFICATE TERMS AND CONDITIONS ON SOCIO-ECONOMIC MONITORING

Submission of this report helps achieve concordance with several Project Certificate terms and conditions related to socio-economic monitoring. A summary of each Project Certificate term or condition related to socio-economic monitoring, a description of how Baffinland has addressed each of these, and 2017 Socio-Economic Monitoring Report references (where applicable) can be found in Appendix C. Appendix D summarizes Baffinland's responses to NIRB recommendations on the 2016 Socio-Economic Monitoring Report.



### 13. REFERENCES

- Arriagada, P. 2016. First Nation, Métis and Inuit Women. *Women in Canada: A Gender-Based Statistical Report*. Statistics Canada Catalogue no. 89-503-X. Released February 23, 2016.
- Baffinland Iron Mines Corporation (Baffinland). 2016. *Roads Management Plan*. Document #: BAF-PH1-830-P16-0023. Rev 5. March 16, 2016.
- Bank of Canada. 2016. Measuring Economic Growth. Accessed February 1, 2016.  
<http://www.bankofcanada.ca/core-functions/monetary-policy/measuring-economic-growth/>
- Bell, J. 2012. Meadowbank a reality check for Nunavut mining: AEM executive. *Nunatsiaq News*. April 20, 2012. Accessed February 4, 2016.  
[http://www.nunatsiaqonline.ca/stories/article/65674meadowbank\\_a\\_reality\\_check\\_for\\_nunavut\\_mining\\_aem\\_executive/](http://www.nunatsiaqonline.ca/stories/article/65674meadowbank_a_reality_check_for_nunavut_mining_aem_executive/)
- Boulet, V. and N. Badets. 2017. Early Motherhood Among Off-Reserve First Nations, Métis and Inuit Women. *Insights on Canadian Society*. Statistics Canada Catalogue no. 75-006-X. Released December 1, 2017.
- British Columbia Environmental Assessment Office (BCEAO). 2013. *Guideline for the Selection of Valued Components and Assessment of Potential Effects*. Accessed January 14, 2016.  
[http://www.eao.gov.bc.ca/VC\\_Guidelines.html](http://www.eao.gov.bc.ca/VC_Guidelines.html)
- Brubacher Development Strategies Inc. (BDSI). 2015. *Baffinland Iron Mines Corporation Mary River Project 2014 Socio-Economic Monitoring Report*. Prepared for Baffinland Iron Mines Corporation. March 2015.
- Brubacher Development Strategies Inc. (BDSI). 2016. *Baffinland Iron Mines Corporation Mary River Project: Mary River Experience – The First Three Years*. January 18, 2016.
- Burczycka, M. and S. Conroy. 2017. Family Violence in Canada: A Statistical Profile, 2015. *Juristat*. Statistics Canada Catalogue no. 85-002-X. Released February 16, 2017.
- Conference Board of Canada. 2016. Education and Skills in the Territories. Accessed February 16, 2016.  
<http://www.conferenceboard.ca/hcp/provincial/education/edu-territories.aspx>
- Dicta Court Reporting Inc. 2017. *Baffinland Iron Mines Corporation's Mary River Project – Annual Project Review Forum Regarding the Inuit Impact Benefit Agreement, Public Forum Volumes 1 and 2*. Transcript of proceedings prepared by Dicta Court Reporting Inc. May 9-10, 2017. 264 pages.
- Eegeesiak, E. 2016. Inuit Firm Registry Coordinator, Nunavut Tunngavik Incorporated. Personal communication: February 2016.
- Government of Nunavut. 2014. *Public Service Annual Report 2013-2014*. Prepared by the Department of Finance. Accessed February 4, 2016.  
[http://www.gov.nu.ca/sites/default/files/public\\_service\\_annual\\_report\\_2013-14\\_english.pdf](http://www.gov.nu.ca/sites/default/files/public_service_annual_report_2013-14_english.pdf)
- Government of Nunavut. 2015. *Qikiqtaaluk Socio-Economic Monitoring Committee Spring 2015 Report*. Produced by the Government of Nunavut Department of Economic Development & Transportation. July 2015.
- Government of Nunavut. 2016. *Qikiqtaaluk Socio-Economic Monitoring Committee 2016 Annual Meeting Report*. Produced by the Government of Nunavut Department of Economic Development & Transportation. April 4, 2016.
- Government of Nunavut. 2017. *Draft Territorial Socio-Economic Monitoring Workshop Report*. Workshop held in Iqaluit, Nunavut on September 14-15, 2017. Report issued December 1, 2017.
- Gregoire, L. 2014. Nunavut premier says targeted training needed to build the future. *Nunatsiaq News*. January 30, 2014. Accessed February 16, 2016.  
[http://www.nunatsiaqonline.ca/stories/article/65674nunavut\\_premier\\_says\\_targetted\\_training\\_needed\\_to\\_build\\_future/](http://www.nunatsiaqonline.ca/stories/article/65674nunavut_premier_says_targetted_training_needed_to_build_future/)

- Jason Prno Consulting Services Ltd. (JPCSL). 2016. *Draft 2015 Socio-Economic Monitoring Report for the Mary River Project*. Report prepared for Baffinland Iron Mines Corporation. March 2016.
- Jason Prno Consulting Services Ltd. (JPCSL). 2017. *2016 Socio-Economic Monitoring Report for the Mary River Project*. Report prepared for Baffinland Iron Mines Corporation. March 2017.
- MacDonald, J. 2014. Occupational demand in the Nunavut mining sector: Developing the labour force. Presentation to the Nunavut Mining Symposium. Iqaluit, Nunavut. April 8, 2014.
- Mining Association of Canada. 2017. *Facts and Figures of the Canadian Mining Industry 2016*. Released February 16, 2017. Accessed October 27, 2017.  
<http://mining.ca/sites/default/files/documents/Facts-and-Figures-2016.pdf>
- Mining Industry Human Resources Council (MIHR). 2014. *Nunavut Mining Hiring Requirements and Available Talent Forecasts 2014*. Prepared for and in partnership with the Government of Nunavut. Accessed February 16, 2016.  
[http://www.gov.nu.ca/sites/default/files/nunavut\\_mining\\_hiring\\_requirements\\_and\\_available\\_talent\\_forecasts\\_web.pdf](http://www.gov.nu.ca/sites/default/files/nunavut_mining_hiring_requirements_and_available_talent_forecasts_web.pdf)
- Mining Industry Human Resources Council. 2016. *Exploring Gender Inclusion*. Accessed January 4, 2017. [https://www.mihhr.ca/pdf/MiHR\\_Gender\\_Report\\_EN\\_WEB.pdf](https://www.mihhr.ca/pdf/MiHR_Gender_Report_EN_WEB.pdf)
- Noble, B.F. 2015. *Introduction to Environmental Impact Assessment: A Guide to Principles and Practice*. Third ed. Toronto, Ontario: Oxford University Press.
- Nunavut Bureau of Statistics (NBS). 2009. *Guide to the Labour Force Survey in Nunavut*. Accessed February 17, 2016. <http://www.stats.gov.nu.ca/en/Labour%20survey.aspx>
- Nunavut Bureau of Statistics (NBS). 2014. *Nunavut Social Assistance Recipients, 2005 to 2013.xlsx*. Prepared by Nunavut Bureau of Statistics December 11, 2014. Accessed January 16, 2018.  
<http://www.stats.gov.nu.ca/en/Social%20assistance.aspx>
- Nunavut Bureau of Statistics (NBS). 2016. *Nunavut Population Estimates by Inuit and Non-Inuit, Region and Community, 2001 to 2016 (3 tables).xlsx*. Prepared by Nunavut Bureau of Statistics December 1, 2016. Accessed February 2, 2018.  
<http://www.stats.gov.nu.ca/en/Population%20estimate.aspx>
- Nunavut Bureau of Statistics (NBS). 2017a. *Nunavut Annual Migration Estimates, 1999 to 2017.xlsx*. Prepared by the Nunavut Bureau of Statistics October 4, 2017. Accessed November 14, 2017.  
<http://www.stats.gov.nu.ca/en/Population%20migration.aspx>
- Nunavut Bureau of Statistics (NBS). 2017b. *Nunavut Secondary School Graduates by Community, 1999 to 2016.xlsx*. Prepared by Nunavut Bureau of Statistics August 31, 2017. Accessed January 4, 2018. <http://www.stats.gov.nu.ca/en/Social%20education.aspx>
- Nunavut Bureau of Statistics (NBS). 2017c. *Nunavut Secondary School Graduates, 1999 to 2016 (2 tables).xlsx*. Prepared by Nunavut Bureau of Statistics September 21, 2017. Accessed January 4, 2018. <http://www.stats.gov.nu.ca/en/Social%20education.aspx>
- Nunavut Bureau of Statistics (NBS). 2017d. *Nunavut Taxfilers with Employment Income by Region and Community, 2006 to 2015.xls*. Prepared by Nunavut Bureau of Statistics October 19, 2017. Accessed November 15, 2017. <http://www.stats.gov.nu.ca/en/Economic%20income.aspx>
- Nunavut Bureau of Statistics (NBS). 2017e. *Nunavut Criminal Violations by Type and Community, 1999 to 2016 (26 tables).xlsx*. Prepared by the Nunavut Bureau of Statistics July 28, 2017. Accessed November 13, 2017. <http://www.stats.gov.nu.ca/en/Social%20crime.aspx>
- Nunavut Bureau of Statistics (NBS). 2017f. *Nunavut Community Health Centre Visits, 2003 to 2015 (28 tables).xlsx*. Prepared by the Nunavut Bureau of Statistics May 25, 2017. Accessed November 14, 2017. <http://www.stats.gov.nu.ca/en/Social%20health.aspx>
- Nunavut Bureau of Statistics (NBS). 2017g. *Nunavut Criminal Violations by Region and Community, 1999 to 2016 (16 tables).xls*. Prepared by the Nunavut Bureau of Statistics July 27, 2017. Accessed November 14, 2017. <http://www.stats.gov.nu.ca/en/Social%20crime.aspx>

Nunavut Bureau of Statistics (NBS). 2017h. *Nunavut Number of Jobs and Hours Worked, 1999 to 2016.xls*. Prepared by the Nunavut Bureau of Statistics May 19, 2017. Accessed November 10, 2017. <http://www.stats.gov.nu.ca/en/Labour%20and%20employment.aspx>

Nunavut Bureau of Statistics (NBS). 2017i. *Nunavut Employment and Earnings, 2001 to 2016.xls*. Prepared by the Nunavut Bureau of Statistics February 28, 2017. Accessed November 10, 2017. <http://www.stats.gov.nu.ca/en/Labour%20and%20employment.aspx>

Nunavut Bureau of Statistics (NBS). 2017j. *Nunavut Real GDP by Industry, 2011 to 2016.xls*. Prepared by the Nunavut Bureau of Statistics May 1, 2017. Accessed November 13, 2017. <http://www.stats.gov.nu.ca/en/Economic%20GDP.aspx>

Nunavut Bureau of Statistics (NBS). 2018. *Labour Force Tables for Nunavut, 3MMA Ending in December 2016 and 2017 (4 tables).xls*. Prepared by Nunavut Bureau of Statistics January 5, 2018. Accessed January 11, 2018. <http://www.stats.gov.nu.ca/en/Labour%20survey.aspx>

Nunavut Food Security Coalition. 2014. *Nunavut Food Security Strategy and Action Plan 2014-2016*. Accessed November 11, 2017. [https://www.nunavutfoodsecurity.ca/sites/default/files/files/Resources/Strategy/NunavutFoodSecurityStrategy\\_ENGLISH.pdf](https://www.nunavutfoodsecurity.ca/sites/default/files/files/Resources/Strategy/NunavutFoodSecurityStrategy_ENGLISH.pdf)

Nunavut Food Security Coalition. 2016. *Homepage*. Accessed November 17, 2017. <https://www.nunavutfoodsecurity.ca/>

Nunavut Impact Review Board (NIRB). 2013. *Monitoring: NIRB Public Guide Series*. Accessed January 7, 2015. <http://www.nirb.ca/guides>

Nunavut Impact Review Board (NIRB). 2014. *Project Certificate No. 005 for the Mary River Project, Amendment Number 01*. Issued by the Nunavut Impact Review Board to Baffinland Iron Mines Corporation on May 28, 2014.

Nunavut Tunngavik Incorporated (NTI). 2017. Inuit Firm Registry Database – Search the Registry. Accessed December 31, 2017. <http://inuitfirm.tunngavik.com/search-the-registry/>

Pauktuutit, K. Czyzewski, F. Tester, N. Aaruaq, and S. Blangy. 2014. *The Impact of Resource Extraction on Inuit Women and Families in Qamani'tuaq, Nunavut Territory: A Qualitative Assessment*. Accessed January 26, 2017. <http://pauktuutit.ca/wp-content/blogs.dir/1/assets/Report-Final-Jan-2015.pdf>

Pauktuutit. Undated. *Impacts of Resource Extraction on Inuit Women*. Accessed January 26, 2017. [http://pauktuutit.ca/wp-content/blogs.dir/1/assets/08-Mining-Fact-Sheet\\_EN.pdf](http://pauktuutit.ca/wp-content/blogs.dir/1/assets/08-Mining-Fact-Sheet_EN.pdf)

Qikiqtani Inuit Association (QIA). 2017a. What is QIA's New Revenue Policy? Accessed October 18, 2017. <http://qia.ca/what-is-qias-new-revenue-policy/>

Qikiqtani Inuit Association (QIA). 2017b. *Media Release - QIA Announces New Key Programs: \$5/day Daycare Subsidy, Resources for Daycares and Cultural Programs*. October 4, 2017. Accessed November 20, 2017. <http://qia.ca/qia-announces-new-key-programs-5day-daycare-subsidy-resources-for-daycares-and-cultural-programs/>

Socio-Economic Monitoring Committees (SEMCs). 2017a. About. Accessed November 20, 2017. [http://nunavutsemc.com/?page\\_id=4](http://nunavutsemc.com/?page_id=4)

Socio-Economic Monitoring Committees (SEMCs). 2017b. Meeting Minutes - Qikiqtaaluk Socio-Economic Monitoring Committee Annual Meeting, July 5 & 6, 2017, Arctic Bay, Nunavut. Accessed December 5, 2017. <http://nunavutsemc.com/wpcontent/uploads/2017/12/Qikiqtaaluk-SEMC-Minutes.pdf>

Sponagle, J. 2016. No childcare forces Iqaluit mom to leave town. *CBC News North*, July 11, 2016. Accessed January 26, 2017.

Statistics Canada. 2012a. *Canada (Code 01) and Nunavut (Code 62) (table). Census Profile*. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. Accessed

- November 17, 2017. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E>.
- Statistics Canada. 2012b. *Iqaluit, Nunavut (Code 6204003) and Nunavut (Code 62) (table). Census Profile*. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. Accessed November 17, 2017. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E>
- Statistics Canada. 2012c. *Arctic Bay, Nunavut (Code 6204018) and Nunavut (Code 62) (table). Census Profile*. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. Accessed November 17, 2017. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E>
- Statistics Canada. 2012d. *Clyde River, Nunavut (Code 6204015) and Nunavut (Code 62) (table). Census Profile*. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. Accessed November 17, 2017. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E>
- Statistics Canada. 2012e. *Hall Beach, Nunavut (Code 6204011) and Nunavut (Code 62) (table). Census Profile*. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. Accessed November 17, 2017. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E>
- Statistics Canada. 2012f. *Igloolik, Nunavut (Code 6204012) and Nunavut (Code 62) (table). Census Profile*. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. Accessed November 17, 2017. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E>
- Statistics Canada. 2012g. *Pond Inlet, Nunavut (Code 6204020) and Nunavut (Code 62) (table). Census Profile*. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. Accessed November 17, 2017. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E>
- Statistics Canada. 2015a. *Table 576-0006 - Aboriginal peoples survey, harvesting activities by age group and sex, Inuit population aged 15 years and over, Canada and Inuit Nunangat, occasional*, CANSIM (database). Date modified November 9, 2015. Accessed January 9, 2017. <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=5760006&pattern=&stByVal=1&p1=1&p2=-1&tabMode=dataTable&csid=>
- Statistics Canada. 2015b. *Table 577-0010 - Aboriginal peoples survey, food security, by age group, sex, and number of persons in household, Inuit population aged 6 years and over, Canada and Inuit Nunangat, occasional*, CANSIM (database). Date modified November 6, 2015. Accessed January 9, 2017. <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=5770010&pattern=&stByVal=1&p1=1&p2=-1&tabMode=dataTable&csid=>
- Statistics Canada. 2017a. *Table 252-0082 – Incident-based crime statistics, by detailed violations and police services, Territories, annual (number unless otherwise noted), CANSIM (database)*. Date modified July 21, 2017. Accessed November 14, 2017. <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=2520082&pattern=&csid=>
- Statistics Canada. 2017b. *Table 051-0001 - Estimates of population, by age group and sex for July 1, Canada, provinces and territories, annual (persons unless otherwise noted), CANSIM (database)*. Date modified September 27, 2017. Accessed December 7, 2017. <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=0510001&pattern=&csid=>
- Statistics Canada. 2017c. *Canada [Country] and Nunavut [Territory] (table). Census Profile*. 2016 Census. Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released October 25,

2017. Accessed October 27, 2017. <http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E>
- Statistics Canada. 2017d. *Arctic Bay, HAM [Census subdivision], Nunavut and Nunavut [Territory] (table). Census Profile. 2016 Census.* Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released October 25, 2017. Accessed October 27, 2017. <http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E>
- Statistics Canada. 2017e. *Clyde River, HAM [Census subdivision], Nunavut and Nunavut [Territory] (table). Census Profile. 2016 Census.* Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released October 25, 2017. Accessed October 27, 2017. <http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E>
- Statistics Canada. 2017f. *Hall Beach, HAM [Census subdivision], Nunavut and Nunavut [Territory] (table). Census Profile. 2016 Census.* Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released October 25, 2017. Accessed October 27, 2017. <http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E>
- Statistics Canada. 2017g. *Igloolik, HAM [Census subdivision], Nunavut and Nunavut [Territory] (table). Census Profile. 2016 Census.* Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released October 25, 2017. Accessed October 27, 2017. <http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E>
- Statistics Canada. 2017h. *Pond Inlet, HAM [Census subdivision], Nunavut and Nunavut [Territory] (table). Census Profile. 2016 Census.* Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released October 25, 2017. Accessed October 27, 2017. <http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E>
- Statistics Canada. 2017i. *Iqaluit, CY [Census subdivision], Nunavut and Nunavut [Territory] (table). Census Profile. 2016 Census.* Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released October 25, 2017. Accessed October 27, 2017. <http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E>
- Statistics Canada. 2017j. *Table 102-4503 – Live births, by age of mother, Canada, provinces and territories, annual, CANSIM (database).* Date modified October 19, 2017. Accessed November 13, 2017. <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=1024503&pattern=&csid=>
- Statistics Canada. 2017k. *Table 401-0037 – Annual aircraft movements, by class of operation and type of operation, airports without air traffic control towers, occasional (number), CANSIM (database).* Date modified June 27, 2017. Accessed November 13, 2017. <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=4010037&pattern=&csid=>
- Statistics Canada. 2017l. *Table 401-0030 Aircraft movements, by class of operation, airports with NAV CANADA flight service stations, annual (number), CANSIM (database).* Date modified June 20, 2017. Accessed November 13, 2017. <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=4010030&pattern=&csid=>
- Taylor, S. 2002. *The Employee Retention Handbook.* London, England: Chartered Institute of Personnel and Development.
- Vanclay, F., Esteves, A.M., Aucamp, I. & Franks, D. 2015 *Social Impact Assessment: Guidance for Assessing and Managing the Social Impacts of Projects.* Fargo ND: International Association for Impact Assessment.
- Wallace, S. 2014. *Inuit Health: Selected Findings from the 2012 Aboriginal Peoples Survey.* Statistics Canada Catalogue no. 89-653-x – No. 003. August 2014.

## **APPENDIX A: SEMWG TERMS OF REFERENCE**

**MARY RIVER SOCIO-ECONOMIC MONITORING WORKING GROUP**  
**TERMS OF REFERENCE**

**1. PURPOSE**

1.1 This document sets the Terms of Reference for the Mary River Socio-Economic Monitoring Working Group (the “Working Group”). The Working Group will support the Qikiqtaaluk Socio-Economic Monitoring Committee’s (QiSEMC) regional monitoring initiatives through project-specific socio-economic monitoring. It is intended to provide a forum for Working Group members to engage in the work of the QiSEMC through identification of areas of mutual interest and socio-economic monitoring priorities related to the Mary River project, communities, and the Baffin region as a whole.

1.2 The Working Group will support the fulfillment of Terms and Conditions set out in the Mary River Project Certificate that relate to socio-economic monitoring.

**2. WORKING GROUP MEMBERSHIP AND MEMBER ROLES AND RESPONSIBILITIES**

2.1 The Working Group will include as members:

- a. Baffinland Iron Mines Corporation (BIMC) or the successor owner/operator of the Mary River project;
- b. Government of Nunavut;
- c. Government of Canada; and
- d. Qikiqtani Inuit Association.

2.2 Each organization is responsible for their own costs of participating in activities of the Working Group.

2.3 Role of BIMC or the successor owner/operator of the Mary River project:

- a. Identify indicators and share project-specific data that can contribute to priorities identified by QiSEMC, where appropriate;
- b. Participate in the analysis of data arising from collaborative monitoring;
- c. Review the effectiveness of socio-economic mitigation measures;
- d. Participate and prepare presentations of project-related data/issues for the QiSEMC.

2.4 Role of the Government of Nunavut:

- a. Identify indicators and share data that can contribute to priorities identified by the QiSEMC, where appropriate;
- b. Participate in the analysis of data arising from collaborative monitoring;
- c. Participate in the analysis of effectiveness of socio-economic mitigation measures.

2.5 Role of the Government of Canada:

- a. Work with the Working Group to identify and align indicators and share relevant data from the Nunavut General Monitoring Plan (NGMP);
- b. Participate in the analysis of data arising from collaborative monitoring;
- c. Participate in the analysis of effectiveness of socio-economic mitigation measures.

## 2.6 Role of the Qikiqtani Inuit Association:

- a. Identify indicators and share data that can contribute to priorities identified by QiSEMC, where appropriate;
- b. Participate in the analysis of data arising from collaborative monitoring;
- c. Participate in the analysis of effectiveness of socio-economic mitigation measures.

## 2.7 Protection of Personal Information

It is recognized that, in collecting and sharing of any information and data under these Terms of Reference, each of the members of the Working Group is required to comply with any rules governing the collection, use, and disclosure of personal information, applicable to each member respectively, in accordance with the provisions of privacy legislation.

## 2.8 Information

The members acknowledge that:

- a. BIMC is best able to collect and provide data concerning employment and training in relation to the Project;
- b. the Government of Nunavut and the Government of Canada are best able to report public statistics on general health and well-being, food security, demographics and other socio-economic indicators at the community and territorial level; and
- c. the Qikiqtani Inuit Association is best able to provide information and data relating to Inuit land use and culture at the community and regional level.

## 3. OBJECTIVES

3.1 The Working Group has the overall goal of contributing to the ongoing expansion of knowledge related to interactions between communities in Nunavut and the Mary River Project. The priority is on knowledge that will ultimately assist in directing socio-economic benefit from the Project, enhance the accuracy of subsequent predictions related to socio-economic impact assessment, and improve the focus and efficiency of socio-economic monitoring.

3.2 The Working Group aims to undertake collaborative monitoring in order to identify and access priority data that will be useful in improving the socio-economic performance of the Mary River Project. This will involve combining Project-specific performance data with data generated by other member agencies. The resulting insight will be useful in supporting adaptive management measures implemented by member agencies to minimize adverse effects and maximize benefits from the project. The goal will be to analyze the monitoring data in order to assess the effectiveness of current practices; obtain early warning should mitigation measures not be achieving their intended outcome; and provide timely detection of unanticipated outcomes.

3.3 The Working Group aims to improve understanding of priority socio-economic issues in order to increase confidence in socio-economic assessment predictions. The Working Group will identify priority predictions contained in the Mary River Final Environmental Impact Statement (FEIS) and will then work to address how these predictions can be validated or how unanticipated trends/observations can be described.



3.4 The Working Group will provide monitoring data and objective analysis in a manner that is focused, efficient and cost-effective.

3.5 The Working Group will ensure that project-specific monitoring aligns, where appropriate, with QiSEMC priorities, such as, but not limited to:

- a. Health and well-being;
- b. Education, life skills, and training;
- c. Employment and career progression;
- d. Demographics;
- e. Land use, culture, food security; and
- f. Other priorities that may be identified by the QiSEMC.

#### **4. REPORTING AND COMMUNICATION**

4.1 BIMC or the successor owner/operator of the Mary River project will prepare an annual socio-economic report, presenting performance data, to the Nunavut Impact Review Board for review. These annual reports will be due on 30 June of each year, containing data on the indicators selected by the Working Group for the previous calendar year (January to December). These reports will further describe the Company's participation in the QiSEMC, other collaborative monitoring processes and any activities related to better understanding of socio-economic processes.

4.2 Following Project Certificate issuance and BIMC's decision to proceed with the construction of the Mary River project, annual reporting will commence following the start of site activities.

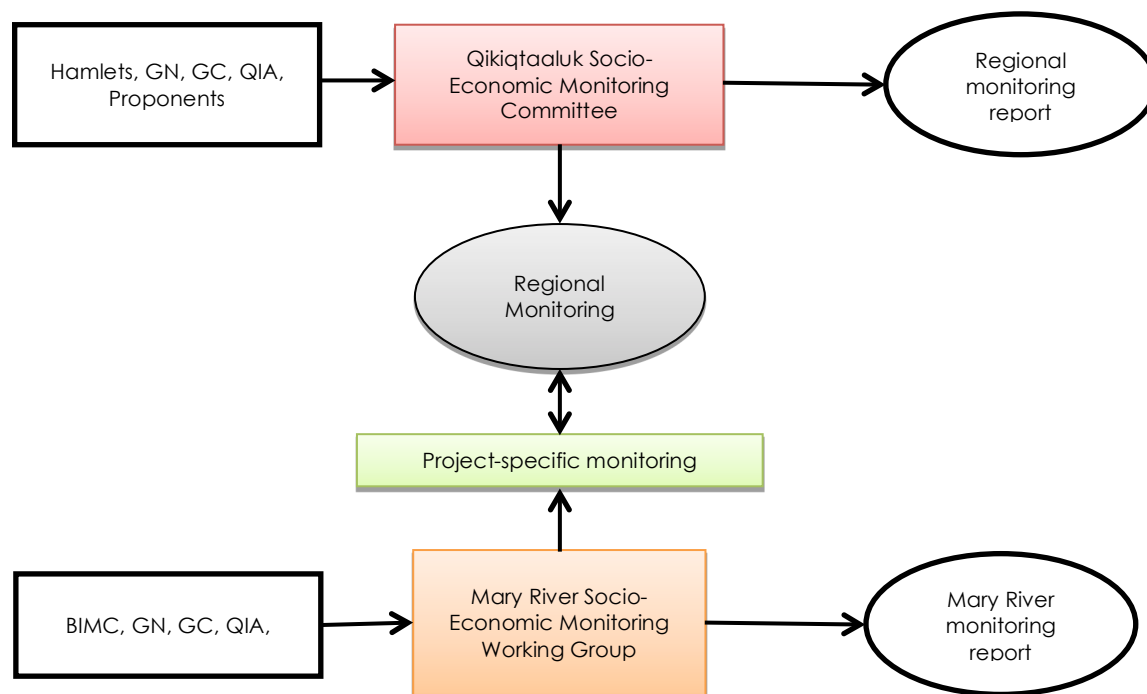
4.3 As appropriate, the Working Group may communicate with, and request data from, other issue-specific working groups that may arise throughout the life of the project.

#### **5. MEETINGS**

5.1 The first official meeting will be held within six (6) months of Certificate issuance or at the next QiSEMC following issuance, whichever is first.

5.2 The Working Group is to initially meet twice a year, preferably immediately prior to or immediately after the QiSEMC meetings. This meeting schedule may be changed at a later date if agreed to by all members.

5.3 BIMC will designate a Chair and optionally a Secretary for these meetings. BIMC's appointment of the Chair (which could include itself) recognises the significance of the weight of responsibility for reporting by the Company.



## 6. RELATION TO IIBA OBLIGATIONS

6.1 The parties recognize that this ToR is separate from any obligations under the Inuit Impact and Benefit Agreement (IIBA) between the proponent and the Qikiqtani Inuit Association and that the mandate of the Working Group shall not include monitoring of the IIBA.

6.2 Any sharing of information with the Working Group related to the IIBA will be solely at the discretion of the Qikiqtani Inuit Association and Baffinland Iron Mines Corporation or successor.

## 7. REVIEW OF TORS

7.1 These Terms of Reference may be reviewed by Working Group members periodically for any required changes that may be applicable as the Project evolves from construction, through operations and closure.

## **APPENDIX B: 2017 QSEMC & SEMWG MEETING MINUTES**

## **Qikiqtaaluk Socio-Economic Monitoring Committee Annual Meeting, July 5 & 6, 2017, Arctic Bay, Nunavut**

The meeting began with participant introductions. The following communities and other stakeholders were represented:

- Arctic Bay
- Cape Dorset
- Pangnirtung
- Sinikiluaq
- Pond Inlet
- Hall Beach
- Iqaluit
- Grise Fiord
- Qikiqtarjuaq
- Igloolik
- GN Department of Health
- GN Department of ED&T
- INAC NGMP
- Nunavut Bureau of Statistics
- Baffinland
- QIA

The community roundtable proceeded with a few items of note including

- The need for community freezers in almost all communities
- The need for more public housing
- Grateful for the employment from Baffinland in the communities in the LSA
- Lots of fishery exploration that has the potential of a positive economic effect in communities
- New infrastructure including hotels, daycares and housing units
- The need for more child care in all communities
- The need for community hall infrastructure in a number of communities especially for youth
- Overall infrastructure maintenance in all communities

Following the community roundtable, the GN department of Health gave a presentation. Discussions that followed included:

- Contaminated sites and how it impacts health
  - QIA steering committees are dealing with contaminated sites with NTI
- Meat studies for walrus and country food takes too long

- NRI just finished construction of a lab for testing – staff are being trained to do testing in Iqaluit which should decrease wait time for results
- Using statistical data, is there strategic planning that the GN is going to use to actually start this upstream planning process?
  - The GN needs to work together in all departments to start working in a systematic way to improve Nunavut as a whole

The meeting continued with a presentation from INAC on the Nunavut General Monitoring Program. Conversations that took place surrounded topics such as:

- Whether the data from projects being funded is shared publicly and how INAC is looking at making this info public
- The Nunavut Association of Municipalities (NAM) and the information they can provide to researchers including what needs to be researched
- The need for data from all institutions at a municipality level

After the lunch break, the presentation that followed was on behalf of the Nunavut Bureau of Statistics. Items of discussion that followed were:

- The many factors that can contribute to data trends
- The difficulty in relating specific trends directly to the Mary River Project since it's been in operation for a short time
- Collecting data for the sake of collecting data vs using this data and doing something with the information to make changes in Nunavut

The day ended with the Baffinland presentation and the discussion that followed. Items discussed included:

- Safety training and emergency response on-site
- Rotational shift issues for staff with children
- How staff can learn to properly manage money for their two weeks off the mine site
- The need to recruit and keep Inuit staff
- Work readiness programs that are successful for other Nunavut projects
- The need for childcare in communities and who plays a role in delivering these resources (QIA/GN/GoC/Proponent)
- The training for heavy equipment operators is great but there needs to be training for mechanics
- Pension planning and financial planning
- Shipping routes for the Project
  - \*\*Baffinland to send the map presented at the meeting\*\*
- The communities outside of the local looking for more hiring and employment opportunities at the project

- It was noted that jobs are open to all Baffin communities so all Qikiqtaaluk communities are equally eligible to apply

The second day of the meeting started with a recap of the previous day. Participants were given a document with the Valued Socio-Economic Components (VSEC's) for the Mary River Project. These VSEC's are:

1. Population Demographics
2. Education and Training
3. Livelihood and Employment
4. Economic Development and Self-Reliance
5. Human Health and Well-Being
6. Community Infrastructure and Public Services
7. Contracting and Business Opportunities
8. Cultural Resources
9. Resources and Land Use
10. Cultural Well-Being
11. Benefits, Royalty and Taxation
12. Governance and Leadership

The committee was asked to decide and order these VSEC's in number of importance to them. Discussions then followed surrounding these VSEC's, as well as any other relevant items according to the Qikiqtaaluk communities and stakeholders. The conversation took up the entire morning, and it proved to be a valuable morning full of discussions surrounding what communities feel are the most important to them, the region and the territory as a whole. These topics covered areas such as:

- Infrastructure for country food processing plants to provide for a local economy and better healthy food opportunities
- Racism resulting in Inuit turnover
- Mental health initiatives on-site and in the communities
- Human health and well-being needs to be a priority
- Conflict management and cultural sensitivity
- Employment leading to an increase in self-esteem
- The need for translations in communities at stores
- Smaller communities (especially farther away from the Mary River Project site) are not benefiting from education and training
- Drop-out rates from schools
- Where community members can find work if they have an education
  - Finding a lack of employment opportunities in the small communities even when people are well educated
- The need for mental health programs in communities and health centres
- Parents need education and guidance on good parenting skills
- The opportunity for role model programs in communities

- The need for cultural and recreational programs on-site at Mary River
- The disincentive in finding employment if you live in social housing
  - The more money you make, the more you pay in rent in social housing so to keep affordable rent people stay unemployed
- The need for recording Traditional Knowledge and IQ so young people can learn and carry on this knowledge
- Issues of racism on-site for local employees
- Stories of employees being demoted instead of promoted
- Turnover due to lack of childcare, homesickness, racism, 12 hour shifts being too long – need some breaks to enjoy recreational time
- The Elder advisor program is a good idea but it doesn't work when the Elder is not from the same community as the staff
- Mental health workers in communities do not keep information confidential – deters community members from using that resource
- Would like to see a program on behalf of Baffinland to see Elders receiving country food
- Royalties need to be better managed so that communities see more money

Overall, most VSEC's were touched on, but some that came up multiple times were:

- Human Health and Well-Being
- Education and Training
- Cultural Well-Being
- Community Infrastructure and Public Services

The meeting concluded with a decision on where the next QSEMC will be held. All members voted, and the decision was to host the next annual meeting in Sanikiluaq. The date will be determined at a later time.

Action items for the next meeting and the time leading up to the meeting are:

- Baffinland to send the map of the Mary River shipping route
- Have the community profiles provided by Department of Health translated
- The possibility of reporting on cultural activities on site at the Mary River Project

### **Project-Specific Action Items/Recommendations Issued at the 2017 QSEMC Meeting**

Two Project-specific action items/recommendations were issued by the QSEMC to Baffinland at the 2017 QSEMC meeting, to which Baffinland has provided the following responses:

**QSEMC Action Item/Recommendation #1:** Baffinland to provide a map of the Project's shipping route.

**Baffinland's Response:** Baffinland will provide a map of the Project's shipping route at the 2018 QSEMC meeting.

**QSEMC Action Item/Recommendation #2:** Baffinland to investigate the possibility of reporting on cultural activities on site at the Project.

**Baffinland's Response:** Baffinland has reported on cultural activities on site in its Annual Report to the NIRB (e.g. through Project Certificate Condition No. 155). Baffinland will also provide a summary of on site cultural activities at the 2018 QSEMC meeting.





**Meeting Notes**  
**Mary River Socio-Economic Monitoring Working Group (SEMWG) Meeting**  
**February 2, 2017 (300pm – 445pm)**  
**By Teleconference**

**Attendees:**

*Baffinland Iron Mines Corporation (Baffinland):*

Mary Hatherly  
Adam Grzegorzcyk  
Jason Prno (consultant)  
Richard Cook (consultant)

*Government of Nunavut (GN):*

Lou Kamermans  
Chantelle Masson  
Erika Zell  
Arielle Stockdale

*Qikiqtani Inuit Association (QIA):*

Rebecca Mearns  
Shane Cameron (consultant)

*Indigenous and Northern Affairs Canada (INAC)*

David Abernethy  
Rachel Theoret-Gosselin

**Other Information:**

Jason Prno facilitated the meeting. Richard Cook took meeting notes.

**Meeting Notes:**

- 1. Introductions (All)**
- 2. Update on the 2016 Socio-Economic Monitoring Report (Baffinland)**
  - a. In preparation, to be submitted with NIRB Annual Report
  - b. Similar in structure and content to 2015 report, which was a significant departure from previous reports. Now much more comprehensive, with additional indicators added.

This was done to bring the report better in line with EIS indicators and PC conditions. The report has been improved further for 2016.

- c. 2015 report – Issued in draft to get feedback from the SEMWG, so we’ve taken that feedback and have incorporated it into the 2016 report.
- d. A new addition to the 2016 report – Revamp of employee information survey. This will be an addition to the 2016 report.
- e. Baffinland is considering the inclusion of a trends analysis in the 2016 report; similar to the NWT Communities and Diamonds report and more recently the Meadowbank monitoring report. Looking forward to obtaining SEMWG feedback on the approach, when people review the 2016 report.
- f. Currently have most of the government data we need for the 2016 report, just waiting on company data for 2016.
- g. Inuit employment was lower than Baffinland would like in 2016, and Inuit turnover was higher than they would like. Baffinland is taking active steps to address this. An Inuit HR Strategy and Inuit Procurement Strategy are in the final stages of preparation.
- h. Baffinland will table the draft Inuit HR Strategy with QIA for discussion. It includes high level commitments which are intended to assist Baffinland/contractors in meeting or exceeding the MIEG. First goal is to strengthen stakeholder engagement and collaboration. Second goal is to strengthen data collection processes. Want to see employee skills and match that with upcoming needs, to be able to identify training initiatives required. Want to roll out a revamped Work Readiness Program, which will be run as a pilot in 2017 with the intention to deliver 2x/year in each community in subsequent years.
- i. Want to improve recruitment, and develop a process to catch issues in first 8 weeks following site employment to identify and address employee concerns. A number of initiatives are being looked at with regards to youth fairs, scholarships, and developing programs for youth and women to gain experience/exposure on-site. What has been lacking is a process of monitoring and an evaluation framework. Some initiatives to discuss with QIA in the future include joint training for BCLOs/CLOs, HR career information tour, and an on-site apprenticeship program. New instructions to contractors are also envisioned (want to improve contractor reporting of Inuit employment), with incentive and penalty schemes attached. Baffinland is revising its onboarding and retention programs. Baffinland would like to create a mechanism to track employee concerns, including complaints/grievances. Voluntary employee survey is also being looked at.
- j. Inuit HR Strategy is a companion piece to Inuit Procurement Strategy.
- k. Company takes Inuit employment very seriously, and we acknowledge Baffinland has not met targets. Want to encourage Inuit employment but equally important is retention and advancement of Inuit through the workforce. Baffinland will be developing 3 to 5 year goals to address training, recruitment, advancement and retention.
- l. RE: 2016 monitoring program data - Some data remains only available at the territorial level. Where data is lacking, Baffinland will continue to track issues through the QSEMC process and Baffinland’s community engagement program.

2275 Upper Middle Road East, Suite 300 | Oakville, ON, Canada L6H 0C3  
Main: 416.364.8820 | Fax: 416.364.0193 | [www.baffinland.com](http://www.baffinland.com)

### ***Questions and comments on 2016 Socio-Economic Monitoring Report (All)***

LK – Will we follow the same process as last year of circulating a draft to the SEMWG before the annual report?

JP - Won't be able to get a draft report out before annual report, because of when data becomes available. The purpose of the draft last year was to provide an opportunity to get comments on the new reporting format.

LK – It's a practice we advocate for. Meadowbank has provided early drafts, but has latency in their reporting. TMAC has provided us with a draft before. Maybe we can have communication with Baffinland before the annual report is submitted so we don't have to go through NIRB process with formal comments.

JP – That's what we were looking at, and part of why we wanted to have this call, because one face-to-face meeting a year makes continuity difficult. Perhaps more regular teleconferences with the SEMG would address this concern.

RM – We can be available more often for these types of calls.

JP – Richard is taking notes and we'll circulate them to the SEMWG.

DA – How will the trends analysis be different from what you are already doing?

JP – This is something we looking at for 2016, but wanted to talk to the group before moving too much farther ahead. We haven't done this before, but are considering analyzing trends before/after development and year over year. We're interested in a dashboard approach.

DA - Will this be presented in bar charts, etc.?

JP – To be determined. But, It would be nice to agree on common indicators so we can compare projects across the territory.

DA – We'll wait and see what you produce; we're looking forward to seeing what is done.

AG – We are still a young project and therefore have only ~2 years of operational data. So, we are just now getting to the point where we can do trends analyses. It will depend on available data and length of the dataset.

### **3. Obtain working group feedback on the new Baffinland Employee Information Survey**

JP – Baffinland decided to revamp is survey to achieve PC condition requirements. A draft of the survey documents were distributed to the SEMWG members prior to this call. One PC condition specifically

asked us to work with QSEMC in developing the survey, so this is why we asked this group (which is a subset of the QSEMC) for feedback. Baffinland will issue the survey to all new employees as part of the onboarding process. Survey will be voluntary. Inuit employees living within and outside of Nunavut will be asked to complete the survey, in addition to non-Inuit employees living in Nunavut. Wouldn't be administered to contractors. One of the PC conditions focuses on migration, and we have tailored our questions as such. We are hoping to generate initial data in Q1-2017 for the 2016 monitoring report. Afterward, survey results will be reported by calendar year. Hope to get information out for the 2016 report, but results may need to be presented at a later date if this is not possible. Feedback on the survey from the SEMWG is requested.

AS – We added a number of suggested questions on the survey. Does everyone have them with track changes?

JP – They were only issued to Baffinland.

AS – There were two subsets of questions we added. The first were questions on respondents' current housing situation. Overcrowding is a very important topic. For the people finding employment, what is their current situation, and will employment affect their housing situation? The majority of Nunavummiut live in public housing. With increased income, will different options be available to them? We want to take advantage of employment by bringing people out of public housing, if it is possible. If the survey is for incoming employees only, the data we collect may be more limited. Or is it for outgoing employees too?

JP – The survey is planned to be administered only during the onboarding of new employees.

AS – So it may be premature to ask about home ownership, since new employees might not know what employment will mean for their housing. So maybe asking questions on their current housing situation is sufficient.

LK – The PC condition states an annual survey will be conducted.

JP – Survey results would be reported annually for new hires. Baffinland really struggled with obtaining survey responses before when on-site HR staff tried to survey employees. They received lots of push back. We thought best way to get feedback year after year was by integrating the survey into the new employee onboarding process.

LK – Voluntary surveys are hard to do. But seeing changes over time will be difficult if you're surveying each employee only once.

JP – Good point. We can talk about this further. But the poor reception of survey last year is why we are proposing what we are now.

LK – Getting that information right away is critical, but it needs to be followed up on to see changes over time.

JP – Comparability diminishes if a given employee fills it out once, and then doesn't fill it out, for example, until 5 years later, or never fills it out again. So the GN would prefer to have survey administered voluntarily every year?

LK/AS – From housing perspective, it would be difficult to figure out impact of the project over time otherwise. I like the idea that the survey can be anonymous, but it could be useful to analyze cohorts (e.g. what is the housing situation for new employees vs. employees after 5 years, etc.?). The data is a lot less valuable when it is not collected annually.

AG – From the proponent's perspective it is our preference to collect this data, but we had a strong pushback from our employees when we last tried. We can't make people do the survey, so that's why we proposed the approach we did.

JP – There is another point that we want to discuss – There are a number of housing questions added by the GN that divert from the essence of the PC condition. We want a survey that is focused on what is required to be collected, is simple and easy to complete, and reduces barrier to having people complete it.

LK – We took the approach that we weren't necessarily limited to what was specified in the PC. NIRB doesn't always incorporate all comments made by reviewing parties into their PCs. We ultimately want to know if the projects provide a benefit. I don't think the questions we added change the direction of the survey. The GN can provide more information / comments on why the questions are needed, if you like? Or could Baffinland highlight those that are not applicable?

JP – We can send you our comments if you like. Did INAC or QIA have any comments on the survey?

RM – We've looked at the survey and share concerns with the GN re: only conducting the survey on new employees. Is there way to look at trends? We do have some comments/suggestions we can provide in writing. We also have an upcoming JMC meeting in Oakville. One thing on the agenda for some time has been the development of a workplace conditions survey. This would be done with current employees at Baffinland, as a requirement of the IIBA. We have been discussing with Baffinland a survey with employees or employment coordinators. Is there a way to integrate the workplace conditions survey with this survey? And could you use Inuit employment coordinators to get participation? It's not clear how the previous survey was rolled out and communicated – It's worth looking into. Getting respondents to fill out a survey can be difficult. It's important to explain why the survey is being conducted and how it will benefit things.

JP – I wasn't aware of this other survey; it's worth considering combining them both.

MH – It's on the agenda for the JMC for next week, so we can talk about it then?

RM – Yes, combining the surveys would be much better, if possible. We will send comments on re-wording questions or with follow up questions. Is there a need to include the employee's names on the survey? Or can they remain anonymous?

RC – Have other companies conducted such surveys?

LK – Meadowbank conducted a survey several years back, and found it very helpful. I will look into whether or not the Meadowbank survey is shareable.

DA – Re: survey question 9 on community location – Are you trying to see what community they would want to relocate to?

JP – Community employment location would be specific to BCLOs or Baffinland Iqaluit staff.

DA – Regarding the need to complete the survey annually, I agree with the GN's interpretation of the Project Certificate.

[Unrecorded comments]

RTG – My comments on survey were already brought up. Re: confidentiality - Make it clear their name is optional as it currently appears mandatory. We need to read up PC Condition No. 133 and what its actual intention was. You should find a way to monitor change of status. Could you survey 1-year, 3-year, and 5-year employees?

#### **4. Discuss Baffinland's plans for addressing the socio-economic impact assessment portion of the Phase 2 EIS.**

[RC provided an update on the status of the Phase 2 review and EIS]

JP – For the Phase 2 baseline, the goal is to draw on and reference the considerable amount of baseline work that has already been prepared for the Project. The intention is not to present an updated baseline report. Plenty of monitoring data has been generated since the FEIS. We want to focus on what we're already monitoring and what's already been determined to be important to monitor. For the impact assessment, we want to focus only on the residual effects assessed in the FEIS (largely leaving aside subjects of note and other topics and information). We will discuss and provide summary information on how each of the residual effects will or will not change due to the Phase 2 Proposal. If any of these effects are expected to change significantly, a more detailed effects assessment discussion will be provided.

LK – From reviewing the ERP, it was very hard to see what was being studied and what numbers we were working with, because the document was flipping between the FEIS and ERP addendum. Nailing down how we are going to refer to the project, as it now includes the southern rail line, will be important.

[RC – Defined the 4 stages of Phase 2]

EZ – When will the proposal go to NPC?

AG – In the next couple of days.

RTG – Have you discussed with NIRB if there would be a screening phase?

RC – Baffinland already has amended guidelines, so the best case is that they proceed right to review. But we don't know what NIRB will decide in terms of next steps.

AG - Yes, we will be meeting with NIRB next week.

## **5. Other Matters**

LK – The GN is contemplating a territorial socio-economic monitoring workshop, an idea which was borne out of the Kitikmeot SEMC. Realizing we will likely have projects in each region soon, we don't currently get a full perspective of how the industry is affecting the territory. We would like to see aggregated territorial reports. The workshop would bring industry and other players together to discuss indicators, processes, and how to approach socio-economic monitoring in the near future. We also want regional Inuit organization attendance and input, so will send details to you shortly. If we're all on the same page, we will start into the planning, logistics, and development of materials. We were at one point thinking April would be the best time for the workshop, but the earliest now is May.

[Meeting adjourned at 4:45 pm]



## Meeting Notes

### Mary River Socio-Economic Monitoring Working Group (SEMWG) Meeting

September 14, 2017 (5:00pm-6:00pm)

Frobisher Inn – Iqaluit, Nunavut

#### **Attendees:**

##### *Baffinland Iron Mines Corporation (Baffinland):*

Mary Hatherly (MH)

Andrew Moore (AM)

Jason Prno (consultant) (JP)

##### *Government of Nunavut (GN):*

Lou Kamermans (LK)

Chantelle Masson (CM)

Rhoda Katsak (RK)

##### *Qikiqtani Inuit Association (QIA):*

Rebecca Mearns (RM)

Shawn Harriman-Byrne (SHB)

##### *Indigenous and Northern Affairs Canada (INAC)*

David Abernethy (DA)

Julia Prokopick (JP-INAC)

#### **Other Information:**

Lou Kamermans chaired the meeting. Andrew Moore took meeting notes.

#### **Meeting Notes:**

##### **1. Introductions (All)**

##### **2. NIRB Draft Appendix A**

LK - Introduced the topic and began discussion. Indicated that the MRSEMWG is largely self-directed and should continue work as such.

MH - Indicated that BIM intends to provide comments to NIRB on Appendix A, but has not yet.

RK - Asked for more information about what is included in NIRB's Appendix A.

JP – Provided some initial comments about Appendix A and indicated that they will be elaborated on in a formal submission. Indicated that BIM has a desire to strengthen the role of this working group as it relates to socio-economic monitoring.



LK - Indicated that that GN has reviewed Appendix A, but not yet in enough detail to provide extensive comments. The GN intends to share their comments with members of the working group prior to submitting them to NIRB.

JP - Should include Megan Lord-Hoyle of Baffinland in conversations about this to ensure she is engaged on this work and all comments related to Appendix A.

LK - Next step is for GN to get in touch with Mary H. and provide comments, and to make a concerted effort to align comments provided by working group members to NIRB.

DA - Wants clarity on reporting/commenting approach.

LK - Provided clarification. Indicated that comments are due October 22

### **3. Role of Socio-Economic Monitoring in NIRB Community Information Sessions**

LK - This was raised by Rhoda. Indicated that SEMC representative should be present at these meetings. Provided some clarity on what the NIRB community visits consist of and why an SEMC representative should attend.

JP - GN would be the SEMC representative on these community visits?

LK - Asked for working group member opinions on this matter.

MH - We would need to discuss this internally first and see who would be the best representative to attend.

RK – NIRB typically talks about territorial and marine monitoring but not socio-economic issues at these meetings.

LK – We will talk to NIRB and see what opportunities exist for SEMC participation.

DA - Has the GN gone in the past? Believes that INAC has had people participate in the past.

LK - Will check with GN internally to see what works.

?? – There are lots of separate community visits, and lots of information is provided to communities. This is lots of duplication. Should we be collaborating?

DA - Thinks INAC does try to collaborate timing. But is not sure. Agrees that duplication is bad.

LK - Will follow-up with NIRB to see about collaboration.

RK - BIM does regular community update sessions. NIRB does it annually, but provides mostly environmental information. We need more socio-economic information in the communities. We need more public reporting.

JP – I've attended scoping sessions held by NIRB in the past. These kinds of sessions are managed and led by NIRB; they may be hesitant to have companies play too big a role in these sessions.

LK - Good point. Someone from the SEMC would good be a good representative to talk objectively.

### **4. Plans for 2017 Socio-Economic Monitoring Report - Incorporation of Workshop Deliverables**

JP - Provided update on plans for 2017 report. Indicated that 2017 report will be similar to last year's layout. Some changes may occur, but they will not be significant.

LK - After the workshop, the working group should have a follow-up chat. Should we meet before a draft workshop report is issued or after?

MH/JP – If we meet following issuance of the draft report it would allow for substantive discussion.

JP – I know other companies have issued their annual socio-economic monitoring reports in draft previously. I'm not sure this is something Baffinland can do, because reports are due March 31<sup>st</sup> and all data may not be received until close to submission time.

LK - AEM submits in December. Allows for a draft report review process. This is not something that GN endorses or would necessarily like to implement elsewhere. Provided an explanation of history of how AEM reporting is structured and why.

JP/MH - Timing remains an issue for us to provide a draft report. However, we're happy to provide an update by phone to the working group like we did last year.

LK – It would be a good idea for a draft report to be issued, to allow for better incorporation of reviewer perspectives. Can Baffinland provide a basic draft report?

JP/BM – Our submission timeline is a NIRB timeline. We don't have much flexibility re: timing.

JP – Baffinland's NIRB Annual Report draws heavily on the Socio-Economic Monitoring Report so it is very important to get done by March 31<sup>st</sup>.

LK - If it's not possible, then Baffinland can expect more feedback on the final report.

JP – BIM is fine with that. However, our preference is to deal with these issues to the greatest degree possible at working group level, as this is the group that contains the monitoring experts.

LK - As a practice, we will work with deadlines given to produce NIRB comments. We can decide whether to address issues at the working group level or formally through NIRB.

JP - We should aim to have a teleconference ahead of formal submission to discuss comments.

DA - Agrees. This is also done in the water licensing process. Allows for a simple discussion to avoid any misconceptions.

## **5. Baffinland Phase 2 Proposal EIS Update**

MH - Provided Phase 2 update. EIS is being worked on but no clear timeline for submission to NIRB yet as there are outside factors to consider such as the NPC review.

LK - How is Baffinland's relationship with NPC?

MH – We're concerned about the lengthy consideration of Phase 2. But our aim is to keep relationships amicable, which is in the best interest of all parties.

JP – I am part of the team working on the Phase 2 Proposal socio-economic impact assessment. BIM would like to use this working group to discuss socio economic issues related to Phase 2 impact assessment issues, if possible.

LK - Agrees. Thinks that is a great approach. GN will be consistent in where its socio-economic priorities are.

DA – Re: monitoring report in April. Can there be a meeting where the monitoring report is initially presented?

## **6. MRSEMWG Follow-up to Reviewer Comments - 2016 Socio-Economic Monitoring Report**

JP - BIM is here to address working group comments/answer questions. We have replied to GN and QIA comments to NIRB already in writing. Would like to deal with future comments in this forum, where possible.

RK – There were lots of comments in the report about employment. Arctic Bay was the highest employment community. This is interesting, as Pond Inlet is a bigger community. What is Baffinland

doing to retain employees? This question was asked at a community meeting in the past. It was not followed-up on at the July meeting this year. Should we as a group proactively bring up these issues? JP - BIM has made new commitments in this area, such as those related to the IHRS, MIEG, and IPCS. They are all part of the response to this concern. We are happy to report back as additional concerns are heard.

MH/RK – We need to come up with a meaningful way to answer these questions.

DA - What about your work ready program? Please provide a summary.

MH – Summarized plans for revised work ready program.

RK/LH - SEMC should be addressing these concerns in its reports. Territorial monitoring may be the best way to address these concerns. This would just be a general good practice.

JP - Detailed records of SEMC meeting minutes are very important to maintain, even in the new territorial monitoring report format.

LK - As proposed, an appendix would contain a summary of meeting minutes.

## **7. Review and Update of SEMWG TOR**

LK - Should the TOR be re-considered?

JP – We'll need to take this back and see where improvements can be made from a BIM perspective.

LK - Shared and explained org. chart that is being worked on with Agnico-Eagle (AEM). Open to looking at this for inclusion in BIM's TOR. Will seek AEM permission to share this with the Mary River working group.

JP - Maybe we should wait until the AEM chart is finalized?

LK - When we review the TOR we should be more explicit about appointing a Chair. Anyone have a different opinion?

Group - No objections.

JP - Asked clarifying questions about Chair responsibilities.

LK - Explained and shared GN's view on responsibilities (i.e. to organize and host working group meetings, facilitate meetings, take notes).

DA - As we go through the TOR it will be beneficial to clarify expectations. Create greater structure related to deliverables, and maybe have quarterly calls?

[Meeting adjourned at 5:54 pm]

APPENDIX C: CONCORDANCE WITH PROJECT CERTIFICATE TERMS AND CONDITIONS RELATED TO SOCIO-ECONOMIC MONITORING

Term and Condition No.	Category	Term or Condition	2017 Socio-Economic Monitoring Report Reference	Baffinland Comments
129	Population Demographics – Qikiqtaaluk Socio-Economic Monitoring Committee	The Proponent is strongly encouraged to engage in the work of the Qikiqtaaluk Socio-Economic Monitoring Committee along with other agencies and affected communities, and it should endeavour to identify areas of mutual interest and priorities for inclusion into a collaborative monitoring framework that includes socio-economic monitoring priorities related to the Project, communities, and the North Baffin region as a whole.	Section 1.2 Section 1.4 Appendix A Appendix B	Baffinland continues to engage with the QSEMC and participates in the Mary River SEMWG, a sub-set of the QSEMC whose members include Baffinland, the Government of Nunavut, the Government of Canada, and QIA. A Terms of Reference for the SEMWG (which identifies socio-economic monitoring priorities and objectives for the Project) has been finalized. Baffinland incorporated feedback from SEMWG members in 2016 to finalize the Project’s socio-economic monitoring plan. Baffinland also continues to refine its socio-economic monitoring program based on feedback received from Project stakeholders.
130	Population Demographics – Project-specific monitoring	The Proponent should consider establishing and coordinating with smaller socio-economic working groups to meet Project specific monitoring requirements throughout the life of the Project.	Section 1.2 Appendix A Appendix B	Baffinland continues to work with the QSEMC and the SEMWG on socio-economic monitoring initiatives. In addition, Baffinland regularly engages other committees which operate under provisions of the IIBA on various socio-economic topics.
131	Population Demographics – Monitoring demographic changes	The Qikiqtaaluk Socio-Economic Monitoring Committee is encouraged to engage in the monitoring of demographic changes including the movement of people into and out of the North Baffin communities and the territory as a whole. This information may be used in conjunction with monitoring data obtained by the Proponent from recent hires and/or out-going employees in order to assess the potential effect the Project has on migration.	Section 3.1 Section 3.2 Section 3.3 Section 3.4 Appendix E	Baffinland has provided demographic change information in the Socio-Economic Monitoring Report. Baffinland has also implemented an Inuit Employee Survey, which collects information related to employee and contractor changes of address, housing status, and migration intentions.
133	Population Demographics – Monitoring demographic changes	The Proponent is encouraged to work with the Qikiqtaaluk Socio-Economic Monitoring Committee and in collaboration with the Government of Nunavut’s Department of Health and Social Services, the Nunavut Housing Corporation and other relevant stakeholders, design and implement a voluntary survey to be completed by its employees on an annual basis in order to identify changes of address, housing status (i.e. public/social, privately owned/rented, government, etc.), and migration intentions while respecting confidentiality of all persons involved. The survey should be designed in collaboration with the Government of Nunavut’s Department of Health and Social Services, the Nunavut Housing Corporation and other relevant stakeholders. Non-confidential results of the survey are to be reported to the Government of Nunavut and the NIRB.	Section 3.4 Appendix E	Baffinland has implemented an Inuit Employee Survey, which collects information related to employee and contractor changes of address, housing status, and migration intentions. Baffinland continues to discuss the content and results of the survey with members of the SEMWG and will continue to solicit feedback on potential improvements to the survey.
134	Population Demographics – Employee origin	The Proponent shall include with its annual reporting to the NIRB a summation of employee origin information as follows: a. The number of Inuit and non-Inuit employees hired from each of the North Baffin communities, specifying the number from each; b. The number of Inuit and non-Inuit employees hired from each of the Kitikmeot and Kivalliq regions, specifying the number from each; c. The number of Inuit and non-Inuit employees hired from a southern location or other province/territory outside of Nunavut, specifying the locations and the number from each; and d. The number of non-Canadian foreign employees hired, specifying the locations and number from each foreign point of hire.	Section 3.5	Baffinland has presented employee and contractor origin information in the Socio-Economic Monitoring Report.
140	Education and Training – Survey of Nunavummiut employees	The Proponent is encouraged to survey Nunavummiut employees as they are hired and specifically note the level of education obtained and whether the incoming employee resigned from a previous job placement or educational institution in order to take up employment with the Project.	Section 4.4 Appendix E	Baffinland has implemented an Inuit Employee Survey, which collects information related to employee and contractor education levels, and education and employment status prior to taking up employment with the Project.
145	Livelihood and Employment – Barriers to employment for women	The Proponent is encouraged to work with the Government of Nunavut and the Qikiqtaaluk Socio-Economic Monitoring Committee to monitor the barriers to employment for women, specifically with respect to childcare availability and costs.	Section 5.4	Baffinland has presented information on women employed at the Project and potential barriers they may face in the Socio-Economic Monitoring Report. Furthermore, specific reference is made in the Mary River Project IIBA to women in the workplace and the associated barriers they may face. This topic is addressed by Baffinland and QIA through Article 7.15 of the IIBA.
148	Economic Development and Self-Reliance, and Contracting and Business Opportunities – Food security	The Proponent is encouraged to undertake collaborative monitoring in conjunction with the Qikiqtaaluk Socio-Economic Monitoring Committee’s monitoring program which addresses Project harvesting interactions and food security and which includes broad indicators of dietary habits.	Section 7.2 Section 9.1 Section 10.1	Baffinland has presented information on Project harvesting interactions and food security in the Socio-Economic Monitoring Report. Baffinland has also presented related information on household income and food security, and land user-Project interactions in this report.
154	Human Health and Well-being – Indirect impacts to health and well-being	The Proponent shall work with the Government of Nunavut and the Qikiqtaaluk Socio-Economic Monitoring Committee to monitor potential indirect effects of the Project, including indicators such as the prevalence of substance abuse, gambling issues, family violence, marital problems, rates of sexually transmitted infections and other communicable diseases, rates of teenage pregnancy, high school completion rates, and others as deemed appropriate.	Section 4.2 Section 7.3 Section 7.4 Section 7.6 Section 7.7 Section 7.8 Section 7.9 Section 7.10	Baffinland has presented information on the prevalence of substance abuse, gambling issues, family violence, marital problems, rates of sexually transmitted infections and other communicable diseases, rates of teenage pregnancy, high school completion rates, and other topics (e.g. crime rates, EFAP usage) in the Socio-Economic Monitoring Report.

Term and Condition No.	Category	Term or Condition	2017 Socio-Economic Monitoring Report Reference	Baffinland Comments
			Section 7.11 Section 7.12	
158	Community Infrastructure and Public Services – Impacts to health services	The Proponent is encouraged to work with the Government of Nunavut and other parties as deemed relevant in order to develop a Human Health Working Group which addresses and establishes monitoring functions relating to pressures upon existing services and costs to the health and social services provided by the Government of Nunavut as such may be impacted by Project-related in-migration of employees, to both the North Baffin region in general, and to the City of Iqaluit in particular.	Section 1.2 Section 7.2 Section 7.9 Section 8.3 Appendix A Appendix B	<p>Baffinland continues to work with the QSEMC and the SEMWG on socio-economic monitoring initiatives; the Government of Nunavut (GN) actively participates in both these groups. A Memorandum of Understanding (MOU) was also signed with the GN Department of Health in November 2013 and subsequently updated in 2017 regarding site health services and medevac procedures. More specifically, this MOU describes the health care staff and services Baffinland will provide on-site, including procedures Baffinland will follow during medevac situations, for pre-employment medical examinations, and for the reporting and management of communicable diseases, amongst other topics. The MOU also describes how Baffinland will pay for and/or reimburse the GN Department of Health for costs associated with the medical transportation of employees and for conducting pre-employment medical exams.</p> <p>Baffinland has provided information on potential socio-economic effects of the Project in its Socio-Economic Monitoring Report. This includes indicator data related to pressures on existing health and social services provided by the GN that may be impacted by Project-related in-migration of employees (i.e. percentage of the population receiving social assistance, percent of health centre visits related to infectious diseases, total and per capita number of health centre visits in the LSA, number of visits to Project site medic).</p>
159	Community Infrastructure and Public Services – Impacts to infrastructure	The Proponent is encouraged to work with the Government of Nunavut to develop an effects monitoring program that captures increased Project-related pressures to community infrastructure in the Local Study Area communities, and to airport infrastructure in all point-of-hire communities and in Iqaluit.	Section 8.4	Baffinland has presented information on Project-related pressures on community infrastructure in the Socio-Economic Monitoring Report.
168	Governance and Leadership – Monitoring program	The specific socioeconomic variables as set out in Section 8 of the Board’s Report, including data regarding population movement into and out of the North Baffin communities and Nunavut as a whole, barriers to employment for women, Project harvesting interactions and food security, and indirect Project effects such as substance abuse, gambling, rates of domestic violence, and education rates that are relevant to the Project, be included in the monitoring program adopted by the Qikiqtani Socio-Economic Monitoring Committee.	Section 3.1 Section 3.2 Section 3.3 Section 3.4 Section 4.2 Section 5.4 Section 7.2 Section 7.3 Section 7.4 Section 7.6 Section 7.7 Section 10.1	Baffinland has presented information on demographic change, barriers to employment for women, Project harvesting interactions and food security, and potential indirect Project effects such as substance abuse, gambling, rates of domestic violence, and education rates in the Socio-Economic Monitoring Report.
169	Governance and Leadership – Monitoring economic effects	The Proponent provide an annual monitoring summary to the NIRB on the monitoring data related to the regional and cumulative economic effects (positive and negative) associated with the Project and any proposed mitigation measures being considered necessary to mitigate the negative effects identified.	Section 12.1.2	Baffinland has provided a summary of regional and cumulative economic effects in the Socio-Economic Monitoring Report.

APPENDIX D: RESPONSES TO NIRB RECOMMENDATIONS ON THE 2016 SOCIO-ECONOMIC MONITORING REPORT

NIRB Recomm. No.	Description	Baffinland Response	2017 Socio-Economic Monitoring Report Reference (If Applicable)
14	The Board requests that Baffinland, in consultation with the Qikiqtaaluk Socio-Economic Monitoring Committee, develop robust indicators to measure and survey the in-migration and out-migration of Inuit and non-Inuit residents in the North Baffin LSA and discuss how this may affect local housing opportunities within the LSA. It is requested that Baffinland conduct a survey of the Inuit employee turnover rate on an annual basis and that the results of the survey be included within the 2017 Annual Report to the Nunavut Impact Review Board.	<p>Baffinland has addressed this recommendation in several ways. Foremost, Baffinland already monitors in- and out-migration of Inuit and non-Inuit residents in the North Baffin LSA through various indicators:</p> <ul style="list-style-type: none"><li>Known in-migrations of non-Inuit Project employees and contractors (obtained from an annual survey of Baffinland Community Liaison Officers in each North Baffin LSA community).</li><li>Known out-migrations of Inuit Project employees and contractors (obtained from an annual survey of Baffinland Community Liaison Officers in each North Baffin LSA community).</li><li>Employee changes of address and migration intentions (obtained from an annual survey of Inuit employees and contractors at Project sites).</li><li>Population estimates/changes in the percentage of Inuit versus non-Inuit residents in the North Baffin LSA (obtained from the Nunavut Bureau of Statistics).</li></ul> <p>Monitoring results provide a relevant overview of in- and out-migration trends in the North Baffin LSA. Potential effects on local housing opportunities within the North Baffin LSA are also described in the socio-economic monitoring report. Baffinland acknowledges additional in- and out-migration data for non-Inuit and Inuit North Baffin LSA residents are currently unavailable from the Nunavut Bureau of Statistics (i.e. annual, community-level data). Baffinland also acknowledges statistical data collection in this area is primarily a government activity. Baffinland will endeavour to include new relevant data should it become available in the future. Baffinland will also continue consulting with the QSEMC and SEMWG on potential improvements to the Project’s monitoring program. Most recently, the issue of Project ‘data gaps’ was discussed during the July 2016 QSEMC in Arctic Bay and September 2017 territorial socio-economic monitoring workshop held by the Government of Nunavut in Iqaluit. For example, the topic of in- and out-migration of employees was discussed during the September 2017 workshop and draft recommendations for monitoring this topic have now been provided by the Government of Nunavut (2017). Baffinland’s monitoring program for the North Baffin LSA conforms to these recommendations. In addition, Baffinland has provided both Inuit and non-Inuit employee turnover rates in its socio-economic monitoring report. Baffinland also understands additional employee survey questions on housing may be recommended by the Government of Nunavut in 2018. An opportunity to discuss potential new and/or reformulated survey questions will be considered in 2018. A draft response to NIRB recommendation no. 14 was provided to the SEMWG on February 8, 2018 and a teleconference to discuss it was held on February 14, 2018. No major concerns on this response were raised by SEMWG members. However, the Government of Nunavut re-iterated it was developing a list of recommended employee survey questions that will be shared with Baffinland in the future.</p>	Section 3.1 Section 3.2 Section 3.3 Section 3.4 Section 5.3
15	The Board requests that Baffinland consult with the Qikiqtani Inuit Association in discussing priorities regarding monitoring of non-Inuit residents and contractor employees in the local study area, and where applicable, provide information regarding Baffinland’s Inuit employee payroll, in order to provide an understanding of the expansion of the local market for consumer goods and services within the local study area. It is requested that this data be included within the 2017 Annual Report to the Nunavut Impact Review Board.	Baffinland has addressed this recommendation by including detailed employment data in its socio-economic monitoring report. Specifically, quarterly employment data is provided that depicts the origin, number, and Inuit/non-Inuit ethnicity of Project employees and contractors in the LSA. Baffinland also includes payroll data for Inuit and non-Inuit LSA employees (contractor data is unavailable), in addition to the total value of its Inuit employee payroll (which includes Inuit living outside the LSA). Employment-related topics are also regularly discussed between Baffinland and the QIA through various IIBA committees. A draft response to NIRB recommendation no. 15 was provided to the SEMWG on February 8, 2018 and a teleconference to discuss it was held on February 14, 2018. No major concerns on this response were raised by SEMWG members, including QIA.	Section 3.5 Section 6.2
24	The Board requests that Baffinland assess Project-related influences on housing in the North Baffin Local Study Area, as well as to continue developing employee surveys to properly address all socio-economic indicators likely to arise due to migration. It is requested that the results of the survey be provided and incorporated within the 2017 Annual Report to the Nunavut Impact Review Board.	Baffinland has addressed this recommendation by complying with Project Certificate term and condition no. 133, which requests that Baffinland design and implement an employee survey to identify changes of address, housing status, and migration intentions. The current Inuit Employee Survey addresses all these requirements. Baffinland also discusses potential Project-related influences on housing related to migration in its socio-economic monitoring report. However, Baffinland has made itself available to the SEMWG and QSEMC to discuss potential improvements to the Project’s monitoring program and understands additional employee survey questions may be recommended by the Government of Nunavut in 2018. An opportunity to discuss potential new and/or reformulated survey questions will be considered in 2018. A draft response to NIRB recommendation no. 24 was provided to the SEMWG on February 8, 2018 and a teleconference to discuss it was held on February 14, 2018. No major concerns on this response were raised by SEMWG members. However, the Government of Nunavut re-iterated it was developing a list of recommended employee survey questions that will be shared with Baffinland in the future. The Government of Nunavut also confirmed its final socio-economic monitoring workshop report would be issued soon.	Section 3.2 Section 3.3 Section 3.4 Appendix E
25	The Board requests that Baffinland adhere to the recommendation of the Government of Nunavut to provide examples of negative changes or concerns reported in the community surveys and a description of how Baffinland intends to address these impacts and confirm that proper mitigation measures have been implemented. The positive and negative results associated with the community surveys should be provided and included within the 2017 Annual Report to the NIRB.	<p>Baffinland has addressed this recommendation by providing the following response. The 2016 North Baffin community survey conducted by Baffinland revealed 57% of survey respondents felt the Project provided positive change for their community, 8% felt the Project resulted in negative change, and 35% said they saw no change as a result of the Project. Positive changes noted by respondents included new jobs for local Inuit and youth, income and work-related benefits for families and communities, and new skills development opportunities for local residents. Negative changes included the long separation between families and employees affecting family stability, the ongoing problem of substance abuse in communities, the need for communication improvements between Baffinland and communities, the need for environmental protection of the area, and that not enough Inuit are being hired at the Project. Survey respondents also talked about the need for continued focus on worker safety and equitable community support. Baffinland continues to address these concerns through various means, such as:</p> <ul style="list-style-type: none"><li>Maintaining a relatively short (2 week in/2 week out) employment rotation and a commitment to consider adopting alternative rotation schedules that are better aligned with familial and community activities (e.g. a 7 days in/7 days out pilot project is currently underway).</li><li>Providing permanent employees and their dependents with access to an Employee and Family Assistance Program.</li><li>Providing employees with access to various on-site communications technologies (i.e. phone, internet) so they may regularly communicate with their families.</li></ul>	N/A

NIRB Recomm. No.	Description	Baffinland Response	2017 Socio-Economic Monitoring Report Reference (If Applicable)
		<ul style="list-style-type: none"> <li>Maintaining a drug and alcohol-free work environment.</li> <li>Ongoing engagement with North Baffin LSA communities to discuss Project activities (e.g. through public and stakeholder meetings); documentation and tracking of feedback through Baffinland’s StakeTracker database.</li> <li>Ongoing implementation of Baffinland’s Inuit Human Resources Strategy, Inuit Procurement and Contracting Strategy, and the Q-STEP training program in partnership with the QIA.</li> <li>Maintaining a health and safety culture at Project sites, built on Baffinland’s ‘Safety First, Always’ philosophy.</li> <li>Commitment to provide pre-employment and other training opportunities to employees (e.g. Project and/or job-specific, financial management, literacy and numeracy)</li> <li>Ongoing implementation of the Mary River Project IIBA, to ensure community benefits are being delivered by the Project.</li> <li>Annual monitoring of various environmental and socio-economic indicators, to ensure adverse effects are being avoided and positive effects are being delivered.</li> </ul> <p>A draft response to NIRB recommendation no. 25 was provided to the SEMWG on February 8, 2018 and a teleconference to discuss it was held on February 14, 2018. No major concerns on this response were raised by SEMWG members although some suggestions were made and have been incorporated into a final response.</p>	
26	The Board requests that Baffinland follow the recommendation of the Government of Nunavut to address the increase in Inuit turnover rates at the Project by exploring the feasibility of using the Ilagiiktunut Nunalinnullu Pivalliajutisait Kiinaujat fund to provide additional supports to community daycares or child care services over and above what is available through the Government of Nunavut’s Start-up contribution program. It is requested that updates with respect to providing additional supports to community daycares or child care services for employees or through Ilagiiktunut Nunalinnullu Pivalliajutisait Kiinaujat fund be included within the 2017 Annual Report to the Nunavut Impact Review Board.	<p>Baffinland has addressed this recommendation by providing the following response. Baffinland supports two funds established under the IIBA which could potentially be accessed to provide additional supports to community daycares or child care services in the LSA. While Baffinland makes significant financial contributions to these funds, <i>they are administered solely and exclusively by the QIA</i>. It is possible these funds could be used to provide additional supports over and above what is available through the Government of Nunavut’s start-up contribution program; however, all decision-making on this matter rests with the QIA. The funds include:</p> <ol style="list-style-type: none"> <li><b>Ilagiiktunut Nunalinnullu Pivalliajutisait Kiinaujat (INPK) Fund</b> <ul style="list-style-type: none"> <li>Fund provides up to \$750,000/year for projects in the Qikiqtaaluk Region which enhance community wellness (equal annual contributions of \$375,000 by QIA and Baffinland).</li> <li>Fund objectives include the creation of opportunities for community capacity building, the fair distribution of impacts and benefits between communities and across generations, maintenance of consistency with community development objectives, and promotion of mutual understanding and learning.</li> <li>Application details can be found at: <a href="http://qia.ca/programs/ilagiiktunut-fund/">http://qia.ca/programs/ilagiiktunut-fund/</a></li> </ul> </li> <li><b>Business Capacity and Start-Up Fund</b> <ul style="list-style-type: none"> <li>Fund provides up to \$250,000/year to Designated Baffin Inuit Firms (solely funded by Baffinland).</li> <li>Fund helps with start-up capital and financing, management development, ongoing business management, financial management, contracts and procurement or human resources management.</li> <li>Application details can be found at: <a href="http://qia.ca/programs/business-capacity-start-up-fund/">http://qia.ca/programs/business-capacity-start-up-fund/</a></li> </ul> </li> </ol> <p>A draft response to NIRB recommendation no. 26 was provided to the SEMWG on February 8, 2018 and a teleconference to discuss it was held on February 14, 2018. No major concerns on this response were raised by SEMWG members.</p>	N/A
27	The Board requests that Baffinland consider working with appropriate stakeholders to develop a measurement tool/indicator for food security and provide information on the impact of the Project on food security, including access to hunting grounds. It is requested that this update be included within the 2017 Annual Report to the Nunavut Impact Review Board.	<p>Baffinland has addressed this recommendation in several ways and does not believe additional monitoring and/or indicators are necessary. Foremost, Baffinland already monitors several topics relevant to food security:</p> <ul style="list-style-type: none"> <li>Proportion of taxfilers with employment income and median employment income (obtained from the Nunavut Bureau of Statistics)</li> <li>Percentage of population receiving social assistance (obtained from the Nunavut Bureau of Statistics)</li> <li>Employee payroll expenditures (Baffinland data)</li> <li>Number of recorded land use visitor person-days at Project sites (Baffinland data)</li> <li>Number of wildlife compensation fund claims (obtained from QIA)</li> <li>On-site employee harvesting activities (obtained from an annual survey of Inuit employees and contractors at Project sites).</li> <li>Territorial harvesting statistics (obtained from Statistics Canada, from the 2012 Aboriginal Peoples Survey)</li> <li>Territorial food security statistics (obtained from Statistics Canada, from the 2012 Aboriginal Peoples Survey)</li> </ul> <p>Section 10.1 (Project Harvesting Interactions and Food Security) of the socio-economic monitoring report discusses all of these topics. However, Baffinland acknowledges additional community-level indicator data are currently unavailable for the topic of food security; as such, this topic also continues to be tracked through the QSEMC process and Baffinland’s community engagement program. Furthermore, the 2017 report now includes a table describing Baffinland’s role in each of the four food security components identified by the Nunavut Food Security Coalition (2014). Taken together, this provides a comprehensive overview of Project-related food security trends in the North Baffin LSA and no additional monitoring is anticipated at this time. However, Baffinland will continue consulting with the SEMWG on potential improvements to all aspects of the Project’s monitoring program. A draft response to NIRB recommendation no. 27 was provided to the SEMWG on February 8, 2018 and a teleconference to discuss it was held on February 14, 2018. No major concerns on this response were raised by SEMWG members.</p>	Section 10.1
28	The Board requests that Baffinland engage with the Government of Nunavut to discuss possible Project implications on existing health and social services, including strategies for tracking health and social service requests. The	<p>Baffinland has addressed this recommendation in several ways. Foremost, Baffinland already monitors health and social service-related topics through various indicators:</p> <ul style="list-style-type: none"> <li>Percent of health centre visits related to infectious diseases (obtained from the Nunavut Bureau of Statistics)</li> </ul>	Section 7.2 Section 7.9

NIRB Recomm. No.	Description	Baffinland Response	2017 Socio-Economic Monitoring Report Reference (If Applicable)
	Proponent should also consider providing information regarding outbreak investigations of communicable diseases, medical assessment or return to work as a requirement of insurance or workplace policies, and treatment of workplace injuries upon returning to the community. It is requested that an update on this engagement and related outcomes be included within the 2017 Annual Report to the Nunavut Impact Review Board.	<ul style="list-style-type: none"><li>• Number of health centre visits, total and per capita (obtained from the Nunavut Bureau of Statistics)</li><li>• Number of visits to Project site medic (Baffinland data)</li><li>• Percentage of the population receiving social assistance (obtained from the Nunavut Bureau of Statistics)</li></ul> Monitoring results provide a relevant overview of health and social service-related trends in the LSA. Furthermore, Baffinland remains in regular contact with the Government of Nunavut on health matters related to the Project. Baffinland will also continue consulting with the SEMWG on potential improvements to the Project’s monitoring program. Most recently, health-related monitoring was discussed during the September 2017 territorial socio-economic monitoring workshop held by the Government of Nunavut in Iqaluit. As a result, draft recommendations for monitoring this topic have now been provided by the Government of Nunavut (2017) and include the indicators ‘number of lost time incidents’, and ‘number of times GN emergency health services required’. Baffinland continues to investigate the possibility of aligning its monitoring program with these recommendations where appropriate. A draft response to NIRB recommendation no. 28 was provided to the SEMWG on February 8, 2018 and a teleconference to discuss it was held on February 14, 2018. No major concerns on this response were raised by SEMWG members.	Section 8.3



## **APPENDIX E: 2018 INUIT EMPLOYEE SURVEY**

# Mary River Project Annual Survey - Inuit Employee

## Overview:

**\*\*Please note your participation in this survey is completely voluntary and no negative consequences will result to those who decide not to participate\*\***

This survey is conducted by Baffinland and the Qikiqtani Inuit Association (QIA) on an annual basis to collect information about the employees of the Mary River Project and their opinions on several topics. More specifically, this survey is conducted because:

- Baffinland is required to report on employment, education, and housing information pertaining to Project employees under the terms of its Project Certificate issued by the Nunavut Impact Review Board (NIRB).
- Baffinland is required to report on workplace conditions under the terms of its Inuit Impact and Benefit Agreement (IIBA) with the QIA.

Your thoughts and opinions are important and will be used to improve Baffinland's understanding of Inuit employment and workplace conditions at the Project (including for female employees) such as leisure activities, cross-cultural training programs, and access to counselling services and cultural activities.

You may choose to complete this survey on your own or with the assistance of Baffinland or QIA staff. You can also complete this survey in either English or Inuktitut. If you choose to complete this survey, your responses will remain confidential and your name will not be used. However, the information you provide may be used by Baffinland and QIA publicly (e.g. for reporting purposes). If you have any questions you can contact the Mary River Human Resources Office.

There are two types of questions included in the survey: 1) closed-ended, and 2) open-ended. The closed-ended questions provide a list of answer options that you can choose from. Please mark the appropriate box next to your answer choice with an 'X'. Open-ended questions do not have pre-defined answers. Please provide as many comments as you like in the answer box for the open-ended questions. If you require more space for your answers to the open-ended questions, please feel free to attach additional pages to the survey. You may also skip any questions that you do not want to answer.

Thank you for your participation.

## General

1. Gender:

- ☐ Male      ☐ Female

2. a) Are you:

- ☐ Inuit      ☐ Non-Inuit

b) If you are Inuit, are you enrolled under the Nunavut Agreement?

- ☐ Yes      ☐ No

c) If you are Inuit, is Inuktitut your first language?

- ☐ Yes      ☐ No

3. Please indicate your age:

- ☐ Under 30 years old
- ☐ 30 to 39 years old
- ☐ 40 to 49 years old
- ☐ 50 to 59 years old
- ☐ Over 60 years old

4. Who do you work for?

- ☐ Baffinland
- ☐ Contractor (Please identify): \_\_\_\_\_

5. How long have you worked for your current employer (Baffinland or contractor)?

- ☐ Less than 1 year
- ☐ At least 1 year, but less than 2 years
- ☐ At least 2 years, but less than 3 years
- ☐ 3+ years

6. Which department do you work in?

## Housing

7. What is your current community of residence?

- ☐ Arctic Bay
- ☐ Clyde River
- ☐ Hall Beach
- ☐ Igloolik
- ☐ Pond Inlet
- ☐ Iqaluit
- ☐ Other: \_\_\_\_\_

8. What type of housing do you currently live in?

- ☐ Privately owned – Owned by you
- ☐ Privately owned – Owned by another individual
- ☐ Renting from a private company
- ☐ Public housing
- ☐ Government of Nunavut staff housing
- ☐ Other staff housing
- ☐ Other: \_\_\_\_\_

9. a) Has your housing situation changed in the past 12 months?

☐ Yes ☐ No

b) If yes, please explain (e.g. Have you moved? Has the type of housing you live in changed?).

10. a) Have you moved to a different community in the past 12 months?

☐ Yes ☐ No

b) If yes, which community did you move from?

11. a) Do you intend to move to a different community in the next 12 months?

☐ Yes ☐ No

b) If yes, which community do you intend to move to?

## Education and Work Experience

12. What is the highest education level you have obtained? (Check only one box)

*No certificate, diploma, or degree*

☐ No certificate, diploma or degree

*High school diploma or equivalent*

☐ High school diploma or equivalent

*Postsecondary certificate, diploma, or degree*

☐ Apprenticeship or trades certificate or diploma

☐ College, CEGEP or other non-university certificate or diploma

☐ University certificate or diploma below bachelor level

☐ University certificate, diploma or degree - Bachelor's degree

☐ University certificate, diploma or degree above bachelor level

13. a) Were you enrolled in an academic or vocational program at the time of your hire at the Mary River Project?

☐ Yes ☐ No

b) If yes, what program were you enrolled in and where were you enrolled?

c) If yes, did you suspend or discontinue your education because you were hired to work at the Mary River Project?

☐ Yes      ☐ No

14. a) Did you resign from a previous job in order to take up employment with the Mary River Project?

☐ Yes      ☐ No

b) If yes, what was your previous employment status? (Check only one box)

☐ Casual      ☐ Part-Time      ☐ Full-Time

c) If yes, what was your previous job title?

d) If yes, who was your previous employer?

### Cross-Cultural Orientation

15. Baffinland provides a cross-cultural orientation program to increase non-Inuit employees' knowledge and respect for Inuit employees and culture. How would you rate the effectiveness of this program?

- ☐ Excellent  
☐ Very good  
☐ Good  
☐ Fair  
☐ Poor  
☐ I didn't participate in a cross-cultural orientation program

16. Do you have any suggestions for improving Baffinland's cross-cultural orientation program?

## Workplace Orientation Program

17. Baffinland provides a workplace orientation program to help new Project employees learn about the company's expectations of them. How would you rate the effectiveness of this program?

- ☐ Excellent
- ☐ Very good
- ☐ Good
- ☐ Fair
- ☐ Poor
- ☐ I didn't participate in a workplace orientation program

18. Do you have any suggestions for improving Baffinland's workplace orientation program?

## Inuktitut in the Workplace

19. Do you feel comfortable speaking Inuktitut on site?

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never
- ☐ I'm not an Inuktitut speaker

20. How often is Inuktitut spoken during work hours by Inuit employees on site?

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

21. Is Inuktitut used for work-related documents on site?

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

22. Is Inuktitut media (e.g. newspapers, publications, broadcasts, other resources) not related to work available on site?

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

23. Do you have any suggestions for improving Inuktitut usage on site?

### Supporting Our Workforce

24. Do you feel supported by supervisors and managers while working at the Mary River Project?

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

25. Do you feel supported by on-site elders while working at the Mary River Project?

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

26. Do you feel comfortable working at the Mary River Project?

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

27. Is respect shown for Inuit and Inuit culture at the Mary River Project?

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

28. How would you rate the employee accommodations and living facilities at the Mary River Project?

- ☐ Excellent
- ☐ Very good
- ☐ Good
- ☐ Fair
- ☐ Poor

29. Do you have any suggestions for improving Inuit employee working and/or living conditions at the Mary River Project?

### Counselling and Support Services

30. Do you know how to access the counselling and support services available to Project employees?

- ☐ Yes
- ☐ No

31. How would you rate the counselling and support services available to Project employees?

- ☐ Excellent
- ☐ Very good
- ☐ Good
- ☐ Fair
- ☐ Poor

32. Do you have any suggestions for improving Baffinland's counselling and support services?

### Country Food

33. How often is country food available on the menu at the dining hall?

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never



34. How often do you use the country food kitchen?

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never
- ☐ I didn't know there was a country food kitchen

35. How would you rate the quality of the country food kitchen (e.g. Is it a useful space? Is it easily accessible? Is there adequate storage space)?

- ☐ Excellent
- ☐ Very good
- ☐ Good
- ☐ Fair
- ☐ Poor
- ☐ I've never been to the country food kitchen

36. Do you have any suggestions for improving country food availability on site?

### Leisure Time and Traditional Activities

37. How would you rate the leisure time activities that are available on site?

- ☐ Excellent
- ☐ Very good
- ☐ Good
- ☐ Fair
- ☐ Poor

38. Which leisure facilities do you use most regularly on site? (Check up to 3 boxes)

- ☐ Fitness room
- ☐ TV room
- ☐ Music room
- ☐ Computer room
- ☐ Country food kitchen
- ☐ Outdoors/outdoors activities
- ☐ Other (please describe): \_\_\_\_\_

39. How often do you go outdoors for your leisure time activities while on site? (Not including smoking)

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

40. a) Do you participate in traditional activities (e.g. hunting, fishing, harvesting) during your leisure time on site?

- ☐ Yes
- ☐ No
- ☐ I didn't know I could participate in traditional activities during my leisure time on site

b) If yes, how often do you hunt, fish, or harvest during your leisure time on site?

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

41. Do you have any suggestions for improving leisure time and/or traditional activities on site?

## Communications

42. How would you rate your ability to communicate with your family while you are on site?

- ☐ Excellent
- ☐ Very good
- ☐ Good
- ☐ Fair
- ☐ Poor

43. Do you have any suggestions for improving communications between workers and their families while on site?

***Thank you for your participation!***

***Please return this survey to Baffinland or QIA survey staff  
or  
the Mary River Human Resources Office***