



BEAVER DAM COMMUNITY WELLNESS STUDY

**AN EXAMINATION OF SOCIO-ECONOMIC AND HUMAN HEALTH CONDITIONS THROUGH THE
LENS OF ENVIRONMENTAL IMPACTS**

Prepared by Millbrook's Consultation Department

December, 2021

Acknowledgements

This report is the product of extensive community engagement with the people most directly impacted by the work proposed in the Beaver Dam Environmental Impact Statement. This report draws upon the stories, experiences, knowledge and reactions of Millbrook band members living in Beaver Dam, Sheet Harbour and in Millbrook (near Truro). We appreciate everybody who took the time to attend information session, message the consultation staff, meet via Zoom, chat on the phone and everyone who invite us to their homes, sharing their stories over tea.

This report is dedicated to the late Jeff "Gump" Asprey (October 1967-November 2021) who was instrumental in the documentation of our band member's spatial land use, as well as shedding light on the role that traditional harvesting plays in food security. For this, we thank you.

Table of Contents

Community Background	pg. 4
Methodology	pg. 6
Eastern Shore Satellite Community On & Off Reserve Populations	pg. 8
Social Assistance in Millbrook First Nation	pg. 9
Food and Grocery Cost Variability Between Urban & Remote Areas	pg. 10
Rising Cost of Food	pg. 13
Meat Cost Variability Between Urban & Remote Areas	pg. 14
Rising Cost of Meat in Canada	pg. 16
Food Costs & Food Security	pg. 16
Harvesting Activities & Food Security	pg. 18
External Environment	pg. 20
Residential Proximity to Pollution Sources	pg. 21
Residential Proximity & Environmental Racism/Racialization	pg. 23
Water Quality	pg. 25
Mental Health Impacts	pg. 29
Safety, Justice & Security	pg. 31
Employment with Atlantic Gold (St. Barbara)	pg. 32
Conclusion	pg. 33

Community Background

Millbrook First Nation is a Mi'kmaw community, comprised of several parcels of reserve land, with its administrative base residing within the town of Truro. Millbrook First Nation has satellite reserve lands in Beaver Dam, Sheet Harbour, and Cole Harbour. Millbrook First Nation is governed by a Chief and twelve Council members and has a total membership of approximately 2,061 band members (as of March 2nd, 2021). About half of all band members live on-reserve, the rest are spread mainly throughout central and eastern portions Nova Scotia, Canada and New England.

During the late 1700's and the early 1800's Mi'kmaq were living along the banks of the Salmon River near the present-day village of Bible Hill. This parcel of land was sold in 1855 to the School of Agriculture, which is now owned by Dalhousie University. As the plans for the Agricultural College expanded, Mi'kmaq were removed to a property on King Street, where the St. Mary's School is now located. Later on, Mi'kmaq referred to this site as Christmas Crossing.

In 1873, Mi'kmaq Peter Wilmot, a renowned cooper, was living at Christmas Crossing and spoke about the abundance of wildlife and ash trees on a tract of land he frequented while harvesting near Hilden. Wilmot was appointed spokesperson to speak with the Indian Agent about acquiring this new piece of land.

By December, 1886, the new Indian Reserve near Millbrook was well established and was able to secure funds to construct the Sacred Heart Church and an Indian Day School. Both buildings were erected by the Millbrook community just before the turn of the century in 1897.

The original tract of reserve lands was 35 acres; between 1904 and 1910 an additional 120 acres was purchased by the Millbrook reserve. In December 1917, the Halifax Explosion killed more than 1500 people, including more than 40 Mi'kmaq who were living at Tufts Cove, on the Dartmouth side of Halifax Harbour. The Mi'kmaq who did survive were denied relief by the Halifax Relief Commission and were forced to move to Millbrook and the neighboring community of

Sipekne'katik. This was a difficult period and in 1918, a farm near the Millbrook reserve was purchased to help accommodate the Halifax County Mi'kmaq who moved there. Millbrook was the first experiment on the part of the Department of Indian Affairs to centralize Mi'kmaq to reserves.

Beaver Dam is located in Halifax County along Highway 224 and is a satellite community belonging to Millbrook First Nation. The reserve was established on March 2, 1867 and is approximately 49.4 hectares in size. There are a small number of homes and hunting camps located on the property but the land at Beaver Dam and the surrounding area is harvested extensively by community members. The estimated current population on reserve is 22, with a total of five homes and four small cottages/camps (CMM 2016:16). However, a new housing development of some 69 homes has been proposed for the Beaver Dam reserve.

Sheet Harbour is located along Highway 7, approximately 112 kms from Halifax, and is comprised of two lots amounting to 32.7 hectares. The land was purchased from William Tupper in 1915, for the purpose of creating an Indian Reserve. The reserve was set aside under the administration of Millbrook First Nation in 1960. There are approximately 75 members living on reserve with nine homes, and two trailers, as well as a wharf, community hall and a convenience/gas bar (CMM 2016:16).

Cole Harbour is located in Halifax County, within the Halifax Regional Municipality, along Caldwell Road. The satellite reserve consists of 43.75 acres of property. The land was officially allotted to Millbrook First Nation by Order-in-Council 1960-261 on March 3rd, 1960 as part of a broader effort to allot all reserve lands to specific Mi'kmaq bands. However, the reserve had a long history of Mi'kmaq use and occupation before its formal assignment to Millbrook in the 1960's. There are roughly 20 houses in the area, and eight commercial buildings, band-owned apartment complexes, government and business offices, a corporate division of General Dynamics, a gas station, community centre and gaming facility.

Methodology

The wellness study will consist of a 2-tiered analysis, whereby Community Wellness indicators and Personal & Family Wellness indicators will be assessed. Community Wellness indicators include matters of available infrastructure and service delivery, offered by Millbrook First Nation and the local Municipality – Halifax Regional Municipality (HRM). These matters at face value are external from people's lived experience but have a bearing on their health outcomes. Examples include, water quality, types of water wells, proximity to hazardous sites, social services, food costs, etc. Lastly, baseline data has been compiled regarding band service usage, the external environment, nearby pollution sources, local emergency response services and infrastructure in the community and general area.

The Community Wellness analysis involved mostly interviews with Millbrook band administration and Millbrook Health Centre staff. Millbrook's internal records were used, however, only aggregate level and de-identified data was reported. Meaning, the report will not have names attached. Figures were also "rolled up" into meaningful groups, as an added protective measure for anonymity and confidentiality.

Personal & Family Wellness indicators address the personal lived experiences and perspectives of our band membership. More specifically, members with a direct connection to the Beaver Dam and Beaver Lake I.R. area – permanent residents, family/friends of permanent residents and general land users. A short survey, consisting of 13 questions was administered to nearly 40 band members to inquire about:

- Their concerns about the Beaver Dam mine;
- The personal significance of the Beaver Dam lands;
- Opinions regarding the proposed alternative harvesting areas;
- Harvester information about duration and distance of hunting trips, method of transportation and frequency of harvesting;

- Sharing of traditional foods, frequency of traditional food consumption and the purpose of traditional food consumption; and
- Whether or not they intend to work for the Proponent.

Questionnaires and interviews provide a grassroots perspective en masse. Questionnaire data is helpful when quantifying perspectives and impacts, whereas interviews help provide context for the statistical data. The paper surveys were administered in-person. They were circulated amongst the Beaver Dam residents via door-to-door delivery. A community information session was held on December 13th, 2021 at the Sheet Harbour Wildlife Association's building and paper copies were shared at the session. Protective measures were put in place, in terms of data analysis, to prevent identification of research participants. This includes aggregate data reporting, deidentified data reporting and the use of percentage reporting. When data is reported as a percentage (%) of a whole (in this case the Eastern Shore satellite population and others) you avoid the risk of probable identification associated with individual head counts. Meaning, if we say "3 people in Beaver Dam said that..." it may be possible, through the process of elimination or deductive reasoning, to determine who those 3 people are. However, if we were to report findings in percentages, we can then say that "15% of Beaver Dam residents said that..." Thus, protecting their identities.

The record level data was input and processed using SPSS. The SPSS dataset will be kept on the Consultation Coordinator's office desktop, which is password protected. The SPSS data will be kept in a password protected folder on the desktop to ensure that access is limited to just the Consultation Coordinator. From there, findings were presented in a final report, reviewed by Millbrook Chief and Council prior to submission to the Proponent (St. Barbara Ltd.) and regulator (Impact Assessment Agency of Canada).

Eastern Shore Satellite Community On & Off Reserve Populations

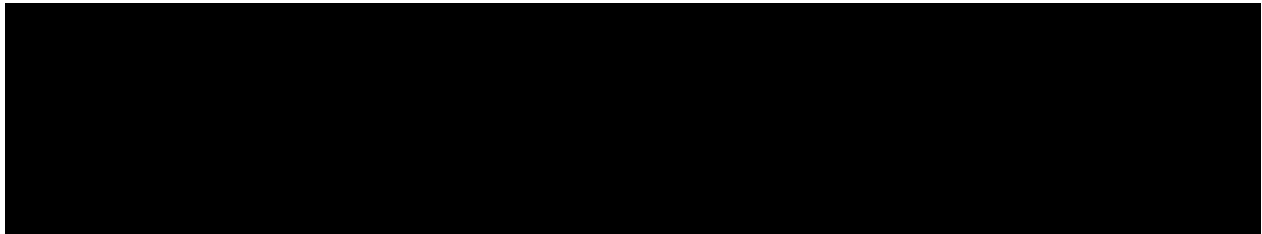
According to Millbrook’s finance department’s records, there are 16 adult band members living on reserve in Beaver Dam and 21 members in Sheet Harbour – 37 in total (see Table 1.0). Only one band member lives off reserve in Beaver Dam, in a home near the reserve boundary. There are currently 15 adult band members living off reserve in Sheet Harbour. It should be noted that the figures contained in the table below do not account for children or registered *Indians* from other First Nations who are living in the Beaver Dam/Sheet Harbour area. Many parents do not register their children right away, so it is difficult to get an accurate reflection of the total band population. Therefore, we are reporting adult (19 years and older) statistics.

Table 1.0: On and off reserve population in Beaver Dam and Sheet Harbour (19 years and older)¹

Reserve Status			
Community	On-reserve	Off-reserve	Total by community
Beaver Dam	16	1	17
Sheet Harbour	21	15	36
Total	37	16	53

The table below (Table 1.1) provides a breakdown of the number of houses in Beaver Dam and Sheet Harbour. Millbrook First Nation has recently purchased two houses on the peripheral boundary of the reserve lands in Beaver Dam and Sheet Harbour. Neither have been converted to reserve lands through Indigenous Services Canada’s (ISC) addition to reserve (ATR) process. These numbers will increase by one in the near future when the processes are finalized.

Table 1.1: Total number of houses on reserve in Beaver Dam and Sheet Harbour



¹ The figures contained in Table 1.0 represent registered Millbrook First Nation band members who are 19 years and older, living both on and off reserve in Beaver Dam and Sheet Harbour.

Social Assistance in Millbrook First Nation

Many Mi'kmaq households in Nova Scotia are currently living in poverty. According to the 2019 *"Report Card on Child and Family Poverty in Nova Scotia Three decades lost,"* "the highest child poverty rates in Nova Scotia are seen in postal areas where higher percentages of African Nova Scotian and Aboriginal children live (including those that live on-reserve)."² The report goes on to say that, "Census data shows that 1 in 4 Aboriginal children in Nova Scotia were low-income in 2015, and [T1 Family File] data from 2017, shows low-income rates well over 50% in postal areas that include reserve communities."³ The Regional Health Survey (2015-2016) data, conducted by the Union of Nova Scotia Indians (UNSI), tells us a similar story. Their work shows that 64.4% of First Nations adults living on-reserve in Nova Scotia have a reported household income less than \$40,000.⁴ In Millbrook, we have [REDACTED] social assistance (welfare) recipients whose income range falls well within the RHS's lowest household income range. Knowing that we have about 478 band members living on reserve in Millbrook (Truro), [REDACTED] of Millbrook band members are on social assistance (welfare).

In Beaver Dam and Sheet Harbour, the proportions are much higher than the Truro reserve. Without revealing the number of social assistance recipients in each of the satellite communities, we found that [REDACTED] of those living on reserve in Beaver Dam were on social assistance, whereas [REDACTED] of those living in Sheet Harbour received social assistance. Compared to Millbrook's reserve in Truro, there are fewer jobs in the eastern shore and virtually no jobs available on-reserve, working for the band. Opportunities for gainful employment are rare.

The RHS data tells us that a large proportion on Mi'kmaq adults have a household income less than \$40,000 per year, so we asked Millbrook's social development department to provide aggregated data for social assistance recipients living in the eastern shore satellite communities.

² L. Frank & L. Fisher, 2020, "2019 Report Card on Child and Family Poverty in Nova Scotia Three decades lost," p. 20. Canadian Centre for Policy Alternatives. Nova Scotia, Canada.

³ Ibid.

⁴ Union of Nova Scotia Indians (2015-16). "First Nations Regional Health Survey," pg. 14. Membertou, NS.

The amount paid depends on the number of adults and children in the home and additional funds are made available in some cases if members have a chronic health condition that requires additional expenditures. On average, these families receive [REDACTED] every two weeks in social assistance. This works out to an average annual household income of [REDACTED]. For single recipients, they receive an average amount of [REDACTED] every two weeks, or [REDACTED] per year. Millbrook's social development department covers the power bills and oil heating bills for social assistance recipients. Even when one accounts for the fact that their power and heating bills are covered, [REDACTED] for a family and [REDACTED] for a single person is not a lot of money to live off.

Understanding the social assistance situation in Millbrook's satellite communities is important because it highlights the fact that the socio-economic conditions in the area, demographically speaking, are perfect for food insecurity. The 2017 study conducted by the FoodARC tells us that, "[l]ow-income is the strongest predictor of food insecurity. National data consistently show that households with children... Indigenous peoples, particularly in Northern and remote communities... households relying on Income Assistance... are at greater risk of food insecurity compared with the general population."⁵ Our band members living in the eastern shore satellites fall into a number of the predictive categories that are statistically associated with food security. This is one of the main reasons that we believe the open pit mine proposed in Beaver Dam will pose irremediable problems.

Food and Grocery Cost Variability Between Urban & Remote Areas

The cost of food and household cleaning items in remote communities tend to be priced higher than they are in an urbanized setting. The National Nutritious Food Basket (NNFB) is a costing metric designed to monitor the cost and affordability of healthy eating in different regions across

⁵ Voices for Food Security in Nova Scotia. (2017). "Can Nova Scotians afford to eat healthy? Report on 2015 participatory food costing," (pg. 17) Halifax, NS: Food Action Research Centre (FoodARC), Mount Saint Vincent University.

Canada. The NNFB includes “approximately 60 nutritious foods and their quantities for individuals in various age and sex groups.”⁶ When we look at the market basket measures in rural communities, we tend to see higher prices in rural areas, compared to more urban centres.⁷

Table 1.2 (see below) shows the price differences between the remote/rural grocers in the eastern shore, compared to urban grocers in Truro. The food item list is reflective of some of the most common grocery items (food and cleaning products). The prices were recorded on November 3rd, 2021, at the Sobeys in Truro, NS and November 4th, 2021 at the Foodland in Sheet Harbour, NS; and Co-op in Upper Stewiacke, NS. Foodland and Co-op were chosen, because they are the closest grocery stores for band members residing in Beaver Dam and Sheet Harbour. The Truro Sobeys was chosen as a reference point because the pricing is standardized throughout the grocery store franchise. It is the benchmark for comparison, illustrating the differential in food costs that shoppers in the eastern shore satellite communities pay on a daily basis.

When we compare the “food basket” prices from each shopping location we see that Sobeys’ prices are significantly cheaper than those from the more remote shopping outlets. Using Sobeys as the basis for comparison, the Foodland prices were about 13.6% higher, whereas the Co-op’s prices were 15.6% higher than they were at Sobeys’. On an item-by-item basis, all but 3 items from the Foodland were more expensive, with the exception of the 5lb bag of potatoes (-\$1.00), cartons of 12 large white eggs (-\$0.20) and laundry detergent (-\$0.50). Similarly, most prices found at the Co-op were more expensive than the benchmark, with the exception of the 3lb bag of apples (-\$1.00), 5lb bag of potatoes, (-\$1.50), bottled vegetable oil (-\$1.30), dried rice (-\$0.30), small berry jam (-\$0.30), canned luncheon meat (-\$0.50) and cartons of 12 large white eggs (-\$0.90). With respect to the two remote grocery stores, potatoes and eggs were priced lower than Sobeys’.

⁶ Government of Canada, 2020. “Food and Nutrition Surveillance: National nutritious food basket.” Retrieve from: <https://www.canada.ca/en/health-canada/services/food-nutrition/food-nutrition-surveillance/national-nutritious-food-basket.html#head1>

⁷ Voices for Food Security in Nova Scotia. (2017). “Can Nova Scotians afford to eat healthy? Report on 2015 participatory food costing,” (pg. 17) Halifax, NS: Food Action Research Centre (FoodARC), Mount Saint Vincent University.

Table 1.2: Local food prices in Truro, Sheet Harbour and Upper Stewiacke for commonly available items.

Food Items	Sobeys (Truro/Dartmouth) Date retrieved: Nov. 3rd 2021	Foodland Prices (Sheet Harbour) Date retrieved: Nov. 4th 2021	Co-op (Upper Stewiacke) Date retrieved: Nov. 4th 2021
Bag of apples (3lbs)	\$5.99	\$5.99	\$4.99
Bag of potatoes (10lbs)	\$5.99	\$6.99	\$5.99
Bag of potatoes (5lbs)	\$4.99	\$3.99	\$3.49
Loaf of bread (white)	\$2.49	\$2.99	\$3.59
Can of beans	\$1.49	\$2.29	\$2.29
Can of soup (10oz)	\$0.99	\$1.19	\$1.09
Bottle of vegetable oil	\$5.29 (canola)	\$5.79 (canola)	\$3.99 (vegetable)
Dried rice (900g)	\$2.99	\$3.79	\$2.69
Dried macaroni (900g)	\$1.49	\$2.49	\$4.79
Spaghetti sauce	\$3.69	\$3.69	\$3.69
Dried oats (1kg)	\$3.49	\$3.99	\$3.79
Jar of peanut butter (1kg)	\$4.99	\$5.29	\$5.89
Berry jam (500ml)	\$4.79	\$5.29	\$4.99
Berry jam (250ml)	\$3.49	\$3.79	\$3.19
Cheez Whiz (450 ml)	\$6.99	\$7.79	\$8.29
Bag of flour (10kg)	\$11.99	\$14.49	\$14.99
Bag of flour (2.5kg)	\$4.99	\$9.99	N/A
Bag of sugar (5lbs)	\$1.88	\$3.69	\$3.39
Can of tuna (6oz)	\$1.39	\$1.79	\$1.99
Canned luncheon meat (340g)	\$3.29	\$3.29	\$2.79
Bologna (375g)	\$2.99	\$4.99	\$4.94
Hotdogs (package of 12)	\$2.99	\$4.19	\$3.49
Coffee grounds (1kg)	\$9.99	\$9.99	\$9.99
Tea bags (72-80 bags)	\$4.29 (80 bags)	\$4.69 (80 bags)	\$5.99 (72 bags)
Jug of water (4L)	\$1.29	\$1.79	\$1.79
Carton of milk (2L)	\$3.54	\$3.99	\$4.99
Block of cheese (400g)	\$5.99	\$7.49	\$7.79
Butter	\$4.99	\$5.69	\$7.59
Dozen eggs (large white)	\$4.59	\$4.39	\$3.69
Dish soap (500-600ml)	\$3.29	\$3.49	\$3.99
Laundry detergent (2L)	\$4.99	\$4.49	\$6.29
TOTAL COST	\$126.64	\$143.80	\$146.45

Rising Cost of Food

According to *"Canada's Food Price Report"* (2021), "overall, the food inflation index has outpaced general inflation over the last 20 years in Canada. The typical grocery bill for Canadians has risen approximately 170% over the last two decades. This means that, over the last 20 years, Canadian households—especially those in Eastern Canada—have been spending a greater proportion of their household budgets on food."⁸ The inflation of food prices have been further exacerbated by the COVID-19 pandemic, because of the unique challenges experienced by the agricultural industry. With social distancing and increased safety measure came new ways of processing and distributing food. Many facilities were also short-handed, requiring processors to reduce capacity. With these changes comes higher food prices.

With Canada's food prices on the rise, especially in the eastern provinces, First Nation's social assistance rates (of payment to recipients) has remained the same for over 25 years (1994 according to our Social Development Officer). How are the most impoverished Nova Scotians expected to keep up? When one considers that most band members living in the eastern shore satellite communities are living off of social assistance, as a primary household income source, it becomes apparent that the cost of groceries make it hard to avoid food insecurity.

There is only one food bank in the Sheet Harbour area, located on Highway 7, but their hours of operation are inconsistent. They are only open one day per week, Wednesday's from 10:00AM-4:00PM. If our band members required access to free food, because of existing food insecurity and the rising prices of groceries, they would be at the mercy of the food bank's infrequent hours.

⁸ Dalhousie University, University of Guelph, University of Saskatchewan & The University of British Columbia, 2021. "Canada's Food Price Report: 11th Edition 2021."

Meat Cost Variability Between Urban & Remote Areas

Prices for uncooked meat products were presented separately because in some cases there was not a common product, in terms of quality and packaging. The average package of raw ground beef, chicken breast and pork chops, that were universally available at all three grocers, was 1 kilogram. This translates to ~35.3oz. A 2012 study on the estimated yield of raw versus cooked meats and poultry, conducted by the USDA's Nutrient Data Laboratory, showed that meat loses about one quarter of its raw weight when cooked.⁹ 25% of the raw weight is lost from the exposure to heat, which causes the release of water, as well as rendered fats and collagens contained in skin, bone and cartilage. Thus, 1kg of uncooked meat yields 26.5oz (750g) of cooked meat. Canada's Food Guide suggests that 2.5oz (75g) of meat and poultry is considered a serving size.¹⁰ Each 1kg package of uncooked meat will yield about 8-10 servings (adjusted for bones and trimmings). One package of meat will in turn provide an average household of 4 people with 2 meals, assuming that meat is consumed only once daily and that they are not eating above the recommended serving size of 2.5oz (75g).

The most noticeable difference was observed with the price of chicken, where the prices in Stewiacke were about 40% higher (Table 1.3). No difference was observed between the prices of chicken at Sobeys and Foodland, however the quality found at Foodland was inferior. The grocer had a freezer marked "reduced meat," which was filled with frozen past prime meat (mostly chicken and beef). Had the chicken breast been fresh, it would be safe to assume that it too would be more expensive. Pork chops followed a similar trend, in that Foodland and Sobeys shared a common price, whereas Co-op was priced higher. Ground beef was more expensive at Sobeys, however it was much fresher (packaged the same day that the prices were recorded). This was not the case with Foodland and Co-op.

⁹ U.S. Department of Agriculture, Agricultural Research Service. 2012. USDA Table of Cooking Yields for Meat and Poultry. Nutrient Data Laboratory Home Page: <http://www.ars.usda.gov/nutrientdata>

¹⁰ Government of Canada, Health Canada. "Eating Well with Canada's Food Guide: What is a Food Guide Serving of Meat and Alternatives." Retrieved from, https://www.canada.ca/content/dam/hc-sc/migration/hc-sc/fn-an/alt_formats/hpfb-dgpsa/pdf/food-guide-aliment/serving_meat-viande_portion-eng.pdf

Table 1.3: Local prices for uncooked meat products in Truro, Sheet Harbour and Upper Stewiacke.

Food Items	Sobeys (Truro/Dartmouth) Date retrieved: Nov. 3 rd 2021	Foodland (Sheet Harbour) Date retrieved: Nov. 4 th 2021	Co-op (Upper Stewiacke) Date retrieved: Nov. 4 th 2021
Boneless skinless chicken breast	\$11.00/kg (with bone and skin)	\$11.00/kg (reduced price, boneless, skinless, frozen)	\$15.41/kg (with bone & skin)
Ground beef (medium ground)	\$12.76/kg	\$9.90/kg	\$10.98/kg
Pork chops	\$8.80/kg	\$8.80/kg	\$8.99/kg
TOTAL COST	\$39.17	\$29.70	\$35.38

If we were to average the prices of the three meat products, we see that the average cost of shopping for meat in the remote grocery outlets is \$13.21/kg for chicken, \$10.44/kg for ground beef, \$8.90/kg for pork chops and an overall average expense of \$10.85/kg of meat products. The high prices in remote communities make it challenging for First Nations to eat a nutritious and balanced diet and food prices are continuously rising.¹¹

If you consider the information above, (1) the majority of band members in the project area are receiving social assistance, (2) an average household receives ██████ bi-weekly, (3) that a 1kg package of meat will provide a household of 4 people with 2 meals, and (4) \$10.85 is the average price of meat per kilogram, we see that 10.3% of their income goes towards putting meat on the table once per day (7 days per week). The charity Canadian Feed The Children (2020) discusses the intersections between loss of harvesting territory and issues of food insecurity. “With the loss of traditional food access and practices, many Indigenous families turn to commercial grocery stores where they are often met with high prices for nutritious food, particularly in remote areas. Without significant economic opportunity, or benefit from traditional territories’ natural resources, the cycle of poverty and food insecurity is difficult to overcome.”¹² This is especially true while on social assistance in Beaver Dam.

¹¹ Ibid.

¹² Canadian Feed The Children, 2021. “Why is there food insecurity in Canada?” Retrieved from, <https://canadianfeedthechildren.ca/the-feed/why-food-insecurity/>

Rising Cost of Meat in Canada

The rising prices of food and meat is not just a problem affecting Indigenous peoples. According to a study conducted by Dalhousie University's Faculty of Agriculture, about 50 per cent of the Canadians surveyed, said that they purchased and consumed less meat in the past 6 months, because the cost was too high.¹³ "For example, from January to August of this year, the price of a one-kilogram sirloin steak rose by 11.6 per cent, from \$22.68 to \$25.33, while 500 grams of bacon increased by 12.5 per cent, from \$7.32 to \$8.24. The price of a one-kilogram chicken rose by 10.6 per cent, from \$7.35 to \$8.13."¹⁴ And when discussing the average annual rate of inflation, it was noted that you usually see an increase of 2-3% per year, but 2020/2021 saw a spike of 10.6%. The Voices for Food Security in Nova Scotia (2017) study highlights how the prices of food across Canada are steadily increasing as a result of the expanding global systems and strain on the local distribution networks. Additionally, the rise in fuel costs and rise in Nova Scotia's electrical utility rates make it more expensive to transport and store food. Between 2002 and 2015 "the monthly cost of a basic nutritious diet for a reference household of four, using current dollars (CAD), has increased by 63%," from \$572.90 to \$937.11.¹⁵

Food Costs & Food Security

We know from our community engagement and consultation work that the eastern shore communities rely heavily upon traditional foods. Especially when it comes to putting protein on the table, in the form of wild game. In our last consultation report (2021), "*Beaver Dam Community Consultation Report: A community perspective on impacts, alternative harvesting areas and haul roads*," our participants highlighted the fact that their land use is "more about avoiding issues of

¹³ Dalhousie University, 2021. "More than 2 Canadians in 5 have changed their behaviour to save money at the grocery store compared to 2020." Halifax, NS

¹⁴ iPolitics, 2021. "Nearly 50 per cent of Canadians say they can't afford meat," retrieved from: <https://ipolitics.ca/2021/09/30/nearly-50-per-cent-of-canadians-say-they-cant-afford-meat/>

¹⁵ Ibid, pg. 15.

food security and enjoying their rights as the beneficiaries of Mi'kma'ki, than it is about playing outside." Our harvesting rights are also rights to food.

This is not a reality unique to Millbrook. It is a well-established fact that communal harvesting (marine and terrestrial) help First Nations peoples address issues of poverty and food security in their communities. On the topic of the Cape Breton Highlands Moose hunt, "[a] Mi'kmaw scientist says a moose cull in the Cape Breton Highlands National Park is one of the best ways to fight food insecurity in the province's First Nations communities."¹⁶ Moose management initiative coordinator Clifford Paul noted that "[f]or families on social assistance, it's hard for them to just buy meat from the grocery store," and that the communal moose harvest "is a big thing and it sure helps families with food security issues."¹⁷ Large wild game like moose and deer are great ways of accessing cheap, virtually free, meat for First Nations. One mature deer can yield ~50-60lbs (22.7kg-27.2kg) of lean meat. Accounting for water loss from cooking, one deer can yield 17-20kg of cooked meat, or between 227-272 servings of meat. This is a huge, missed opportunity if band members lose access to harvesting areas and if the sensory impacts drive wildlife (food sources) away.

In the Beaver Dam consultation report, submitted in the spring of 2021, community members likened the possible loss of Crown lands to the loss experienced from residential schools. What we heard was, if Millbrook band members lose access to the lands in Beaver Dam (the only place Millbrook band members can exercise their harvesting rights on and near reserve lands), for the life of the proposed mine, many harvesters will lose their way of life. When we consider the project could be in operation for 5-8 years, subsequent generations of young harvesters will miss out on the opportunity to learn their traditional ways. The Truth and Reconciliation Commission (TRC) Report highlights the experiences of residential school survivors. "If fortunate enough to

¹⁶ Canadian Broadcast Centre, 2017. "Meat from Cape Breton moose cull used to fight poverty in First Nations." Retrieved from, <https://www.cbc.ca/news/canada/nova-scotia/moose-meat-child-poverty-parks-canada-cape-breton-highlands-cull-1.4440269>

¹⁷ Ibid., 2017.

return home, many survivors spoke of the inability to readjust to the life and language of the reserve. Many were 'forgetful of traditional ways and foods'.¹⁸

Work by Skinner (et. al., 2013) echoes the concerns regarding the role that research is "pointing to a decline in food sharing networks... reasons including the high cost of hunting; an increasing number of households without a hunter; and stress on hunting yields due to environmental changes."¹⁹ If Millbrook's eastern shore band members lose access to harvestable lands and are expected to hunt elsewhere (as per the company's proposed mitigations) the impact will not just be felt by individual harvesters and their households, but also by the people that they provide for, communally speaking.

Harvesting Activities & Food Security

This section takes a look at the data from the survey administered in December, 2021. Millbrook's *"Beaver Dam Community Consultation Report: A community perspective on impacts, alternative harvesting areas and haul roads"* provided a community perspective on the company's proposed alternative harvesting areas. The survey asked band members how they felt about this request – to harvest elsewhere. 100% (n = ~40) of the participants said that this was unreasonable and that they would prefer to continue harvesting as usual.

84% of participants said that they themselves were a harvester, whether it be hunting, fishing, gathering, foraging, trapping, etc. Most trips are a total ("there and back") of 15-20kms, with the longest trip being reported by a community member who typically covers 30km of ground each trip. The majority of harvesters said that they use their truck (~62%) for most of the travel and venture into the woods, off of the road, on foot. Nearly half said that they primarily use

¹⁸ Canadian Feed The Children, 2021. "Why is there food insecurity in Canada?" Retrieved from, <https://canadianfeedthechildren.ca/the-feed/why-food-insecurity/>

¹⁹ Skinner, K., Hanning, R.M., Desjardins, E. et al. Giving voice to food insecurity in a remote indigenous community in subarctic Ontario, Canada: traditional ways, ways to cope, ways forward. BMC Public Health 13, 427 (2013). <https://doi.org/10.1186/1471-2458-13-427>.

an all-terrain vehicle (ATV). The main difference worth highlighting about the use of trucks versus ATV's is that trucks require actual roads and are capable of bringing back larger amounts of harvested resources, whereas ATV's are better suited for smaller excursions.

When asked how many times they went hunting, trapping, fishing, or gathering in the past 6 months, responses ranged from as few as 3 times, to as many as 60+ outings. When we average the total number of trips, we find that Millbrook members in the eastern shore harvested roughly 14 times in the past 6 months. With about 4 weeks in each month and the 6-month timeframe specified in the survey question (total 24 weeks), this works out to slightly more than 2 trips each month. Each trip ranged from 2 to 10 hours, with an average trip lasting 6 hours.

Participants were then asked about the foods that they harvest. The most commonly reported items were deer (100%) and trout (92%). Every harvester that answered the question inquiring about the foods they harvested (several opted to skip the question) said that they hunt deer. This illustrates the significance that deer hunting plays in food security. It was mentioned during engagement that deer is a great protein source, because it is antibiotic and steroid free, low in fat and readily available – "it's the perfect food." Deer has the added benefit (noted above) of providing 227-272 servings of quality protein. Similarly, trout and perch are readily available, can be caught in large quantities and frozen, while providing a quality, lean protein source.

The survey asked how often participants ate traditional foods in the past month. Responses included "every day," "several times per week," "several times per month," "once or twice per month," "never" and "don't know/refuse to answer." Not a single person said "never," meaning every participant had consumed some sort of traditional food. The majority of respondents said that they consumed traditional foods "several times per week."

The last question in the harvesting information section of the survey asked participants if they consume traditional game to offset the cost of their grocery bills. In other words, do economics play a role in their eating. 100% of the people who responded to the question (several

opted not to complete the question) said that they eat wild game to offset the cost of their grocery bill. Taking this into consideration (the frequency of traditional game consumption and cost saving rationale for traditional game consumption) and the information contained above in the “Food Costs and Food Security” section, we see that the cost of protein replacement (wild game with store bought items) will be quite high for Millbrook band members living in the eastern shore. Especially for those receiving social assistance. The next sections look at the significance that the lands Beaver Dam hold for our community, in terms of land use, while shedding light on the importance of preserving Beaver Dam’s pristine state.

External Environment

As noted above, Millbrook First Nation is comprised of 4 land bases – Truro, Beaver Dam, Cole Harbour and Sheet Harbour. One of the big challenges that we are faced with is the lack of harvesting areas in the immediate proximity. Millbrook, Sheet Harbour and Cole Harbour are all on the peripheral boundary of their neighboring municipalities, meaning that these communities are not near densely forested areas, or areas where harvesters can safely use their firearms. Not only do these areas lack harvesting access, but they are surrounded by an array of pollution sources and potentially contaminated sites. Beaver Dam is currently the only location within our land base that we can exercise our harvesting rights, both on and off-reserve in the immediate proximity. It is also the only land base that is not surrounded by potential contaminants and pollutants. We wish to keep it that way, to preserve our health and so we can continue our traditional harvesting practices.

When we look closely at the external environment in the 4 reserve land bases, we find that the reserve lands in Truro and Cole Harbour have the highest volume of nearby pollution sources (see Table 1.4). The list of pollution generating sites was generated from the Regional Health Survey’s Community Survey, which highlights a number of common environmentally damaging

sites that may have adverse impacts on the health of First Nations people.²⁰ The RHS community survey helps develop a profile of the presence and absence of community infrastructure, to help put discussions pertaining to health and wellness into perspective. Their work on proximity to pollution sources asks communities to indicate whether or not they are within 100km to hydroelectric power plants, farming operations, mines or quarries, etc. If we were to use the 100km measurement for Nova Scotia, we would check off every option, because the province is so small geographically speaking. The measurement of 100km may be appropriate for larger provinces, like Ontario, Quebec, etc.

Residential Proximity to Pollution Sources

The table below presents a list of pollution sources and potentially contaminated sites that are in the proximity to each reserve land base. "IA" means that the respective pollution source is in the immediate area (less than 10km away). "LA" represents sources in the local area (between 10-25km). "NA" means that the pollution source is not in the area. Meaning that it is either over 25km away, or our research did not show the presence of said pollution source. "Various" implies the presence of more than one of the corresponding pollution sources. The list was expanded beyond the pollution sources listed in the RHS study to include some of the sites listed in the "residential proximity to pollution sources and contaminated sites" literature.^{21 22 23 24 25} Additional items were added based on the environmental contaminants near our reserves that have been an environmental issue, or cause for concern. The literature shows that, in addition to environmental

²⁰ First Nations Information Governance Centre (FNIGC) (2012). Placing Individual Health in Context: Report of the 2008/10, RHS Community Survey. Ottawa: FNIGC.

²¹ Brender, J. D., Maantay, J. A., & Chakraborty, J. (2011). Residential proximity to environmental hazards and adverse health outcomes. *American journal of public health*, 101 Suppl 1(Suppl 1), S37–S52. <https://doi.org/10.2105/AJPH.2011.300183>

²² Rodriguez-Villamizar, L. A., Rosychuk, R. J., Osornio-Vargas, A., Villeneuve, P. J., & Rowe, B. H. (2018). Proximity to two main sources of industrial outdoor air pollution and emergency department visits for childhood asthma in Edmonton, Canada. *Canadian journal of public health = Revue canadienne de sante publique*, 108(5-6), e523–e529. <https://doi.org/10.17269/cjph.108.6136>

²³ Casella C, Garrone E, Gennaro V, et al. [Health conditions of the general population living near a steel plant]. *Epidemiologiae Prevenzione*. 2005 Sep-Dec;29(5-6 Suppl):77-86. PMID: 16646268.

²⁴ AnaAyuso-Álvarezab, JavierGarcía-Pérezcd, José-MatíasTriviño-Juárez (Et. Al.) (2020). Association between proximity to industrial chemical installations and cancer mortality in Spain. *Environmental Pollution*, vol 260, May 2020, 113869.

²⁵ Herrera, R., Radon, K., von Ehrenstein, O. S., Cifuentes, S., Muñoz, D. M., & Berger, U. (2016). Proximity to mining industry and respiratory diseases in children in a community in Northern Chile: A cross-sectional study. *Environmental health : a global access science source*, 15(1), 66. <https://doi.org/10.1186/s12940-016-0149-5>

disturbance, being in close proximity to industry has adverse health impacts on a variety of factors, such as respiratory illnesses, digestive problems and the development of various cancers.

Table 1.4 shows us that Cole Harbour is near (immediately or locally) 12 different types of pollution sources, with 9 falling within the immediate vicinity. Similarly, there are 10 contaminants in the Millbrook's (Truro) immediate area, with 11 total. Sheet Harbour is near 6 pollution sources, all within the immediate area. Beaver Dam has 7 total, with only 2 in the immediate area (>10km).

Table 1.4: Proximity to pollution sources

Pollution Source	Millbrook/Truro	Sheet Harbour	Beaver Dam	Cole Harbour
Large scale farming operation	IA	IA	LA	LA
Open pit mine	NA	NA	LA (Touquoy)	NA
Quarry	IA	IA	LA	LA
Pulp/Paper mill	NA	NA	NA	NA
Chipping facility	NA	IA	IA	NA
Oil and Gas Pipeline	LA	NA	NA	IA
Grain Elevator	IA	NA	NA	LA
Oil or Gas well	NA	IA (RJMI salvaging)	LA	NA
Nuclear Power Plant	NA	NA	NA	IA (decommissioned)
Chemical Factory	IA (Atlantic Chemex Ltd.)	NA	NA	IA (various)
Oil Refinery	NA	NA	NA	IA (decommissioned)
Dye pond	IA (decommissioned)	NA	NA	NA
Metal scrap yard	IA (John Ross)	NA	NA	IA (various)
Marine Ports	NA	IA	LA	IA
Power generating stations (Fossil fuel: coal, oil, gas)	NA	NA	NA	IA
Power generating stations (hydro)	NA	IA	IA	NA
Power generating stations (wind)	IA	NA	NA	NA
Industrial park	IA	NA	NA	IA
Cement plant	IA	NA	NA	IA
Processing plant	IA	NA	NA	NA

IA: Immediate area (Less than 10km)
LA: Local area (Between 10-25km)
NA: Not in immediate area (Over 25km)
 or unaware of sources in the area

GREEN
YELLOW
WHITE

The main reason that band members are so adamant about preserving the environmental conditions in the Beaver Dam area is because it is pristine, fruitful (in terms of harvestable resources) and it is secluded. To develop a mine in the area would affect their ways of life and livelihoods (in terms of food security and exposure to pollutants).

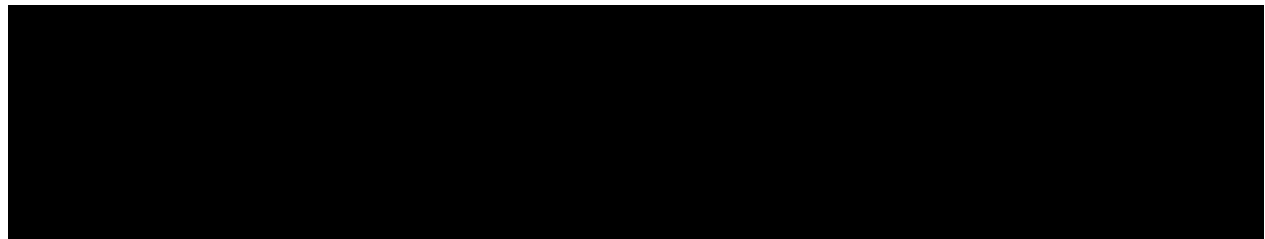
The wellness survey, conducted in December of 2021, asked participants what they found most appealing about the Beaver Dam area. Responses fell into 3 main categories – (1) resource abundance, (2) serenity and (3) family connection. 77% of participants said that the area was peaceful and quiet. They enjoy living in the area, or enjoy visiting the area because it is serene. 62% of participants said that it has a variety of water courses to fish and it has densely forested areas to hunt and trap. The lands are plentiful, which was appreciated by traditional food harvesters. 23% said that the most appealing part of Beaver Dam was the familial connection they share with the land. Participants said that it is their home, they grew up there or they have fond memories that are associated with the area.


Residential Proximity & Environmental Racism/Racialization

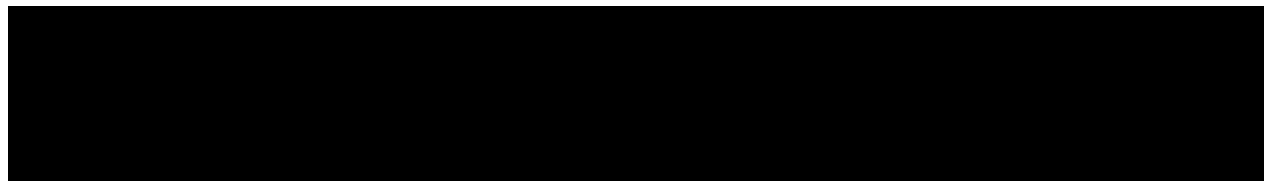
Table 1.4 makes it quite apparent that Millbrook is heavily burdened with the presence of pollution sources, making it increasingly difficult to utilize the land near and around the reserve. Many First Nations experience the same thing and attribute this reality to environmental racism and racialization.

Debates around environmental racism and racialization cite the fact that the concentration of industry and the residential proximity of industry to the community spaces are highest among marginalized groups (First Nations, immigrants, Black Canadians, etc.). By definition, “[e]nvironmental racism refers to any policy, practice or directive that differentially affects or disadvantages (whether intended or unintended) individuals, groups, or communities based on

race or colour.”²⁶ The literature conceives “environmental racism as an extension of institutional racism. These environmental justice theorists identify environmental racism by outcomes, regardless of the agent’s intent.”²⁷ Such outcomes include the proximity and concentration of industry near First Nations communities. With respect to Millbrook, Table 1.4 shows that there is a high density and close proximity of industry to reserve lands in the Millbrook/Truro reserve and Cole Harbour.



, which poses many concerns regarding water and soil contamination. From an air quality perspective, Millbrook (Truro) is bookended by air pollutants – 



As a community, we are growing tired of bearing the burden of these environmental risks. The Environmental Justice in Toronto Report (2007) notes that although there is a problem, there is a viable solution. “[T]he groups that suffer the most from environmental injustices, the urban poor, visible minorities... have the least power to change their circumstances. As a result, significant changes must be made in how the [government] addresses environmental justice issues if we wish to improve the plight of these marginalized groups.”²⁸ It was noted in the “Beaver Dam Community Consultation Report” (2021) that “[t]he federal government, via Indigenous Services Canada (formerly Indian Affairs), was responsible for the placement of Canada’s Indian reserves and the assignment of individuals to these communities. The federal government has a

²⁶ Bullard, R. D. (1993). The Threat of Environmental Racism. *Natural Resources & Environment*, 7(3), 23–56. <http://www.jstor.org/stable/40923229>

²⁷ Melissa Ollevier & Erica Tsang, 2007. “Environmental Justice in Toronto Report,” pg. 12. Toronto, ON.

²⁸ Teelucksingh, C. (2001). In *Somebody’s Backyard: Racialized Space and Environmental Justice in Toronto* (Canada).

fiduciary responsibility to the First Nations people of Canada to (1) ensure their health and safety and they have the role of (2) approving the Beaver Dam gold mine, which has an extensive list of potential adverse impacts.” Thus, we ask that the feedback gathered, and concerns raised through Crown consultation and Indigenous engagement be heard and acted upon.

In June of 2021, Millbrook First Nation publicly opposed the Beaver Dam mine project with a letter addressed to the Crown and the Proponent. The company swiftly replied with responses to our community’s concerns, however, our concerns are not satisfied. We will be submitting a letter of response in the near future to clarify that our worries were not adequately addressed. Our position is unchanged. Millbrook First Nation continues to oppose the development of the Beaver Dam mine.

Water Quality

Millbrook’s eastern shore reserves (Beaver Dam and Sheet Harbour) have had a long struggle with maintaining safe drinking water in band-owned homes. Throughout the years, residents have dealt with high levels of different arsenic, bacteria, suspended particles, etc. In response, the band invested in infrastructural upgrades to improve and maintain safe in-home water quality.

In the 1990s houses were upgraded from dug to drilled wells. Homes were also equipped with water softeners that use sodium pellets. More recently (within the past 10-15 years), homes were equipped with ultraviolet (UV) disinfection systems. Since these upgrades were put in place, the in-home water quality has been mostly acceptable. We know this because the Millbrook Health Centre, in partnership with technicians at Health Canada have been conducting in-home water monitoring to establish a baseline and to longitudinally monitor the quality over time.

Despite the precautions in place, the systems have their shortcomings. On November 5th, 2020, two structures in Sheet Harbour (one home and one community building) were found to

have “unacceptable” levels of arsenic in their tap water (readings of 0.026 mg/L and 0.093 mg/L respectively). This was likely due to improper maintenance of the water purification systems. The analysis and reporting were conducted by Bureau Vertias Labs in Bedford, Nova Scotia. With respects to the findings in these two locations, the report advised,

“This water should not be consumed. A treatment device is recommended to remove the arsenic from their water, if one is installed then it is time to change the filter. Natural sources, such as the dissolution of arsenic-containing bedrock, often contribute significantly to the arsenic content of surface and groundwater. Arsenic is a documented human carcinogen. Effects include abdominal pain and vomiting, diarrhea, pain to the extremities and muscles and weakness with flushing of the skin. These symptoms are often followed by muscle cramping and progressive deterioration in motor and sensory responses. Once a filtration system has been installed or the filter has been changed, please contact our office to conduct further tests.”

When we look at the in-home water testing for the houses in the Beaver Dam reserve (see Table 1.5 below) we see that water quality has been mostly satisfactory for the past 15 years (since 2006). This is largely attributed to the installation of the two in-home water purification systems, as well as the diligence of homeowners to ensure that they are consistently in proper working order.

Table 1.5: In-home water quality testing results for residents of Beaver Dam I.R., ranges (lowest and highest) of results from August 2006 to November 2021.

List of contaminants					
Total Coliforms (MPN/100ml)					
E. coli (MPN/100ml)					
Alkalinity (bicarbonate, as CaCO ₃ , mg/L)					
Alkalinity (carbonate, as CaCO ₃ , mg/L)					
Total Aluminum (mg/L)					
Ammonia (mg/L)					

Arsenic (mg/L)					
Barium (mg/L)					
Beryllium (mg/L)					
Bismuth (mg/L)					
Boron (mg/L)					
Cadmium (mg/L)					
Calcium (mg/L)					
Chloride (mg/L)					
Chromium (mg/L)					
Cobalt (mg/L)					
Colour (TCU)					
Conductivity (uS/cm)					
Copper (mg/L)					
E. coli counts (CFU/100ml)					
Hardness (total, as CaCO3, mg/L)					
Ion balance/Anion-cation balance (%)					
Iron (mg/L)					
Lead (mg/L)					
Magnesium (mg/L)					
Molybdenum (mg/L)					
Nickel (mg/L)					
Nitrate (mg/L)					
o-Phosphate (mg/L)					
pH					
Phosphorus (mg/L)					
Potassium (mg/L)					
Saturation pH (@ 20 C)					
Saturation pH (@ 4 C)					
Selenium (mg/L)					
Silicon (dissolved, as SiO2, mg/L)					
Silver (mg/L)					
Sodium (mg/L)					
Strontium (mg/L)					
Sulphate (mg/L)					
Thallium (mg/L)					
Tin (mg/L)					
Titanium (mg/L)					
Total anions (mEq/L)					
Total cations					
Total coliforms (counts, CFU/100ml)					
Total coliforms (counts, MPN/100ml)					
Total dissolved solids (mg/L)					
Total organic carbon (mg/L)					
Turbidity (NTU)					
Uranium (mg/L)					

Vanadium (mg/L)					
Zinc (mg/L)					

We as a community are concerned about the water quality worsening. The 15 years of in-home water quality data tells us that the systems are effective, but have their limitations, as illustrated by the two readings found in Sheet Harbour I.R. The Beaver Dam EIS sheds light on the likelihood of the situation worsening if the project is approved. When we consider that the waste rock pile will effectively increase the surface area of arsenic containing materials (both in the pile and pit) the levels within the project area are only going to worsen, especially when exposed to the elements.

Roche (et. al., 2017) notes that, “[d]eclining water quality is an example of a risk that is often undervalued, and yet it can have a considerable impact, especially for indigenous, agricultural and/or subsistence communities that rely on healthy aquatic ecosystems as a food source and to support agriculture.”²⁹ Many of our harvesters are subsistence harvesters (as noted above and in previous consultation reports), acquiring traditional foods and water from the local and regional project areas. If the water quality declines, so will the quality of harvestable resource, which will in turn adversely affect their health. During our December engagements, we were told that if hunters, trappers and fishers are told not to consume traditional foods, in the event of environmental contamination, many will disregard the advisory, because many have no other options for putting protein on the table at mealtime. Furthermore, land and resource usage are a part of Mi’kmaq life.

Álvaro Fernández-Llamazares (et. al., 2020) found through their work that “[m]ost health impacts documented among [indigenous peoples] are mediated through the consumption of polluted water (Huseman and Short 2012; Dudarev et al. 2013; Bradford et al. 2016) and food (Bordeleau et al. 2016), including wild foods obtained through hunting (Cartró-Sabaté et al. 2019), fishing (Marushka et al. 2017), and gathering (Strand et al. 2002). Because [indigenous peoples]

²⁹ Roche, C., Thygesen, K., Baker, E. (Eds.) 2017. Mine Tailings Storage: Safety Is No Accident. A UNEP Rapid Response Assessment. United Nations Environment Programme and GRID-Arendal, Nairobi and Arendal, page 47.

often eat animal parts where pollutants accumulate (e.g., fatty tissues), their exposure is higher than among non-indigenous groups who discard these parts.”³⁰

Further to the point above about traditional food consumption being a part of Indigenous/Mi'kmaq ways of living, “[t]here are indirect health impacts of pollution through [indigenous peoples] food systems. For example, pollution can result in fear of consuming traditional wild foods (Turner and Turner 2008; Baker 2017), and the decline in game availability due to pollution can foster increased reliance on nutrient-poor and expensive market foods, often increasing the risk of malnutrition and chronic diseases (Young et al. 1992; Howard et al. 1999)... Environmental pollution impacts both material and nonmaterial cultural dimensions of [indigenous peoples] ways of life (Pufall et al. 2011; Alonzo et al. 2016), including their knowledge systems (Boischio and Henshel 2000; Yakovleva 2011).”³¹ Taking away a significant portion of nearby Crown lands could contribute to the loss of traditional knowledge and the inter-generational transfer of knowledge regarding harvesting practices, from older generations to the youth. If the project were to be approved and these losses occurred, we would be ignoring the recommendations of the Truth and Reconciliation Commission (TRC). The TRC was established to address the legacy of abuse and cultural loss that residential schools left behind. In a time where the preservation of culture, heritage and tradition is a priority, the proposed Beaver Dam mine could work against these initiatives.

Mental Health Impacts

During the community engagement activities in the spring of 2021 (for the Beaver Dam Consultation Report) and the sessions held in December 2021, the mental health impacts associated with loss of land and livelihood were brought up by Millbrook’s eastern shore band

³⁰ Álvaro Fernández-Llamazares, María Garteizgogeoasoa, Niladri Basu (Et. Al.). (2020). “A State-of-the-Art Review of Indigenous Peoples and Environmental Pollution,” *Integrated Environmental Assessment and Management*, vol. 16 (3), pg 324-341.

³¹ Ibid.

members. The impacts raised include (1) emotional impacts such as spite and frustration, (2) loss of space to stay active and healthy and (3) the sensory impacts of the project.

The first concern, about the emotional impacts have to do with the resentment that will be felt if the project is approved. McManus (2014) discusses in depth, the relationship that Indigenous peoples have with the land. When faced with the loss of land access, or contamination, Indigenous peoples experience "ecological grief." "People feel grief, loss and anger when destruction affects their environment and their sense of place. These impacts are rarely captured in impact assessments, existing as very real but unacknowledged externalities (McManus et al. 2014)."³² As previously mentioned, a big part of what makes the area desirable for people to live is the fact that it is so bountiful and quiet. If these qualities are disturbed, the residents will experience resentment toward the powers that be, in turn adversely affecting their mental health.

The second concern, regarding loss of space has to do with the intersection of physical activity and mental health. If the project is approved and band members are no longer able to access certain areas that they historically have been able to use at their leisure, they will not be able to stay physically active. There are no fitness centres in Beaver Dam, so most people stay active by partaking in harvesting, hiking the trails, swimming in the lakes, snowshoeing, etc. Community members are concerned that their mental health will deteriorate if they are not able to continue using the lands.

The mental health effects associated with the project's sensory impacts have to do with the fact that the residents have grown accustomed to the quiet pristine location, which would change in terms of noise, light, air quality and seismic activity. Community members mentioned that the changes in the Beaver Dam area could affect quality of sleep and perceptions of safety. The most commonly cited safety concerns had to do with vehicle interactions, because of the size of the company trucks and the frequency at which they will be travelling in each direction. There

³² McManus, P., Albrecht, G. and Graham, R. (2014). Psychoterratic geographies of the Upper Hunter region, Australia. *Geoforum*, 51, pp. 58-65.

are always safety concerns when it comes to operating a motor vehicle, but the stakes are higher when you share the roads with dump trucks. Sensory concerns are in some ways tied to resentment, because the sense of danger would stem from the presence of the mine and its operations.

Safety, Justice & Security

Perceptions of danger was identified in the previous section as a factor that could adversely affect mental health. This section aims to provide some information about the status of available services and infrastructure in or around the eastern shore communities as they apply to safety, justice and security.

The Beaver Dam reserve is not densely populated and relies upon services located in other communities, predominantly in Sheet Harbour. When it comes to emergency response services, Beaver Dam is largely serviced by the fire department, RCMP and emergency health services (EHS) in Sheet Harbour, which has its own hospital (Eastern Shore Memorial Hospital) and RCMP detachment. Our occupational health and safety officer wrote to the province's EHS department to obtain accurate response times for each of the three emergency services listed above, but we have yet to receive a response. During our December engagements, our band members informed us that, across the board, response times for the fire department, police and ambulance were between 45 minutes to an hour and a half. This was based on recent calls made for emergency services in Beaver Dam. They said that if the Sheet Harbour RCMP detachment is unable to attend a call, they may dispatch officers from other jurisdictions. Likely in the Halifax/Dartmouth area. Similarly, with ambulances, they are at the mercy of the Eastern Shore Memorial Hospital's availability. Community members mentioned that there are medical professional shortages in the area, which make it hard to get swift emergency health services to Beaver Dam.

If the project is approved, it is recommended that the Proponent and regulator consider improving emergency services in the area by establishing a satellite emergency response team located in Beaver Dam. This could be housed in the footprint of the mine itself. The rationale for this recommendation is that there will be increased probability of workplace accidents and vehicle collisions with hauling trucks that could necessitate immediate emergency response services, rather than waiting 45-90 minutes for assistance.

Employment with Atlantic Gold (St. Barbara)

When Millbrook started meeting with Atlantic Gold Corp. back in 2015-2016, the company had discussed how the project will breathe new life into the economically depressed eastern shore communities. The job creation aspect has been emphasized as a positive aspect of their work. During our last round of community engagement (December, 2021) we circulated a survey that asked band members and community members if they would consider working for the Proponent, to get a sense of how many Millbrook residents could benefit from these opportunities. Nearly 40 surveys were completed and only 1 person said that they would work for the company, with the caveat that they would only work there to make sure that “they are doing things proper” and that they are doing things “to keep the environment safe.” That is 2.6% of the overall participants. Participants cited their opposition to the work as the reason they would not seek employment, despite the lack of employment opportunities in the area.

The United Nations Environment Programme (UNEP) compared the financial risks and rewards associated with mining, noting that “[t]he highest financial rewards go to international staff, financiers and investors, with the level of rewards to government and local staff dependent on tax schemes and wage levels. In contrast, non-financial risk to local staff, communities and the environment, for example, receives little or no reward.”³³ With little to gain, other than short-term

³³ Roche, C., Thygesen, K., Baker, E. (Eds.) 2017. Mine Tailings Storage: Safety Is No Accident. A UNEP Rapid Response Assessment. United Nations Environment Programme and GRID-Arendal, Nairobi and Arendal, www.grida.no

employment, our band membership is not willing to accept the risks that come with open pit mining.

Conclusion

Millbrook First Nation has a fiduciary responsibility to its band membership to act in the best interest of their health and well-being. The community as a whole (Beaver Dam, Sheet Harbour, Millbrook and Cole Harbour) agrees that the proposed Beaver Dam mine is not in the best interest of the residents of Beaver Dam I.R. and the surrounding area. We are both the nearest community and nearest *Indian* reserve. Due to public outcry, we oppose the Beaver Dam mine project.

Despite the proposed “alternative harvesting areas,” we see no viable alternative to harvesting in Beaver Dam that ensures the health and bounty of wild game. We see no path forward that guarantees the preservation and continuation of our traditional land use practices, by means of inter-generational knowledge transfer. We see no scenario where the Beaver Dam mine does not adversely affect water quality and food security for our people.

We recognize that the nature and scope of Crown consultation in Canada is, at its core, implementation based. Meaning, it is not permission-based – we have no power to stop the project from being approved. We do hope, however, that the information contained in this report shows how our concerns are not fully satisfied and that we are not willing to shoulder the burden of environmental degradation. Our community has experienced a long history of decision making that has resulted in the placement of various pollution generating sites in our back yards – in all reserve land bases. It is our hope that the powers that be acknowledge this, by choosing the value of Indigenous ways of life over short-term economic benefits. We believe that Indigenous peoples are more than a “valued component” of consultation (like species at risk and wetlands) that need to be evaluated. We are a level of government who should be consulted and engaged with meaningfully and respectfully. The only path forward that we see is one that agrees that “the said

Tribe of Indians shall not be hindered from but have free liberty of Hunting and Fishing as usual."³⁴

A path forward in peace and friendship.

³⁴ Treaty of 1752.