PRELIMINARY COMMUNITY SUSTAINABILITY ASSESSMENT REPORT

TOWN OF BAIE VERTE

<u>**PARTNERS:**</u>

Mitacs Accelerate Program

Rambler Metals and Mining Ltd

Anaconda Mining Inc

Guy J. Bailey Ltd

<u>**PREPARED BY:**</u>

Rashidatu Mohammed Uthman

Masters of Environmental Policy Candidate

Grenfell Campus, Memorial University

<u>**SUPERVISED BY:**</u>

Dr. Kelly Vodden

Dr. John Dagevos

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Table of Contents

1.0 Project Background and Objectives

Mining which began in 1864 in Newfoundland has historically contributed to and impacted the sustainability of communities- notable among which is the Town of Baie Verte. The Town of Baie Verte which is located on the Baie Verte Peninsula on the Northeast coast of NL flourished as a mining town in the mid 1950's after the discovery of asbestos and other ore bodies of copper, lead, zinc and gold in the area[1]. Mining has ever since then played a significant role in the sustainability of the town. At present, Baie Verte is host to two active mining operations- gold mining by Anaconda Mining Inc, gold-copper mining by Rambler Metals and Mining; and some mining industry quarry support services by Guy J. Bailey Ltd.

The mining industry which happens to be key to the economic development of the Town of Baie Verte is believed to be making significant contributions to the sustainability of the town. In the light of this, this research project under the sponsorship of Mitacs Accelerate Program, Anaconda Mining Inc, Rambler Metals and Mining Ltd, Guy J. Bailey Ltd, and in collaboration with the Town of Baie Verte aimed at achieving the following objectives:

- o Obtain a better understanding of the sustainability vision and goals of Baie Verte.
- o Assess the state of sustainability in Baie Verte using a sustainability measurement and assessment indicator – Telos Framework
- o Recommend some action plans that can help enhance community sustainability in Baie Verte.

The research will be conducted under two project phases based on the below workplan and timeline.

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[1] Baie Verte Economic Action Plan, 2010

Table 1.0: Project Workplan & Timeline

PHASE	GOAL	ACTION ITEM
Phase 1 (6wks) Nov. 2018 to Dec.2018	Define Baie Verte's sustainability vision and goals	Meet with key players to discuss key internship issues (such as administering community survey)
		Gather and begin to review key documents
		Gather and review basic sustainability profile data
		Draft survey and discuss with municipality
		Finalize survey
		Prepare preliminary assessment report based on document review & community sustainabilty profile data
		Distribute survey to citizens
		Visit community groups & encourage participation in public survey
Phase 2 (6wks) Jun.2019 to Jul.2019	Make sustainability policy recommendations, and specify action plan	Analyze survey results. Complete overall ccommunity sustainabilty assessment
		Consult with key players on action for results. Prioritize for action planning
		Develop recommendations & action plan

This report is a preliminary assessment (phase 1) of the state of sustainability in Baie Verte. The remaining sections thus focus on the research methodology, the findings and results obtained from the phase one of the project.

2.0 Research Methodology

The phase one of the research project relied on the review of three main community documents namely: The Baie Verte Economic Action Plan (2010); The Baie Verte Integrated Community Sustainability Plan (ICSP) (2010); and The Baie Verte Peninsula Thriving Regions Report (2018). The review of these community documents gave a sense of the sustainability vision and goals of the Town of Baie Verte, paving way for the adoption of a sustainability measurement and assessment indicator- Telos Framework later in the study. The document

review resulted in the identification of the below as the most important components of community sustainability for the Town of Baie Verte.

Table 2.0: Key Components of Community Sustainability for the Town of Baie Verte

Ecological Capital	Economic Capital	Socio-Cultural Capital
Water Quality, Use & Infrastructure	Labour Market	Population & Demography
Air Quailty	Economic Structure	Health & Well-being
Ecosytems	Knowledge Infrastructure	Housing & Living Conditions
Land Use	Physical Infrastructure	Education
Waste Materials		Sense of Place & Cultural Identity
		Participation & Governance

Source: Deduced from Community Documents

A coding system as per table 3.0 below was later used in a sustainability assessment summary chart as per appendixes A, B, and C attached to give an overview of the status/performance of the various stocks as per the research findings.

Table 3.0: Sustainability Assessment Colour Coding System

Coding	Status
	Moderate to Poor - Immediate actions are needed to enable the sustainability of the stock
	Moderate - Certain elements of the stock requires action or improvement
	Good - No immediate action required
	No Data - Further research required

Source: Adopted from the Telos Framework

3.0 The Telos Framework

The Telos Framework is a community capital-based sustainability assessment model developed by the Brabant Centre for Sustainable Development in the Netherlands as a sustainability monitoring and assessment tool used at both local and regional levels. The Telos framework is based on the 'Telos Triangle', which comprises of three forms of community capitals namely – ecological capital, socio-cultural capital, and economic capital[2]. According to the Telos Framework, sustainable development is only defined in terms of a balanced increase in quantity and quality of these three forms of capitals[3]. The Telos Framework was adopted in this study because, it has successfully been used to conduct sustainability assessments in the NL context, thus in Corner Brook in 2018, and in the Clarenville-Bonavista-Isthmus region in 2017[4]. Another reason for the choice of the Telos Framework is that, one of the research supervisors of this project is well vested in the application of the framework as he was involved in its development.

As per the Telos Framework, a Sustainability Balance Sheet (SBS)[5] was developed for Baie Verte (available in a separate excel sheet) as a tool to aid in the sustainability data collection and assessment process. In applying the SBS, goals were assigned to the identified stocks or components of sustainability in the case of Baie Verte (see table 2.0). The goals were derived from the reviewed community documents. Assessment indicators were then theoretically selected and assigned to the goals as a way of gauging the attainment of the goals. This process involved the comparison of Baie Verte's sustainability performance with that of three other 'peer communities' namely: Buchans; St. Lawrence; and Wabush. These three towns were selected because they are also mining towns with almost the same population size as the Town of Baie Verte.

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[2]Telos Brabant Centre for Sustainable Development, 2017. *Mission (English)* [online]. Available from: http://www.telos.nl/english/default.aspx [Accessed 2 October 2018].

[3] Knippenberg, L., Haarmann, W., Hermans, F.L.P., Beckers, T.A.M., Dagevos, J., and Overeem, I., 2007. Developing tools for the assessment of sustainable development in the province of Brabant, the Netherlands. In: T. Hak, B. Moldan and D.A. Lyon, eds. *Sustainability indicators: a scientific assessment*. Washington, DC: Island Press, 309-328.

[4] Lowery, B. and Vodden, K. (2017). Community Report: Sustainability Report Card and Public Engagement Project, Clarenville-Bonavista-Isthmus Region.

[5] Knippenberg, L., Haarmann, W., Hermans, F.L.P., Beckers, T.A.M., Dagevos, J., and Overeem, I., 2007. Developing tools for the assessment of sustainable development in the province of Brabant, the Netherlands. In: T. Hak, B. Moldan and D.A. Lyon, eds. *Sustainability indicators: a scientific assessment*. Washington, DC: Island Press, 309-328.

4.0 Data Collection and Analysis

  a. Statistical Data

In applying the Telos framework, sustainability profile data relevant to the defined assessment indicators were collected for the various stocks of the three capitals (economic, socio-cultural, and ecological) for Baie Verte (see Table 2.0). The data were collected from several sources, including but not limited to Community Accounts, Statistics Canada, Vital Signs, municipal and provincial government reports, government websites, municipal documents, academic reports, news articles, etc. To allow for comparison and a better understanding of Baie Verte's situation, the same kind of data was also collected for three other peer communities, and provincial averages. Buchans and St. Lawrence were selected as two peer communities from the island of Newfoundland because they are also mining towns like Baie Verte. The additional data sets of the peer communities and the provincial averages, together with relevant data on national averages where applicable, were used to define the norms or standards by which the performance of Baie Verte has been assessed In assessing the state of sustainability in Baie Verte, a colour coding system (see table 4.3 below) was used.

  b. Survey Data

In order to help fill identified data gaps and to obtain additional sustainability data, a resident survey on community sustianbaility was conducted in the Town of Baie Verte between November 2018 to January 2019. The survey questionnaire was drafted based on the identified sustainability goals and their assigned assessment indicators and shared with the Baie Verte municipality for approval before being administered. A mix of both online and offline approaches were used for administering the survey. The online approach entailed developing the survey questionnaire on survey monkey and sharing the link with citizens through social media ads on the town's facebook page and website, and through poster ads sticked around strategic town locations including: the post office; grocery store; hospital; college; stadium; convenience stores; gas stations; restaurants; etc. The offline approach on the other hand entailed distributing paper copies of survey to various community groups including: churches; volunteer groups; company staffs; etc.

The survey results will be analyzed and presented in the final report in the second phase of the research project.

5.0 Results and Findings

The remaining sections of this report are discussions of preliminary findings and results pertaining to the state of sustainability in Baie Verte as deduced from the designed Sustainability Balance Sheet (SBS). For the most part the preliminary findings and results were based on a comparative analysis of the Town of Baie Verte and the selected peer communities (Buchans, Wabush, St. Lawrence) as well as provincial averages. However, due to the unavailability of comparable data for the peer communities and provincial averages in some cases, the comparative analysis could not be done on some stocks especially for ecological capital. Even in the single case of Baie Verte, data was not available for a better analysis to be done on some stocks like: waste materials; ecosystems; air quality; and participation and governance. The survey results will hopefully help fill some of these identified data gaps in the second phase of this project.

5.1 Ecological Capital

Five stocks were identified as important to sustainability in the Town of Baie Verte under the ecological capital namely: water quality, use, and infrastructure; air quality; ecosystems; land use, and waste materials. The state of these stocks as deduced from the SBS are discussed below.

a. Water Quality, Use, and Infrastructure: The source of drinking water for the Town of Baie Verte is the Southern Arm pond located 4 miles from the town. A water treatment facility made up of a chlorination and filtration system is used for the treatment of drinking water prior to distribution to the town[6]. Even though some sections of the town have had some drinking water advisories in the last five years, no clear rating data on drinking water quality is currently available on the provincial water resources portal for the Town of Baie Verte. According to the NL Water Resources Portal, Trihalomethanes or THM concentration (a toxic by-product from water treatment linked to the development of cancer in humans) in drinking water in Baie Verte was an average of 121.3 microgram/litre (µg/L) in 2017 and 105.6 µg/L year in 2018. The THM

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[6] Baie Verte Economic Action Plan, 2010

concentration in drinking water in Baie Verte even though same as that of St. Lawrence, was higher than that of Buchans (average 80.35 µg/L) and Wabush (average 85.7 µg/L) in the same period, and the maximum acceptable concentration (MAC) of 100 µg/L[7].

In terms of water lost, large volumes of treated drinking water in Baie Verte are lost to damaged or leaking pipes. No data is readily available on the exact quantity of water lost. The town is, however, currently accepting proposals from contractors for the replacement of old pipelines and for the detection and repair of leaks[8].

In terms of wastewater treatment, the town of Baie Verte lacks a sewage treatment facility. The town t has a total of four sewage outfalls. The combined average volume of suspended solids disposed into the bay from two of the outfalls (Butlers Brook and Southshore Drive) in 2018, was an average of 39.25 metres per litre (m/l). This is above the acceptable standard of 25m/l. The volume of Carbonaceous Biochemical Oxygen Demand or CBOD (a determinant of toxic pollutants) in the sewage outfall for 2018 was 47.25 m/l, also above the acceptable standard of 25 m/l. This is likely to improve soon as the town has obtained some funding to set up a sewage treatment plant. Works on that will commence by the spring of 2019[9].

b. Air Quality: No data was readily available on the greenhouse gas emissions for the Town of Baie Verte. The town's historical air quality index ranged between points 2-3, making it a very low health risk area[10] despite the presence of the mines.

c. Ecosystems: Preservation of the terrestrial and aquatic ecosystem as well as biodiversity were identified as key to the ecological sustainability of Baie Verte. The town has an appreciable 67.5 km^2 of forest reserve or protected area and approximately 0.035 km^2 of marine conservation area[11]. Adequate data is unavailable for a complete analysis of this stock with the other peer communities.

d. Land Use: As per the reviewed community documents, agricultural production, recreational developments, business development, and residential developments were outlined as the main

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[7] NL Water Resources Portal, 2018
[8] Baie Verte ICSP, 2010
[9] Town of Baie Verte (2018)
[10] Environment Canada
[11] Baie Verte Land Use Zoning Map, NL Municipal Affairs and Environment

priorities for land use in the Town of Baie Verte. The town's municipal plan depicts allocations of sizeable portions of land for developments in these key areas. With about 3% of its labour force employed in the agriculture and related sector[12] the town has a total land area of about 1.61 km^2 allocated for agricultural developments. A total land area of about 0.62 km^2 has also been allocated for business development to support the 20% workforce employed in the business sector[13]. Land areas of about 2.25 km^2 and 0.46 km^2 have also been allocated for residential and recreational developments respectively[13].

e. Waste Materials: Data was not readily available with regard to the exact amount of waste generated by the town of Baie Verte. The town has a once per week garbage collection system and a recycling program operated by a volunteer managed Green Depot. Even though a lot of organic waste is generated by the town, no composting program is currently in place. The town has, however, applied for government funding for p a joint community compost and community garden program (Personal Communication, Town Clerk, December 2018).

5.2 Economic Capital

Four stocks were identified as important to sustainability in the Town of Baie Verte under economic capital namely: labour market; economic structure; knowledge infrastructure, and physical infrastructure. The state of these stocks as deduced from the SBS are discussed below.

a. Labour Market: According to Community Accounts, in 2016 the employment rate[14] in Baie Verte for the population of 15 years and older was 44.6%. This was below the provincial average of 49.5% (10.7% below the national average) and Wabush's 64.2%, but above Buchans' and St. Lawrence's 23.6% and 43.4% respectively (Community Accounts, 2016; Statistics Canada, 2016). The unemployment rate for Baie Verte was 18.3% for the same year. This was above the high NL provincial average of 15.6% (8.7% above the national average) and Wabush's 11.3%; even though below Buchans and St. Lawrence's 27.5% and 19.6% respectively (Community Accounts, 2016;

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[12] [12] [13] Baie Verte Land Use Zoning Map, NL Municipal Affairs and Environment

[14] Employment Rate is a statistical ratio that measures the proportion of a community's working age population that is employed (Community Accounts, 2016).

Statistics Canada, 2016). Again, in 2016, for the population of 15 years and older, Baie Verte had a moderate labour force participation rate[15] of 55.7% compared to the 58.7% provincial average (7.1% below the national average) and Wabush's high of 72.2% (Community Accounts, 2016; Statistics Canada, 2016). Baie Verte had a good self-reliance ratio[16] of 79.6% compared to the 72.1% for St. Lawrence and 64.3% for Buchans and was similar to the 80.6% provincial average (Community Accounts, 2016).

b. Economic Structure: Baie Verte has a great development potential in the mining industry, the forestry industry, the fishing industry, the manufacturing industry, the business, sales, and service industry, as well as the recreation and tourism industry. About 16% of the town's labour force 15 years and older were employed in the mining and related industry as at 2016. Baie Verte, thus, recorded an industrial employment rate significantly higher than the provincial average of 4% but below that of Wabush in the same year by about 8%[17]. For both the manufacturing related industry and business-related industry the employment rate in Baie Verte for 2016 was 6% and 20% respectively. This was almost the same as that of the other three communities (Wabush, St. Lawrence, Buchans) and the provincial average. With regard to recreation and tourism, considering the number of tourist attractions and heritage sites available in Baie Verte, the town does not seem to be utilizing its full tourism potentials. This is especially evident as the town has only 6% of its labour force involved in the recreation and tourism industry. This, nonetheless, seems to be a province-wide trend as NL records a low of 8% of its total workforce employed in the recreation and tourism industry on average[18].

c. knowledge Infrastructure: With regard to the percentage of the population who have certificates or diplomas, or pursuing programs relevant to the predominant industry (mining, forestry, business, tourism), the performance of Baie Verte even though below that of Wabush,

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[15] Labour Force Participation Rate measures an economy's active labor force and is the sum of all employed workers divided by the working age population. Retrieved from https://www.investopedia.com/terms/p/participationrate.asp.

[16] Self-Reliance Ratio is a measure of the community's dependency on government transfers such as: Canada Pension, Old Age Security, Employment Insurance, Income Support Assistance, etc. (Community Accounts, 2016).

[17] [18] Statistics Canada- 2016 Census Profile Baie Verte

was for the most part above the provincial average as per the 2016 population census. 27.8% of Baie Verte residents 15 years and older had a certificate or diploma in apprenticeship and trade, 18% were enrolled in architecture and engineering related programs, and 10% in business and management related programs. Recreation and tourism related programs, however, unsurprisingly had a low 1% enrolment. This was at par with that of Buchans and Wabush, but below St. Lawrence's fairly high rate of 6%.

d.physical Infrastructure: Under physical infrastructure, town beautification, transportation infrastructure, and communication infrastructure were the key areas highlighted in the reviewed community documents. Baie Verte has a good number of recreational facilities such as a ski hill, snowmobile trails, walking trails, a sporting arena, an outdoor swimming pool, etc., that add to its beautification (Baie Verte ICSP, 2010). For transportation infrastructure, the Town of Baie Verte has approximately 16km of paved street and 1km of sidewalk[19]. The streets which happen to have been constructed in the 1970s by the old asbestos mines have not experienced any replacements or major maintenance other than few patches and re-pavements which are done on rotational basis between 5-10 years[20]. There is no public transport in Baie Verte, as most residents either have their own means of transportation or rely on family and friends to move around[21]. There is, however, a privately-owned taxi that operates within the town and its environs on call basis. There is also a shuttle service owned by Guy J. Bailey Ltd that travels from the town to Deer Lake, Corner Brook, and surrounding areas on a daily basis.

The Town of Baie Verte seems to have a fairly good communication network and infrastructure including telephone and cellphone service; internet service; and cable/TV service compared to other surrounding communities.

5.3 Socio-Cultural Capital

Six stocks were identified as important to sustainability in the Town of Baie Verte under socio-cultural capital namely; populations & demography, health & well-being, housing and living

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[19] Baie Verte ICSP, 2010
[20] Data obtained from Baie Verte Town office staff
[21] Baie Verte Peninsula Community Health Assessment

conditions, education, sense of place & cultural Identity, and participation & governance. The state of these stocks as deduced from the SBS are discussed below.

a. Populations & Demography: As per the 2016 census, the population of Baie Verte was 1,295, recording a decline of 7.8% from the 2011 population census. Considering the town's 371.09km^2 land area, the population density of the town is estimated at about 3.5 persons per square kilometer[22].With a median age of 48 years, 59.5% of the town's population is 54 years and younger, and 40.5 % is 55 years and older. Comparing Baie Verte with another active mining town like Wabush in Labrador which has a median age of 36 years and 81.3% of its population younger than 54 years, Baie Verte can be said to have a rather aging population which is quite untypical of mining towns. Coupled with the aging nature of Baie Verte's population, its in-migration rate has also been low with only 10 immigrants (between the active age group of 15-44 years) moving to the town between 2011 and 2016, as opposed to the considerably higher 55 immigrants of the same age group who moved to Wabush within the same period[23].

b. Health & Well-being: The overall performance of Baie Verte in terms of the health and well-being of its population is fairly good. About 64.9% of residents aged 12years and older living in the economic zone where Baie Verte belonged rated their health status as excellent or very good between 2015-2016[24], this figure even though above that of St. Lawrence, Buchans, and the provincial average, is below the 81.6% recorded for Wabush in the same period. Between 2004-2016, Baie Verte recorded a median death age of 79 years like the other peer communities. However, the rate of hospital morbidity attributed to chronic diseases in the rural secretariat region where Baie Verte belonged remained at 6% over a 3-year period (2012-2015) whereas that of the other communities increased by 2-4% over the same period[25], implying an improvement in the health and well-being of residents in Baie Verte between 2012-2015.

c. Housing and Living Conditions: Among the three peer communities, Baie Verte has one of the lowest housing cost for both homeowners and renters. As per the 2011 National Household Survey, only 3.6% of owner households spent more than 30% of their household income on

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[20, 21, 22] Statistics Canada- Focus on Geography Series, 2016 census

[24] [23] Community Accounts (2016)
[24] [25] Baie Verte Economic Action Plan (2010)

shelter as opposed to the provincial average of 10.6%. And about 26.9% of tenant household also spent more than 30% of their household income on shelter as opposed to the provincial average of 39.4%.

The development of housing in Baie Verte over the years has been quite remarkable. This is very evident in the two sectional divison of the town (original or old town site and new town site) based on housing developments[26]. There are about 115 apartments[27] and 545 houses in Baie Verte[28]. Out of the total of 545 houses present in Baie Verte as at 2016, 7.3% of the houses were newly consturcted between 2011-2016, as against the 3.1% in St.Lawrence and 9.5% in Wabush in the same period. With about 2.25km^2 of land allocated for residential development[29], it is anticipated that, more residential housing will spring up in Baie Verte in the near future when more lands are released by the municpality for development.

d. Education: According to Community Accounts, in 2016, 75.7% of Baie Verte residents 15 years and above had at least a high school diploma. This was 4.2% and 12.9% respectively below the peer communities of St. Lawrence and Wabush, and 1% below the provincial average (Community Accounts, 2016). In addition, 10.4% of the residents with a high school diploma have a bachelor's degree or higher. This was between 0.5 % to 3.8% above that of the peer communities, and 4.4% below the provincial average (Community Accounts, 2016). As can be seen from the above, high school completion rate in Baie Verte, even though almost at par with the provincial average was lower than two of the peer communities. Post-secondary completion rate in Baie Verte, on the other hand, was higher than all three peer communities, but lower than the provincial average.

e. Sense of Place & Cultural identity: There is a strong sense of place and cultural identity among the residents of Baie Verte. According to a 2015-2016 Community Account data, 92.3% of people living in Baie Verte had a strong feeling of attachment to their community. This is way above the percentages for Buchans, St. Lawrence, and Wabush. As at 2010, 92.5% of Baie Verte residents

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[26] Baie Verte Economic Action Plan (2010)
[27] [28] [29] Baie Verte Land Use Zoning Map, NL Municipal Affairs and Environment

felt safe in their community and surrounding area, this was 3.1% above the provincial average[30]. However, in terms of the percentage of residents who felt very satisfied with life in general, even though Baie Verte was at par with the provincial average of 88%, it lagged behind Wabush, Buchans, and St. Lawrence.

e. Participation & Governance: Except for the fact that Baie Verte has a municipal government made of six council members, adequate data was not available on governance. In terms of community participation through volunteerism, the Town of Baie Verte has close to forty (40) volunteer groups, with a volunteer representation for almost all community events, programs and age groups[31]. The spirit of volunteerism in the Town of Baie Verte is very high as several key departments and administrative units of the town such as: the Fire Department; the Green (Recycling) Depot; the Recreation Commission and several other town committees are being run by community volunteer groups.

6.0 Conclusion

This phase 1 report of the Baie Verte community sustainability research project aimed at making a preliminary assessment of the state of sustainability in the town of Baie Verte. The assessment was based on reviewed community documents, and statistical profile data obtained from relevant sources (Community Accounts, Statistics Canada, Municipal and Provincial websites, news articles, etc.). The research also carried out some comparative analysis as far as data availability allowed, between the town of Baie Verte and three other peer communities in NL, namely; Buchans, St. Lawrence, and Wabush. A major limitation of the study so far is that, it may not be very reflective of the actual state of community sustainability in Baie Verte at the moment. This is due to two reasons. The first reason is that adequate data was not available to allow for the complete analysis of some stocks. And the second reason is that much of the available data was for the period between 2010-2016 only. This report, thus, has to be viewed with much caution.

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[30] Community Accounts (2010)
[31] Data obtained from Baie Verte Town Office staff

7.0 Way Forward

The phase 2 of this research project is scheduled for June 2019 to July 2019 and will focus on the below objectives:

- Analysis of the public survey on community sustainability conducted in the Town of Baie Verte and incorporation survey findings into the study.

- Completion of an overall community sustainability assessment of the Town of Baie Verte by combining findings from both document review, statistical data gathering and public survey.

- Consultations with key project players (the Town of Baie Verte, Anaconda, Rambler, Guy J. Bailey) to review results and prioritize for action planning.

Appendix A- Summary of Ecological Capital

STOCK	STATUS & TREND	SUMMARY	DATA SOURCES
Water Quality Use and Infrastructure	Moderate to Poor	Drinking water is treated prior to distribution to the town	Baie Verte ICSP (2010), Baie Verte Economic Action Plan (2010) NL Water Resources Portal (2018)
		No rating data exist on the quality of drinking water but sections of the town have had some drinking water advisories in the last 5 years	
		Average THM concentration in drinking water between 2017 and 2018 was slightly above the the maximum acceptable concentration (MAC) of 100 microgram/litre	
		Large volumes of treated drinking water lost to the town's old and failing water infrastructure.	
		Average volume of suspended solids and CBOD in sewage outfalls far above the acceptable 25m/l in 2017 and 2018 due to lack of sewage treatment facility.	
Air Quality	Good	Despite the presence of the mining industry, air quality index ranked between points 2-3 , making Baie Verte a low health risk area	Environment Canada
		No data readily available on greenhouse gas emissions	
Ecosystems Protection	Insufficient Data	No provincial or national park or reserve within town boundaries but a provincial park reserve Flatwater pond is close to the town. About 67.5 km^2 of land area has been demarcated as forest reserves, and approximately 0.035km^2 as marine protected area	Baie Verte Land Use Zoning Map, NL Municipal Affairs and Environment
		Data not available to allow for the assessment of the health of the biodiversity of the ecosystem	
Land Use	Moderate to Poor	Land use mainly for agricultural production, recreational developments, business development, and residential developments	Baie Verte Land Use Zoning Map, NL Municipal Affairs and Environment
		More land has to be released for business and residential developments	
Waste Materials Management	Moderate	No data on amount of waste generated by the town	Baie Verte ICSP (2010)
		Garbbage collection is based on a once per week curbside pick-up	
		Waste Materials Recycling ecouraged through the Town's Green Depot	
		Funding being sort for the development of a community composting program	

Appendix B- Summary of Economic Capital

STOCK	STATUS & TREND	SUMMARY	DATA SOURCES
Labour Market	Moderate	Employment rate for population 15 years and above in 2016 was 44.6%. This was above St. Lawrence and Buchans, but below the provincial average of 49.5%, and 64.2% for Wabush.	Community Accounts, 2016
		Unemployment rate for population 15 years and above in 2016 was 18.3%, above the 15.6% provincial average and Wabush's 11.3% but below the 27.5%, and 19.6% of Buchans and St. Lawrence respectively.	
		The residence self-reliance ratio is fairly good at 80.7% almost at par with the provincial average 82.2% as at 2015	
		Labour force participation rate was a moderate 55.7% compared to the 58.7 % provincial average and 72.2% of Wabush in 2016.	
		Fairly good resident self-reliance ratio of 79.6% in 2016, compared to St. Lawrence's 72.1%, Buchan's 64.3% and the 80.6% provincial average.	
Economic Structure	Moderate to Poor	Economy mainly dependant on the mining industry with about 16% of the labour force between 15years and above employed by the industry as at 2016	Baie Verte Economic Action Plan (2010), Statistics Canada- 2016 Census Profile Baie Verte
		More municpal support is needed for the growth of the mining industry	
		Other industries like: forestry, tourism and recretaion , business, sales & service, and manufacturing also have great growth potentials in the town	
		A good number of recreation and tourism opportunities exist but the recreation and tourism industry is not developed	
		Muncipality must create a condusive environment to allow for the development of the identifed relevant industries	
Knowledge Infrastructure	Moderate	Town endowed with multiple knowledge centers - Copper Ridge Academy, College of North Atlantic, public library	CONA- Baie Verte Campus (2018), Personal Observation (Nov-Dec, 2018)
		Take advantage of the college to enhance the professionalism of workforce by encouraging the teaching and learning of relevant courses and programs	
		Adequate data not available on citizen engagement in programs relevant to the key industries of mining; business, sales, and service; recreation & tourism, and forestry	
Physical Infrastructure	Moderate to Poor	The town has a good number of side attractions (parks, play grounds, walking trails and ski trails, stadium, etc) that enhances its beauty that have to be maintained	Baie Verte Town Office (2018), Personal Observation (Nov-Dec, 2018)
		Most portion of the town's road which dates back to the asbestos mines era of 1970 have to be replaced	
		More sidewalks are also need to ensure pedesterian safety	
		Additional communication networks are needed to offer residence options to choose from	

Appendix C- Summary of Socio-Cultural Capital

STOCK	STATUS & TREND	SUMMARY	DATA SOURCES
Population & Demography	Moderate	Town's population declined by about 7.8% between the 2011 and 2016 population census	Community Accounts (2016), Statistics Canada (2016)
		With a median age of 48 years, Baie Verte has an ageing population with about 59.5% of the town's population being 54 years and younger, and 40.5 % being 55 years and older.	
		Residual Net Migration of -0.22%, against the provincial average of 0.63%, 1.59% for Buchans, -4.00% for Wabush, and -3.25% for St. Lawrence.	
		Population becoming more stable in recent times due to the presence of the mines	
		More efforts are needed from the municipal government to attract more people to the town	
Health & Well-being	Moderate	With a median death age of 80 years, about 64.9% of residents aged 12years and older rated their health status as excellent or very good between 2015-2016, a little above the 62% recorded by St. Lawrence, Buchans, and the provincial average.	Community Accounts (2016)
		Only 14% of residents rated their their life stress as extreme or quite a bit between 2015-2016	
		The rate of hospital morbidity attributed to chronic diseases in the Rural Secretariat Region remained constant (at 6%) over a 3-year period between 2012-2015, while that of all three peer communities increased between 2-4% over the same period.	
		Baie Verte is at par with the provincial average with 88% of residents feeling very satisfied with life in general as at 2010	
Housing & Living Conditions	Moderate	The cost of housing for both homeowners and renters in Baie Verte is quite low	Statistics Canada (2016), National Household Survey (2011)
		Only 3.6% of owner households spend more than 30% of their household income on shelter as opposed to the provincial average of 10.6%.	
		About 26.9% of tenant household also spent more than 30% of their household income on shelter as opposed to the provincial average of 39.4%.	
		Housing development quite remarkable with a two sectional divison of the town into old town site and new town site, and about 7.3% of the total 545 houses in the town constructed between 2011-2016	
		The municiapl government has to release more lands to residents to allow for more housing developments in the town.	

Education	Moderate	Town endowed with educational facilities for primary, secondary, and post-secondary education, but college is under-utilised	Community Accounts (2016), CONA, Baie Verte Campus (2018)
		As at 2016, 75.7% of residents 15 years and above had at least a high school diploma, 4.2 % below St. Lawrence, 12.9% below Wabush, and 1% below the provincial average	
		In 2016,10.4% of the residents with high school diploma had a bachelor's degree or higher, 0.5% to 3.8% above the peer communities, and 4.4% below the provincial average	
		Student enrolment in the town's college is falling due to less course offerings	
Sense of Place & Cultural Identity	Good	Strong sense of place and cultural identity among the residents of Baie Verte	Community Accounts (2010, 2016)
		Between 2015-2016 about 92.3% of people living in Baie Verte had a strong feeling of attachment to their community, above the provincial average of 79.6%	
		As at 2010, 92.5% of residents felt safe in their community and surrounding area, 3.1% above the provincial average	
Participation & Governance	Moderate	Resident's participation in local governance is poor based on municipal elections and voter turnout, reflective of the provincial situation in NL	Baie Verte Town Office (2018), Personal Observation (Nov-Dec, 2018)
		The spirit of community participation and volunteerism is reported to be high, reflecting the strong community connectedness and sense of place present in the town.	
		Most key departments and administrative units of the town such as: the Fire Department; the Green (Recycling) Depot; the Recreation Commission and several other town committees are being run by community volunteer groups	