

# The Town of MOUNT CARMEL- MITCHELLS BROOK- ST. CATHERINE'S



## BACKGROUND REPORT to the Municipal Plan, 2019-2029





Table of Contents

<b>1.0</b>	<b>INTRODUCTION</b> .....	<b>1</b>
1.1	Mount Carmel-Mitchells Brook-St. Catherine’s Planning Area .....	1
1.2	History and Geography .....	2
<b>2.0</b>	<b>DEMOGRAPHICS AND ECONOMY</b> .....	<b>5</b>
2.1	Demographics .....	5
2.2	Labour and Income .....	8
<b>3.0</b>	<b>LAND USE</b> .....	<b>11</b>
3.1	Residential Land Use .....	11
3.2	Employment-Generating Land Uses .....	13
3.2.1	Commercial Land Use .....	13
3.2.2	Mixed Land Use .....	13
3.2.3	Tourism-oriented Land Use .....	14
3.2.4	Industrial Land Use .....	15
3.3	Public/Institutional Land Use .....	15
3.4	Conservation Land Use .....	16
3.5	Rural Land Use .....	17
3.6	Provincial Government Interests .....	17
<b>4.0</b>	<b>PUBLIC SERVICES</b> .....	<b>20</b>
4.1	Governance .....	20
4.2	Services .....	20
<b>5.0</b>	<b>COMMUNITY GOALS: Integrated Community Sustainability Plan</b> .....	<b>21</b>
	<b>APPENDIX A: ILUC REPORT #1724</b> .....	<b>24</b>

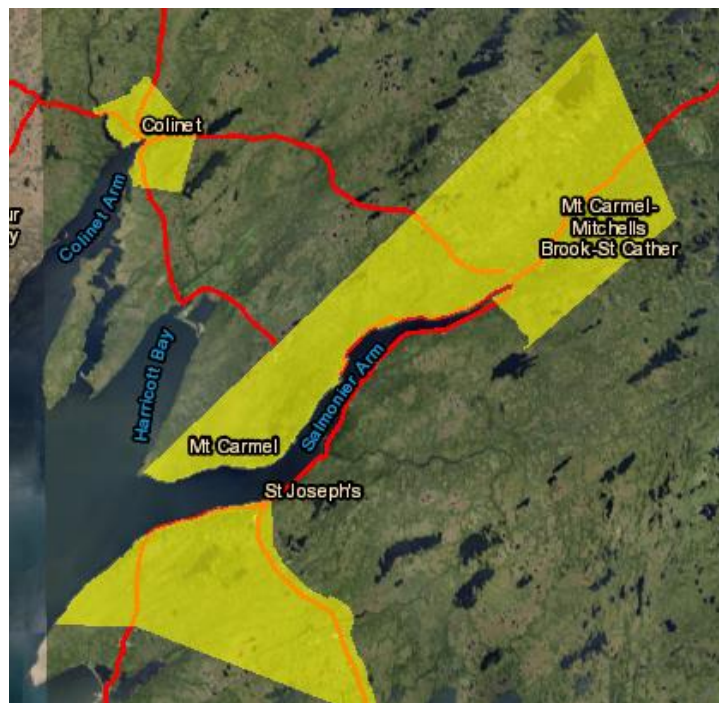


## 1.0 INTRODUCTION

### 1.1 Mount Carmel-Mitchells Brook-St. Catherine's Planning Area

In 2018, the Town of Mount Carmel-Mitchells Brook-St. Catherine's Town Council initiated the preparation of a Municipal Plan under the Urban and Rural Planning Act, 2000 using funds available under the Gas Tax Agreement.

The Town submitted a proposed Planning Area Boundary (PAB) to the Department of Municipal Affairs and Environment. This proposal was sent to an internal Interdepartmental Land Use Committee (ILUC) to ascertain provincial interests. The resulting ILUC report #1724 indicated that the PAB is subject to conformance with the conditions outlined in the report (see Appendix A). Discussions between the Town and Department continue regarding interpretation of the PAB; in the meantime, the map below shows the current Town municipal boundary and the boundaries and the nearest communities of Colinet and St. Joseph's.



The following background report is not intended to be a comprehensive history, but rather to give a profile of the historical character of the community and the issues and

developments in the past 10 (ten) years that provide an indication of the Town's future needs.

## **1.2 History and Geography**

St. Mary's Bay is the most southern and eastern of Newfoundland's major bays. Located on the southern shore of the Avalon Peninsula, it is the heartland of the Irish Newfoundlanders, who live all along its shores. Like most Irish Newfoundlanders, area residents trace their ancestry to County Waterford, County Wexford, County Kilkenny, south County Tipperary and east County Cork. In addition to being Irish, the region is also overwhelmingly Roman Catholic.<sup>1</sup>

Generally, St. Mary's Bay is a rural area. The original economic mainstays were fishing (cod and herring) and forestry. Most households had gardens and fields to grow their own food locally. Most Irish emigrants arrived between 1750 and 1830 from strongly Irish-speaking counties and the use of the Irish language in Newfoundland was closely tied to the preservation of Irish culture. That culture included feast days, holy wells, games, mumming, poetry and music.

As the permanent population increased during the early 19th century, public interest in access to education also grew. Between 1833 to 1939, Bishop Fleming went to Galway, Ireland and got the assistance of the Presentation of the Blessed Virgin Mary and the Sisters of Mercy to start schools. Their work formed the basis of Catholic and inter-denominational education for the next century and a half.

Historical information about the area is not readily available for the next period of time; however, a publication by Jespersen Press in 1998 entitled, 'By Wise a Prudent Measures' by Melvin Baker and Janet Miller Pitt indicates that this area became a leader in innovative environmental and economic experiments between the 1930's to 1950's. Up until the '30's, residents were subject to the 'Three Mile Limit' in terms of harvesting inland, and the result indicated an urgent need for forest management to prevent

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<sup>1</sup> Wikipedia

complete devastation of the forest. At that time, the road from Holyrood to St. Mary's Bay was a snaking, gravel road that was not always passable year-round. Around 1935, the area between Salmonier Line/Placentia/Whitbourne and Holyrood roads was under consideration for a national park to provide recreational opportunities for residents and lower-income tourists as the area was rich in fish and game. To help employ young, single unemployed men from St. John's, a camp was set up to start thinning the forest in the area (modelled after the 'New Deal' in the U.S.) While the men were in training, they received 20-cents per day and were nicknamed the '20-cent boys'.

Soon after that, the Forestry Service set up a government-owned logging and sawmill operation in the Back River watershed (1935-40). The operation employed 300 men in the summer and 100 in the winter. At the time, it was the only large, powerful turbine-driven mill in existence on the Island. As the logging operation scaled back due to changing market and labour issues, the Department focussed its efforts on establishing a central tree nursery. During this same time, agricultural efforts were also supported by the Commission Government, but more so in neighbouring communities, such as Haricot, which had more suitable soil than that found in the Mount Carmel area.



Between 1938-52, the tree nursery operated on the Goodfellow Block (not far from the St. Catherine's Academy) and it became "...an integral part of the local economy and history

of the St. Catherine's, St. Joseph's, Mount Carmel and St. Mary's Bay area....The closure of the National Tree Nursery at Back River was bitterly opposed, especially those who had remained with the project from its earliest days as a logging/relief scheme. For the local people, the site problems clearly were outweighed by the significant and long-term investment in infrastructure and jobs....and its loss still rankled, even over 40 years after its closure....”<sup>22</sup>

Current businesses and employment are discussed further in Section 3.2. To this day, both the fishery and forest resource industries are still part of the economy of the area, and the proximity to St. John's continues to influence the future of the community. In particular, the increased mobility of the population has created more options for local residents as the travel time of Mount Carmel-Mitchell's Brook-St. Catherine's to St. John's (84 km) is 1 (one) hour (and the St. John's Airport) and to Holyrood (37 km) or ½ hour (with regional services).

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<sup>22</sup> Baker, Melvin and Janet Miller Pitt. 'By Wise and Prudent Measures: The Development of Forestry on the Salmonier Line: Jespersen Press. 1998.



## 2.0 DEMOGRAPHICS AND ECONOMY

### 2.1 Demographics

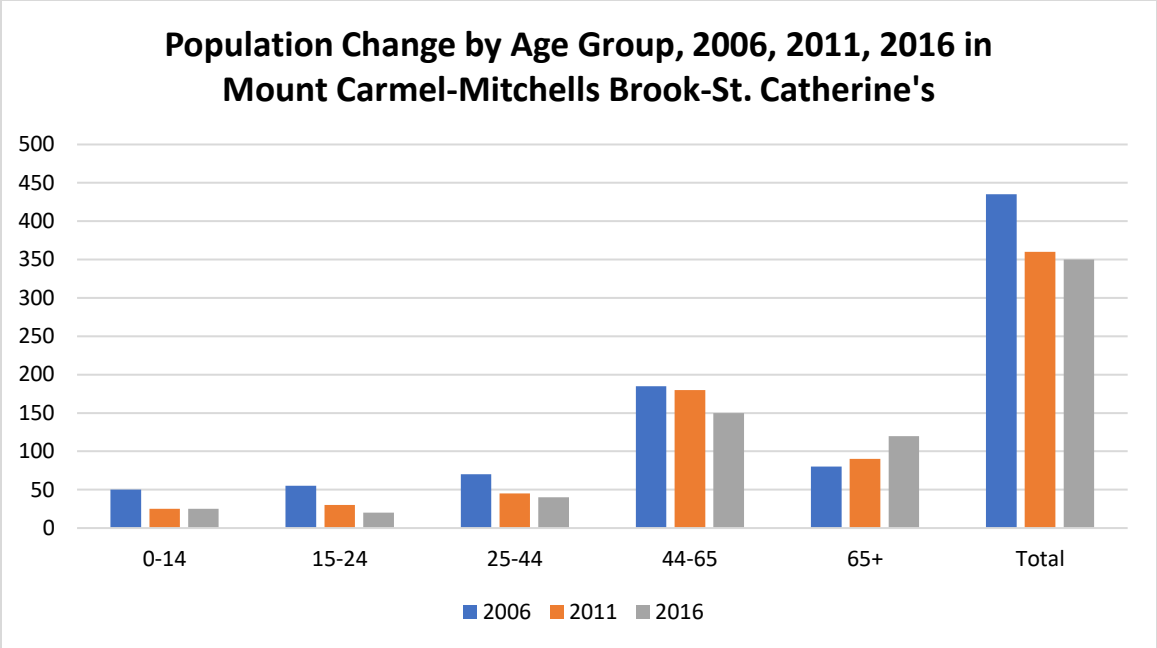
The communities were first recorded with 78 inhabitants in the 1845 census and referred to collectively as Salmonier (which also included St. Joseph's, New Bridge and Forest Field). By the time the area had been divided into Salmonier North and Salmonier South in 1901, the population had rapidly expanded to a total of 761 settlers, 388 of whom were residing in the north (Mount Carmel, Mitchell's Brook and St. Catherine's). In 1911 part of Salmonier North was renamed Salmonier, which was divided into Mount Carmel and Mitchell's Brook by 1935. In 1922, the settlement known as the Head of Salmonier became St. Catherine's. After 1935 the population of the three communities continued to rise until the 1960's, after which time it remained relatively stable between 650 and 750.<sup>3</sup>

Over the past 10 (ten) years, the population of the Town of Mount Carmel-Mitchells Brook-St. Catherine's has decreased 20%, from 435 to 350 individuals (85 individuals). Most of this occurred during the period between 2006 and 2011 when the economy in the Province overall was thriving. This is reflected in the change in age groups over this time, as the 25-44-year age group, which represents the largest mobile work force, shows the greatest decline as people perhaps move away for work reasons. What is interesting, though, is the fact that the decline in this group slowed between 2011-16. At the same time the number of children between 0-14 stabilizes as well. In this same period, the 44-65-year old group shows a greater decline. Like most other rural Newfoundland communities, the seniors (65+) is growing.

Age Group	2006	2011	2016
0-14	50	25	25
15-24	55	30	20
25-44	70	45	40
44-65	185	180	150
65+	80	90	120
<b>Total</b>	<b>435</b>	<b>360</b>	<b>350</b>

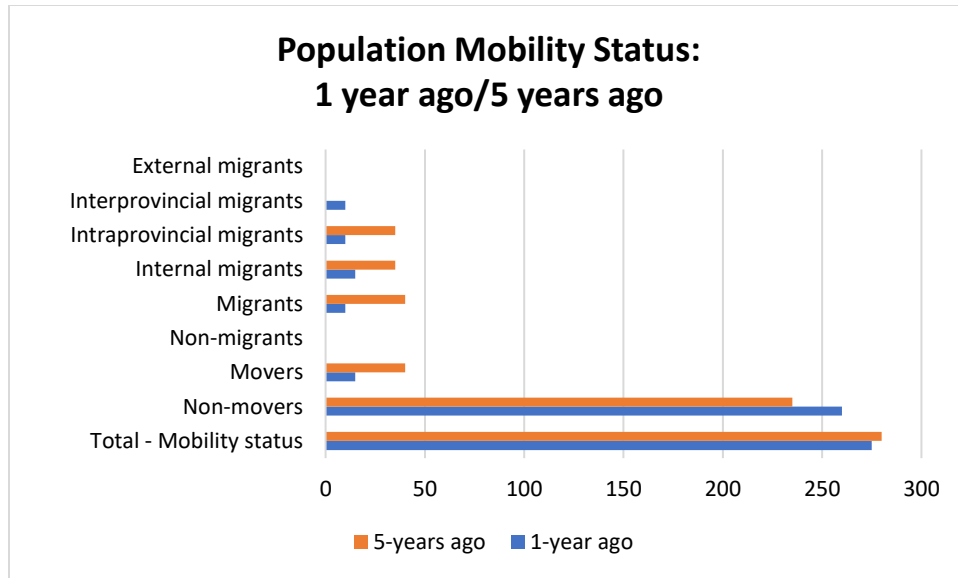
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<sup>3</sup> Avalon Gateway Regional Economic Development Inc. quoted in the Integrated Community Sustainability Plan for the Towns of Admiral's Beach, Colinet, Mount Carmel (Mount Carmel-Mitchell's Brook-St. Catherine's) and St. Joseph's, 2010).



These trends might indicate that the area is becoming more desirable for raising a family as the millennials make choices about where they want to live. As well, there is a question as to whether the growing number of seniors want to have the opportunity to either age-in-place by staying home with supports or having the choice to live in a local senior’s facility.

The movement of the local residents is captured in the ‘mobility status’ data provided by the 2016 Census. In the 5-year period between 2011-2016, the Census indicates that the mobility of residents has decreased significantly. This may also be due to the lack of work opportunities in other provinces with the wind-down of Fort McMurray, as well as the completion of major construction projects elsewhere in the province, i.e., Muskrat Falls.



To provide a regional context of the St. Mary's Bay area, the population has declined by about 13% overall, as shown on the Table below. 1):.

<b>Communities within St. Mary's Bay - Population trend in the last 10 years</b>		
<b>Communities</b>	<b>2006</b>	<b>2016</b>
Point Lance	119	102
Branch	309	228
North Harbour-Harricot	510	513
Colinet	165	80
MC-MB-SC	438	349
New Bridge (O'Donnell's & Mall Bay)	561	435
St. Joseph's	144	115
Admirals Beach	185	135
Riverhead	220	185
St. Mary's	482	347
Point La Haye-Gaskiers	302	232
St. Vincent's-St. Stephen's-Peter's River	363	313
St. Shott's	109	66
<b>St. Mary's Bay area:</b>	<b>5913</b>	<b>5116</b>

However, during that same period, Holyrood grew by 23% (2,463) and Conception Bay South grew by 19% (26,199). Also, the ‘cottage area’ of Deer Park, which is now the Local Service District of Deer Park/Vineland Road, has about 900 cottages and homes, some of which are lived in year-round. This provides an indication of potential future development pressures for the Town of MC-MB-SC.

The 2016 Census identified about 160 households in the Town and of these, 115 are considered ‘census-family’ households, 70% without children. The average size of the census family in 2016 was 2.4 persons (compared to the Province = 2.7). Of the 45 non-census family households, 78% are one-person households.<sup>4</sup>

**Census family is defined** as a married couple and the children, if any, of either and/or both spouses; a couple living common law and the children, if any, of either and/or both partners; or a lone parent of any marital status with at least one child living in the same dwelling and that child or those children.

**Non-census-family** households are either one person living alone or a group of two or more persons who live together but do not constitute a **census family**.

## 2.2 Labour and Income

Census 2016 identified about 100 individuals in the labour force for the Town of MC-MB-SC, yet 120 individuals worked either part-time or full-time. Most of these worked part-time (60%) contributing to the average weeks worked of 33.5 weeks. Almost all were employees (as compared to self-employed).

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<sup>4</sup> Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released November 29 2017.

From an educational perspective, 46% of the residents have a postsecondary certificate, diploma or degree; Of the other 54%, 23% have high school or equivalent certification and 30% have neither resulting in an overall, a lower skilled workforce.

Not surprisingly, the household income level is lower than the rest of the Province as shown below in a comparison of median income levels (median = half the household earn more/less than the median).

<b>Median Income of Households, 2015</b>		
	<b>MC-MB-SC</b>	<b>NL</b>
Median total income of households in 2015 (\$)	\$63,360	\$74,676
Median <i>after-tax</i> income of households in 2015 (\$)	\$58,240	\$64,504

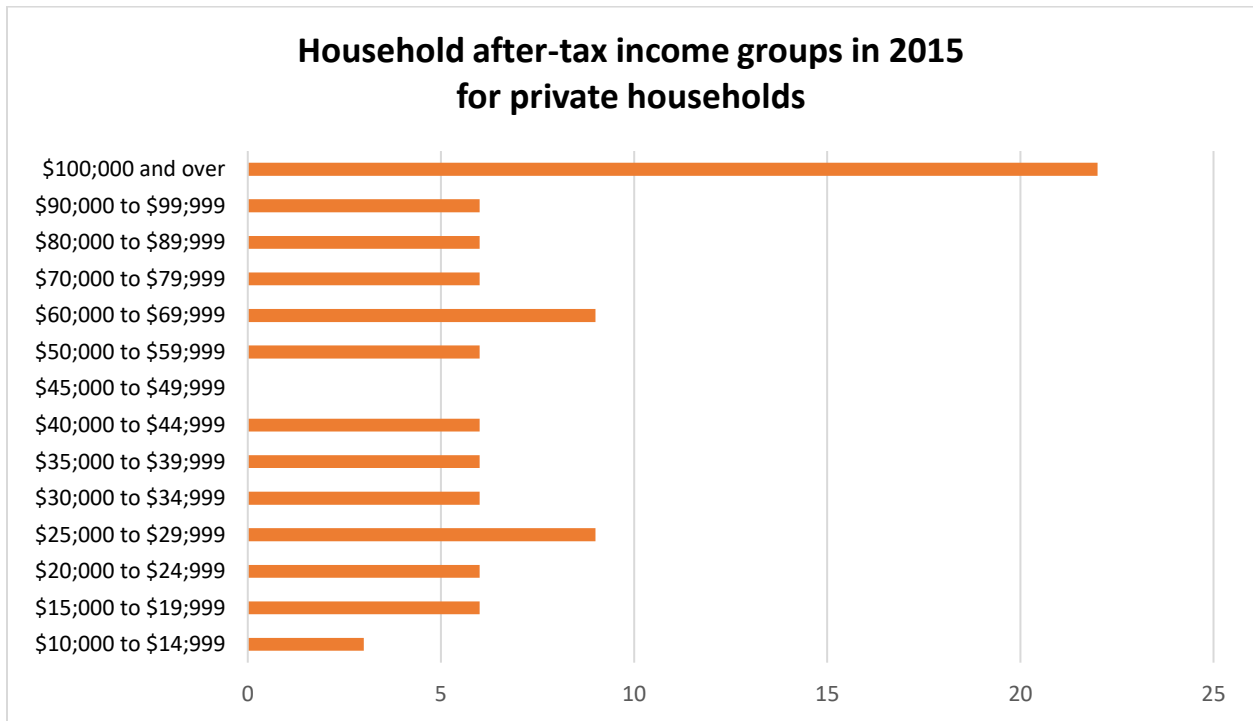
Most income (77%) is considered market income primarily from employment income, while 23% of income is from Government transfers, such as, old age pensions, unemployment benefits.

<b>Composition of total income in 2015 of the population aged 15 years and over in private households (%)</b>	
	<b>%</b>
• Market income	<b>76.8%</b>
- <i>Employment income</i>	56.1
- <i>Investment income</i>	20.7
• Government transfers	<b>23.5<sup>0</sup>%</b>

In terms of income distribution for the approximately 160 households in the Town:

- 44% of these households have less than \$50,000 after-tax income,
- 34% have between \$50-100,000 after-tax income; and,
- 22% have over \$100,000.

Of the approximately 160 households in the Town, the breakdown of after-tax income is shown on the following graph:



A more simplified breakdown of household after-tax income in 2016 indicates:

- 38% of the Town’s households have less than \$40,000 annual after-tax income;
- 40% of the Town’s households have between 40-100,000 annual after-tax income; and,
- 22% of the Town’s households have over \$100,000 annual after-tax income.

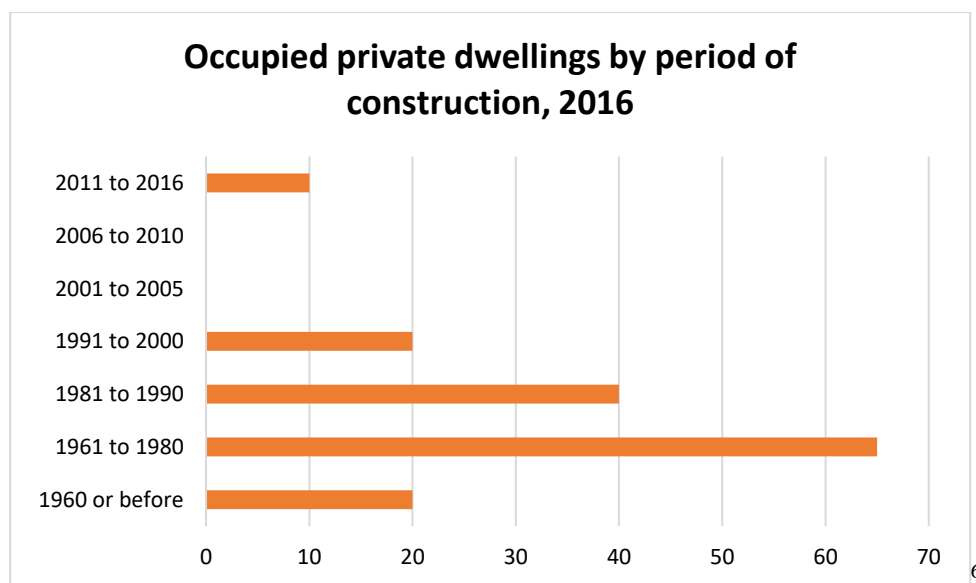
The overall lower household incomes are indicative of the aging population and fewer local employment opportunities.

### 3.0 LAND USE

#### 3.1 Residential Land Use

Notwithstanding the large rural area surrounding the community, the built-up area of the Town of MC-MB-SC is predominantly residential, mostly comprised of single-family dwellings. Of these, 90% are owned (versus rented). Most homes are built along the main roads in the Town: Provincial Route 90 (Salmonier Line), Route 91 to Colinet and Route 93 along the north side of Salmonier and turns to go via Haricot to Colinet, and the local Town road which continues past the turnoff. Needless to say, these roads follow the shoreline and many of the older homes were originally accessible by water.

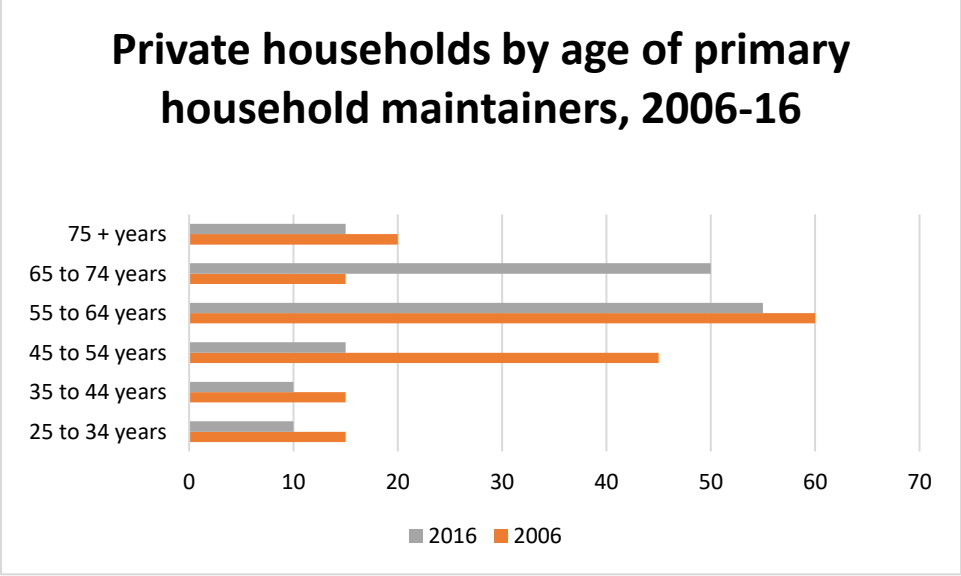
Almost 70% of the homes in the Town are over 26 years old (43% over 36 years old). There were no reported houses built between 2001-2010; however, 10 new houses were reported between 2011-16.<sup>5</sup>



<sup>5</sup> Statistics Canada. 2017. Census Profile. 2016 Census.

<sup>6</sup> Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released November 29 2017.

The age of primary maintainers<sup>7</sup> reflects the decline in population, particularly in the age 45-54-year age group which is then compensated in the 65-74-year age group. This would appear to confirm the retirement community character of the Town and emphasizes the corresponding values that need to be protected or developed for these individuals to enjoy full and healthy lifestyles in their own community.



The value of homes is significantly less than St. John’s, which also makes the area more affordable.

Value of Dwellings (\$) 2016		
	MC-MB-SC	City of St. John’s
• Median	\$150,521	\$309,631
• Average	\$172,891	\$349,753

<sup>7</sup> Statistics Canada, 2006 Census of Population, Statistics Canada Catalogue no. 97-554-XCB2006035. Statistics Canada. 2017. Census Profile. 2016 Census.



## **3.2 Employment-Generating Land Uses**

### **3.2.1 Commercial Land Use**

Due to the proximity of commercial and retail opportunities in Holyrood and St. John's, the Town currently has only three commercial enterprises providing services to the Town and surrounding area:

- Riverview Lounge;
- Gas Station and Convenience Store (junction of Route 90 & 91); and,
- Mount Carmel Castle Building Supplies (since 1976);

However, there are alternative opportunities for commercial enterprise in the form of rental housing and home businesses. Both offer valuable income to households and the issues and opportunities associated with these will be addressed in the Municipal Plan and Development Regulations.

As these existing commercial enterprises are also situated near residential areas, opportunities for expansion and the need to prevent conflict will also be addressed. Site of former commercial venture will be reviewed with the view to preserving the location for future enterprise or zoning to prevent future conflict. These sites include the former gas bar and convenience store on Route 90 and some buildings and sites further in the Town.

### **3.2.2 Mixed Land Use**

This is a zone option to be considered by the Town in areas where it is not clear whether future development should be either residential or commercial. The mixed zone allows for both to co-exist either side-by-side or on different levels, i.e., commercial at ground level and residential above. Potential sites for mixed land use will be explored at the public consultations.

### 3.2.3 Tourism-oriented Land Use

The Town is located on the highly popular 'Irish Loop' which starts in St. John's as Route 10, encompasses the entire Southern Shore, and becomes Route 90 which links back to the Trans Canada Highway and back to St. John's or offers the opportunity to go to Cape St. Mary's. The Town already has several major attractions close by: Salmonier Nature Park and 'the Wilds' Golf Course (18-hole), just ten minutes away. Two Ecological reserves are within approximately 1 hour's drive: Cape St. Mary's and Mistaken Point.

The Salmonier Country Manor or 'the Convent Inn'- a 7 suite Bed and Breakfast and a Multipurpose (Dining) room with seating for 45. Originally a Convent, the Manor has been elegantly converted and many of the Convent features have been preserved, and are visible throughout the Manor.



Local artist David Sorenson also has a gallery at Sorensen Art Gallery at Rainbow's End Store (430 Main Road).

The Town is next to a popular salmon river, Salmonier River and the picturesque flats particularly from the home of artist Philip Pratt. A former senior home offers an opportunity for tourist accommodation near the river.

Additional opportunities for tourism-related uses needs to be explored along the busy highway and taking advantage of the scenic viewpoints of the Town.

### 3.2.4 Industrial Land Use

Currently there is only one industrial location in the Town in the vicinity of the wharf. Tug boats and barges are stored on site or moored in the bay and some fishing boats are tied to the well-worn dock. The area needs to be assessed for future expansion and also to ensure that conflict with adjacent land uses is minimized.

### 3.3 Public/Institutional Land Use

There are several public/institutional sites in the Town including:

- The Good Shepherd Parish St. Mary's Bay (Roman Catholic Archdiocese of St. John's) which hosts biweekly services (shared with St. Joseph's, St. Mary's, Admiral's Beach, North Harbour, St. Vincent's);
- St. Catherine's Academy (about 115 students) is located in Mount Carmel on the Salmonier Line, St. Mary's Bay, serving the eleven communities of Mount Carmel, St. Catherine's, Mitchell's Brook, Colinet, Harricott, St. Joseph's, O'Donnell's, Admiral's Beach, New Bridge, Forest Field and North Harbour.
- Mount Carmel Fishermen and Recreation Committee - wharf development; and,
- Town Hall and Fire Department; and,



The town of Mt. Carmel-Mitchell's Brook-St. Catherine's purchased this war monument itself, after it was declined grants from the federal government. (CBC)

- The Community Garden: The Mount Carmel Gathering Place – St. Mary’s Bay North Regional Development Association partnered with the Town of Mount Carmel and the Mount Carmel 50 Plus Club to develop a community garden and gathering space. Some funding for this initiative was obtained from the Community Development Fund as a grant which aims to foster healthy communities.

Another initiative in the community is the ‘Tree of Life Sustainability Project and Retreat Centre’. This project would be defined as a social enterprise as it in a not-for-profit organization that operates as eco-lodge supporting private yoga, meditation and addiction recovery retreats in a nature-based setting.

### 3.4 Conservation Land Use

The Conservation designation is usually expressed by two types of zones:

- An ‘environmental protection’ zone: shorelines around bodies of water, wetlands and floodplains which are all sensitive areas with ecological importance which would include the shoreline of Salmonier Arm and the main rivers in the community (Back River); and,
- An ‘open space, parks and trails’ zone would be applied to trails and recreation areas where some development is anticipated to facilitate outdoor recreation activities.

In recent years, the Nature Conservancy of Canada (NCC) as acquired land within the community. NCC have created a ‘Salmonier Nature Reserve’ which is a collection of three properties, totalling 437 acres (177 hectares). The NCC emphasizes the importance of the Avalon region forest for the protection of boreal forest lichen – a globally rare species.

“The Salmonier River is known, by locals and visitors alike, for its large runs of wild Atlantic salmon. By conserving the land along the river banks and uplands, we can

protect the health of the river system so it can continue doing what it does well — hosting local wildlife as well as anglers from around the world. Hunting, fishing and access of historical ATV trails remain permitted on NCC lands in the Salmonier area.”<sup>8</sup>

### **3.5 Rural Land Use**

There are large areas of the community which are inaccessible by publicly maintained roads which are suitable for resource uses, such as, agriculture and forest management including silviculture and harvesting, both commercial and domestic. Other uses include remote cottages, home gardening, and trails.

### **3.6 Provincial Government Interests**

The ILUC Report #1724 provided information regarding key provincial government interests that must be accommodated in the Municipal Plan. Specific land use interests that can be incorporated into the Plan and Development Regulations are summarized in this section (in no particular order), as follows:

1. Newfoundland and Labrador Hydro: The main power line intersects the town and access to the easement must be protected and development controlled;
2. Land Stewardship Division:
  - a. Most of the Town west of Salmonier Line falls within the Markland Agricultural Development Area;
  - b. the Division also noted that the Town should protect the use of an Agricultural lease (see map below) and any other existing agriculture properties -including small scale home gardens. These must not be negatively impacted and allowed to expand where permissible.

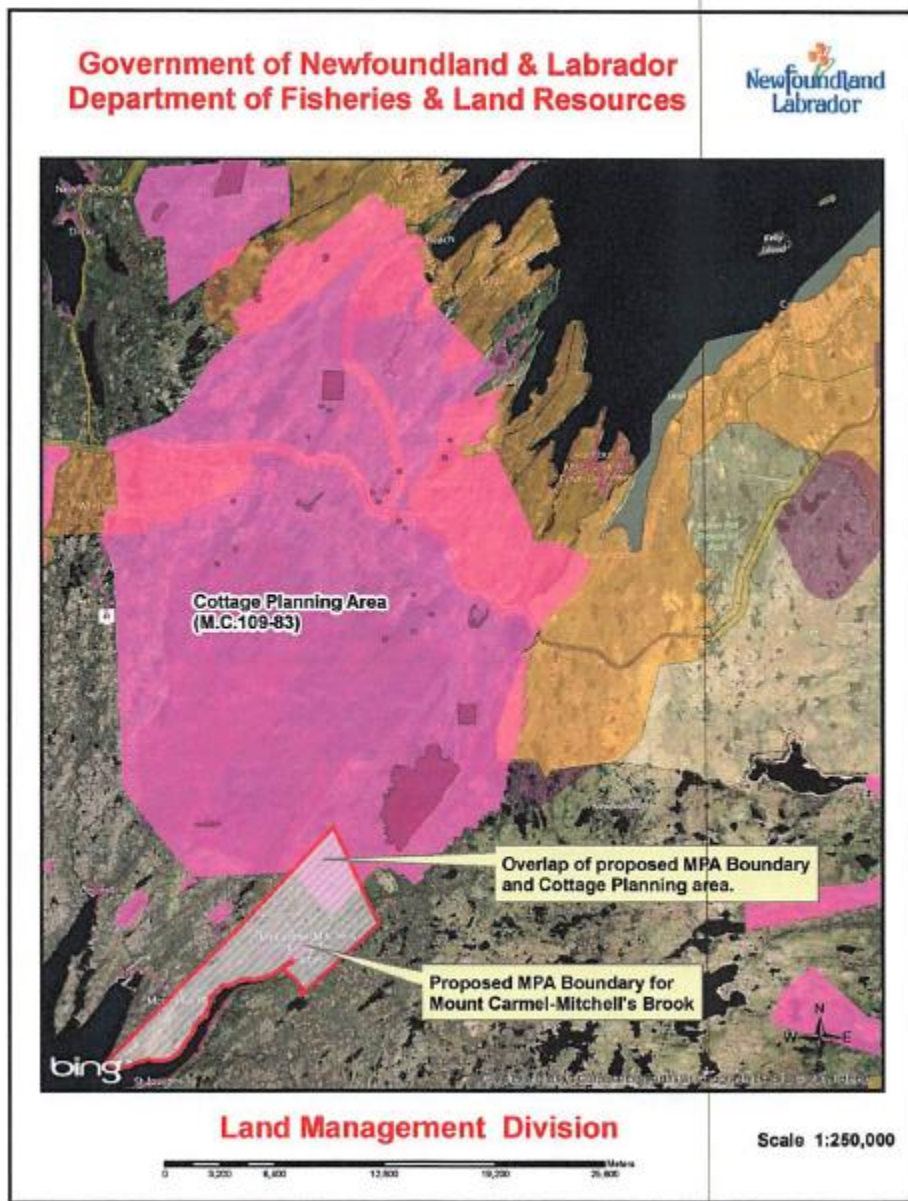
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<sup>8</sup> NCC website: <http://www.natureconservancy.ca/en/where-we-work/newfoundland-and-labrador/featured-projects/salmonier-line.html>



3. Mineral Lands Division: One quarry permit held by the Department of Transportation and Works at present located off Route 93 near the edge of the municipal area boundary across from the closed Dump Site.
4. Wildlife Division:
  - a. Encourage consideration of the Eastern Habitat Joint Venture program where the Division seeks to work with municipalities in the development of municipal plans for habitat protection;
  - b. Encourages consultation with wildlife during vegetation clearing to ensure appropriate mitigation measure are species habitat requirements and avoiding accidental takes, for example, yellow birch must be avoided as they function as hosts for some o lichen species.
  - c. Due to the presence of rare plant habitat along the entire Salmonier River, it is recommended to implement a wider undisturbed buffer (measured from the high-water mark) standard 30m;
  - d. Consider landscape and habitat connectivity, including:
    - i. Maintaining appropriate riparian buffers, (natural wetlands and waterbodies-ponds, rivers, creeks etc.). A 30 natural vegetated green belt could be a standard requirement type of land use activity; wider green belts are suggested near more intense land uses such as farms;
    - ii. To maintain landscape connectivity, green belts should be retained, as habitat patches to create travel corridors, the Development Regulations could incorporate a minimum percentage of trees to be retained;
    - iii. Vegetation clearing should be done outside the May 01 to July 31 period (note that some raptors start breeding in March) as disturbance can be most detrimental during that sensitive breeding/ young rearing period.

5. The Land Management Division identified that a portion of the northerly section of the Tow is located within a cottage planning area. This cottage area is a high demand area that was designated in a Minute in Council (M.C.) 109-83.



As well, the Land Management Division implemented a 'Community Infill Limit' in order to prevent uncontrolled ribbon development along roads. This measure will be removed once a Municipal Plan is in place for the Town.

6. Water Resources Management Division: Listed requirements under the authority of the Water Resources Act, SNL2002 to be included in the new Town Development Regulations;

7. Geological Survey of Newfoundland and Labrador:
  - a. Coastal erosion: Based on an average recession rate of 15 cm per year and a 100-year life span for a structure, we recommend a setback of at least 30m (twice the average erosion rate times 100 years) from the cliff top to any planned residential or commercial development;
  - b. Shorelines: Based on the potential future impact of sea level rise and storm surge, areas below the present 2 m contour are considered to be highly vulnerable to coastal flooding. Development within this area should be restricted to ensure that appropriate mitigation measures are employed. These could include coastal protection measures or enhanced engineering standards, although communities may choose to remove these areas from development. Areas above the present 2 m contour may also be at risk from coastal flooding, including storm surge;
  - c. Flooding: River flood plains are those areas adjacent to modern rivers that overflow their banks during storm events or as a result of ice jams. Low-lying coastal areas may be inundated by the sea during storm surge events, especially if coastal protection (including beaches) is breached. Areas at river mouths are particularly vulnerable during river flooding during periods of unusually high tide or storm events.

#### **4.0 PUBLIC SERVICES**

##### **4.1 Governance**

The Town Council of Mount Carmel-Mitchells Brook-St. Catherine's was incorporated in 1972. The Town has a Mayor and 6 Councillors. Town staff include a full-time Town Clerk and.... *Any others?*

The Town issues development permits under the Municipalities Act, but has no development control authority yet.

##### **4.2 Services**

The Town does not have any public water or sanitary sewer services; therefore, the standards as set out by the Department of Service NL, Government of Newfoundland and Labrador are applied to all development.

The Road System for the Town consists of:

1. Three provincial highways which are maintained by the Provincial Government:



- a. Route 90 – Salmonier Line, which is classified as a Scenic Tour Loop: Irish Loop;
- b. Route 91 – Old Placentia Bay Highway to Colinet (a portion is considered a local collector road);
- c. Route 93 – to Colinet via Harricott;
- 2. Local roads consist of:
  - a. Route 93-10 – local collector road on north shore of Salmonier Arm;
  - b. Walsh Hill road (between Route 91 and Route 90);
  - c. MacDonald Drive; and,
  - d. Marrie Drive.

Waste Management is provided by the Eastern Waste Management Board.

The Town has its own volunteer Fire Department which serves only the residents within its boundaries.

Policing for the area is serviced by the RCMP Detachment in Holyrood.

A local fundraising group, the Knights of Columbus are active in the community.

## 5.0 COMMUNITY GOALS: Integrated Community Sustainability Plan

During the preparation of the Integrated Community Sustainability Plan in 2010, residents of the community completed 39 questionnaires which were very well received in the community and all had positive responses. These survey responses combined with direction from the council laid the basis for the community’s five-year outlook. Below are topics listed by pillar of top priority to the community

Pillars	Topics	Notes
Environmental	Significant Issues or Needs	Protecting Water Bodies Cleaning Marine Areas Energy Efficient Municipal Operations
	Local Assets	School and youth
Economic	Significant Issues or Needs	Supporting entrepreneurs Reducing unemployment Developing new industry Investing in roads and bridges Developing better tourism information
	Local Assets	Regional Economic Development (RED) Board
Social	Significant Issues or Needs	Youth Retention Recreation Opportunities Sharing regional information Coordinating social events for the region Improving health care facilities for the region

	Local Assets	Recreational group, council, red board
Cultural	Significant Issues or Needs	Documenting community history Preserving Community Heritage Showcasing musical heritage in the region Preserving churches and cemeteries Hosting festivals and events
	Local Assets	n/a
Governance	Significant Issues or Needs	Shared government services Creating a joint mayors committee Common regional tax structure Develop and Emergency Plan
	Local Assets	Council, RED Board

The ICSP then identified specific projects and initiatives to address these priority issues. These are presented below and edited to updated to reflect current status:

1. Cleaning up Graveyards: Explore tourism opportunities surrounding genealogy;
2. Preserving Community Heritage: Organize/Participate the Ram Pike Festival, a regional festival and also for the community to showcase its rich heritage and history;
3. Documenting Community History Project: Christopher Pratt legacy project is a tribute to the world-renowned artist who lives in the community;
4. Review Southern Avalon Tourism Association Marketing and Tourism Plan;
5. Review regional economic development plans;
6. Develop Community Specific Tourism Information and Sites;
7. Create a tourism map of the region and highlight the communities and the local attractions;
8. Explore educational and training resources to re-skill older workers;
9. Improve Council operations: Review and update official council procedures; Compile operational policy manual;
10. Develop policies and procedures regarding wharf usage and commercial Harbor travel: ownership, commercial business, staffing, upgrades and improvements and commercial use;
11. Develop an emergency plan to coordinate efforts in the event of a natural disaster;
12. Develop a Community webpage;

13. Manage waste disposal in the community by ensuring that households and businesses have the required permits and protocols in place as defined by Service NL.
14. Make Public Buildings More Energy Efficient;
15. Make recycling bins available around public buildings so the residents can participate in recycling;
16. Youth retention: To retain youth the community will need to be proactive in keeping its young people. This project will be subject to the development of the economic landscape and services for young families.
17. Development of Walking Trails: The town needs to develop a pro-active approach to the development of a network of walking trails. Previous work done regarding regional walking trails did not offer sufficient information of benefit to a Town strategy regarding community walking trails; therefore, more local work needs to be done to identify opportunities and sources of funding.
18. Develop of a playground: This project is already currently underway;
19. Baseball Field: The Town does not anticipate much use of the existing baseball field in the near future and may consider other initiatives instead, such as, using the area as festival grounds.
20. Regional audit of current resources and programs: Explore the possibility of doing a regional audit of the current resources and programs in the region to identify who is doing what and where they are doing it. This will be helpful when coordinating recreational events and also the sharing and programming of future projects.
21. Volunteer Database: Volunteering rates in the community have begun to decline. To foster new interest in volunteering a unique approach must be taken. A survey sent to the communities' members will ask them what volunteer activities they might want to participate in.

As well, the ICSP process helped communities set out a strategic vision for their towns. The following is Mount Carmel's mission statement;

*"By providing leadership and stewardship, we enable our community the opportunity to grow and develop in an atmosphere which promotes hard work, respect for others, openness, honesty, inclusion and acceptance for all."*

**APPENDIX A: ILUC REPORT #1724**

**INTERDEPARTMENTAL LAND USE COMMITTEE  
PROJECT EVALUATION**

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ILUC PROJECT #:	1724
ILUC PROJECT NAME:	MPA – Mount Carmel – Mitchell’s Brook – St. Catherine’s
PROPONENT:	Municipal Affairs
DATE DISTRIBUTED:	December 17, 2018
ILUC DECISION:	<b>APPROVED (Conditional)</b>
DATE OF DECISION:	March 01, 2019
NO REPLY:	DFO, Fisheries, Parks, Tourism, Transportation
NO CONCERNS:	Climate Change, Environment (Pollution Prevention), EA, Lower Churchill Project, NL Hydro, Parks

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**PROVINCIAL/FEDERAL GOVERNMENT AND AGENCY  
CONCERNS AND RECOMMENDATIONS**

**ARCHAEOLOGY**

- There is always the possibility that historic resources may be present. The Provincial Archaeology Office (PAO) requests that any accidental discoveries of archaeological resources be reported to this office at 729-2462.

**CLIMATE CHANGE**

- Climate change is expected to result in more precipitation and more frequent extreme weather events that may result in increased flooding, sea surge and coastal erosion. These factors should be considered when allocating land for future developments that are in close proximity to a river, floodplain or coastline.
- The Climate Change Branch (CCB) suggests that provincial climate change projections for Argientia (nearest regional site) be considered in development stages. These projections suggest that extreme precipitation events will become more intense. For example:
  - On a 24-hour basis, a 1-in-100 year storm is expected to bring 209 mm of precipitation by mid-century, an increase from the current climate’s 202 mm (4% growth); and
  - On a 12-hour basis, a 1-in-100 year storm is expected to bring 196 mm of precipitation by mid-century, an increase from the current climate’s 189 mm (4% growth).

- More information on climate data can be provided by contacting Jennifer Forristall-Prim (729-1485) or at the following link: [https://www.exec.gov.nl.ca/exec/occ/climate-data/pdf/IDF\\_Data\\_Argentia\\_2018.pdf](https://www.exec.gov.nl.ca/exec/occ/climate-data/pdf/IDF_Data_Argentia_2018.pdf).
- The CCB would also like to draw the Town of Mount Carmel's attention to recent updates (Section 9.36) of the National Building Code, which now includes energy efficiency requirements for new buildings. The Town must comply with these new energy efficiency requirements for new developments in the municipality.

**CROWN LANDS (Eastern Region)**

- Once a plan is approved, notify the Land Management Division to remove the infilling limits

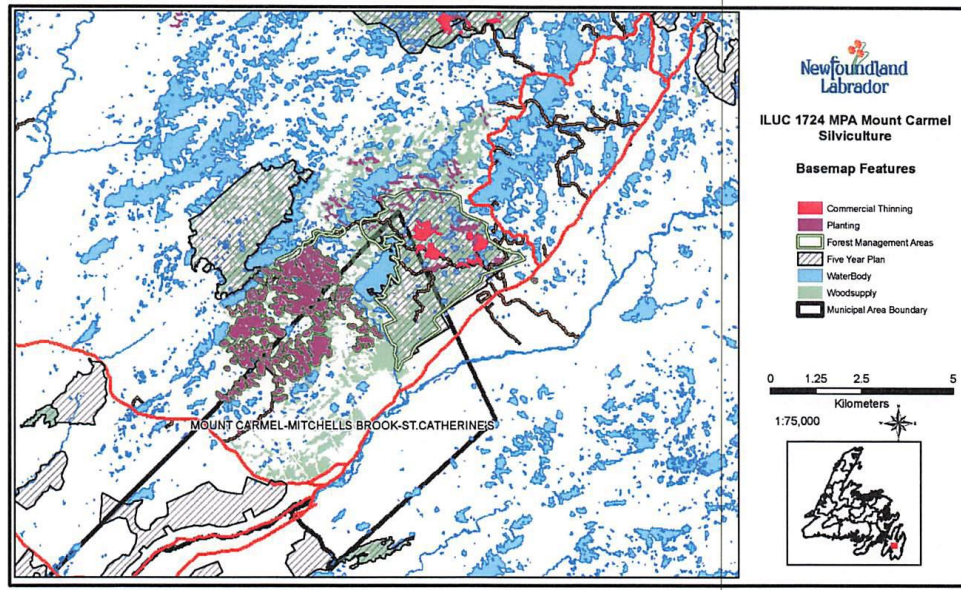
**ENERGY BRANCH**

- The main power line that intersects the town (indicated in purple below). If not already done so, Newfoundland Power should be consulted on any changes/development in the power line area.
- This project does not lie within a hydrocarbon bearing basin having oil & gas potential, it does not lie within an onshore permit/licence or lease nor is it within 100 meters of an onshore petroleum well.



## **FORESTRY**

- FLR would recommend the approval of the current municipal boundary as the municipal planning area boundary on the condition that forest harvesting, roadbuilding and silviculture activities are permitted activities. The planning area includes 2,200 ha of commercial core forest (green) that is used to support our commercial timber supply and any withdrawals would result in negative impacts on the forest industry. Also within the planning area exists almost 600 ha silviculturally treated (pink and purple) area and it is important that the forestry sector is capable of capitalizing on these investments. The area also includes vast areas of domestic cutting blocks (cross hatched) approved in the 5 Year Plan process which residents of the community rely on for home heating and building materials.
- FLR does not recommend approval of the extension to the municipal boundaries as shown for this municipal planning area. Considering the current size of the existing municipal boundary (approx. 6325ha) the forest service would suggest the existing area is a sufficient planning area for the town. Given our core forest management land base that exists in the new proposed section west of the salmonier line we would put forth that this area not be approved and remain under the management of the crown and the forest service.
- By accepting the original municipal boundary the town must agree that forestry activities will not be restricted in anyway.



### **GIS and MAPPING**

- There are currently 29 Survey Control Monuments within the Town of Mount Carmel-Mitchell's Brook-St. Catherine's municipal boundary. Under the Lands Act a surveyor may enter upon lands at any time for the purpose of making observations to or from a control survey marker. The Lands Act also provides that a person who knowingly or willfully pulls down, defaces, alters or removes a control survey marker is guilty of an offence and liable on summary conviction to a fine not exceeding \$500 or imprisonment for a period not exceeding 3 months.
- GIS and Mapping Division is required to be contacted ([GMD@gov.nl.ca](mailto:GMD@gov.nl.ca)) if works within the town have the potential of disturbing an existing Control Survey Marker. The locations of the markers can be viewed at <https://arcg.is/1rWnSC>.
- If the Planning Area is approved and it is published in the Newfoundland and Labrador Gazette, GIS and Mapping Division will need to be notified and provided with a GIS file for the area to be included in the Provincial Land Use Atlas.

### **LAND MANAGEMENT ( Agriculture)**

- The Land Management Division has reviewed the proposal submitted to ILUC by the Department of Municipal Affairs and Environment regarding the establishment of a Municipal Planning Area – Mount Carmel – Mitchell's Brook – St. Catherine's. Attached for your information is a map containing the most recent information available to the Branch showing all known agricultural land use with the proposed municipal boundaries.
- The Division's mandate includes protecting existing and future agricultural activity, small or large scale. Land and soil for agricultural development is limited within this province and its protection is vital. The proposed municipal boundary incorporates approximately 4526 hectares of the Markland Agricultural Development Area (ADA). The Agricultural Land Section is satisfied with the current planning area provided that existing agriculture properties -including small scale home gardens- must not be negatively impacted and allowed to expand where permissible. The attached map illustrates the following areas of concern:
  1. There is currently one Agricultural Lease within the proposed municipal boundary.

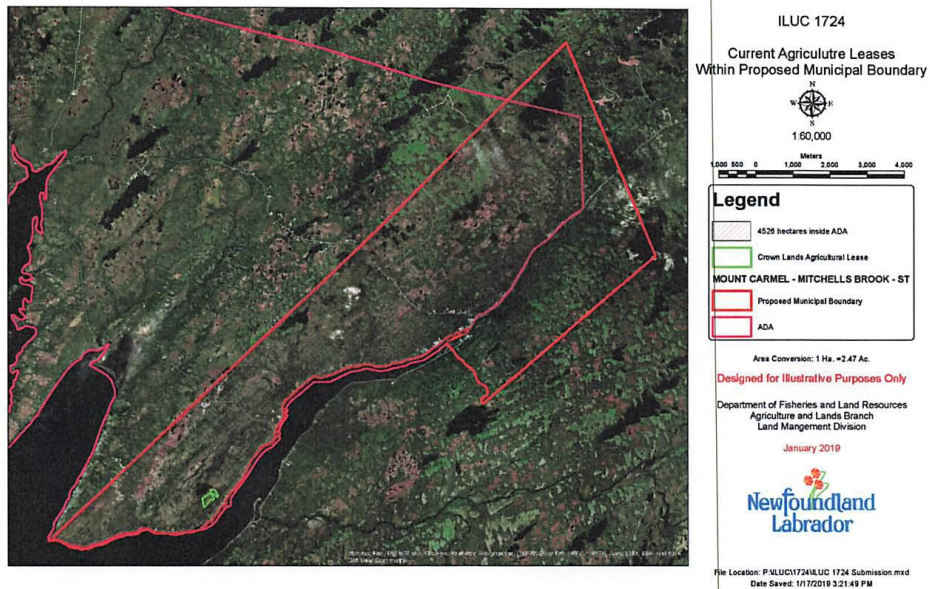
APPLICANT WM J HAWCO  
TITLE 83079  
ISSUEDATE 5/29/1989

- The Department of Fisheries and Land Resources, Agriculture Lands Branch maintains this Crown Land lease to be viable agricultural land and recommends that The Town of Mount Carmel – Mitchell's Brook – St. Catherine's reflect this in their future land use zoning. The Town should also consider the impact of potential residential and



commercial development in lands adjacent to where agricultural activities are taking place in order to mitigate future land use conflicts.

- As the Town of Mount Carmel – Mitchell's Brook – St. Catherine's moves forward with the Municipal Plan, the Section would like to review/provide input on it prior to implementation. Should you have any questions or if you would like to discuss, please do not hesitate to contact John Del Rizzo, Land Management Specialist at 729-6599 or [jdeleriz@gov.nl.ca](mailto:jdeleriz@gov.nl.ca).



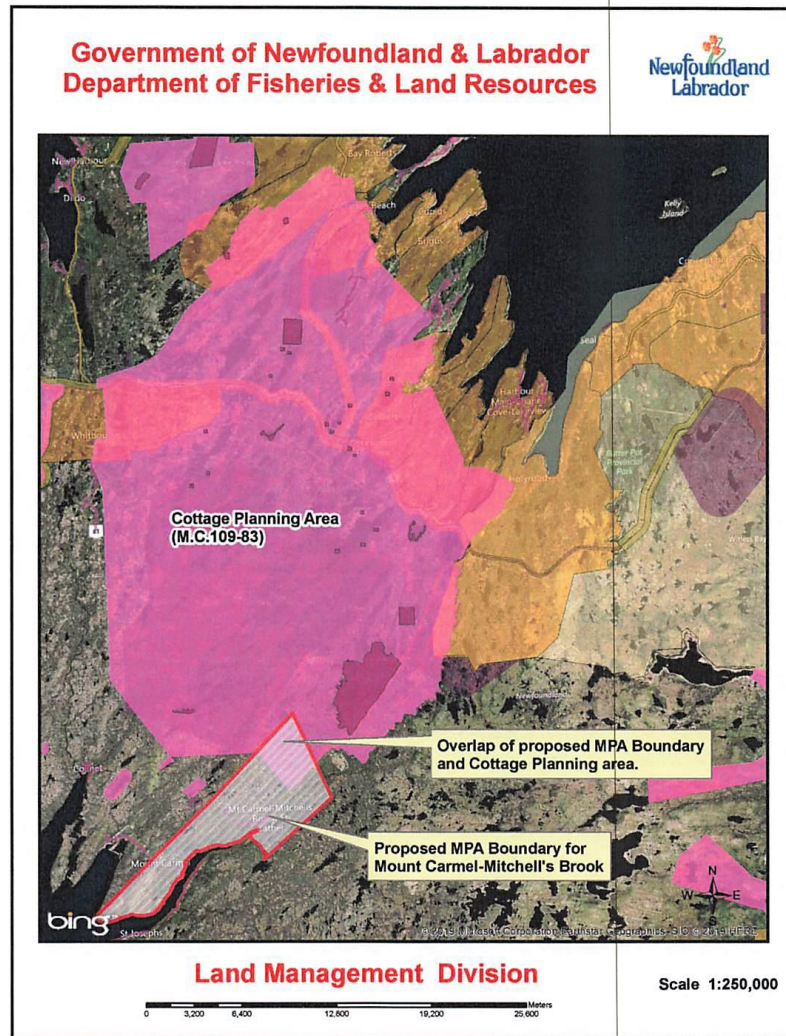
### LAND MANAGEMENT (NATURAL AREAS)

- Natural Areas Program advises the Town of Mount Carmel that the proposed planning area boundary abuts the boundary for Avalon Wilderness Reserve, and requests that any planning involving this area be developed in consultation with Land Management Division. The Town should be familiar with the Wilderness and Ecological Reserves Act and associated Regulations. The area should be managed similar to the Town's plans that "the area between the boundary and the boundary for Salmonier Nature Park is to be managed to protect park values and ensure appropriate compatible activities..."

Contact Natural Areas Program at [naturalareas@gov.nl.ca](mailto:naturalareas@gov.nl.ca) for more information.

**LAND MANAGEMENT (Planning)**

- As a result of a review of the proposed MPA, it was identified that a portion of the northerly section of the proposed MPA is located within a cottage planning area. The cottage area in question is a high demand area that was designated in a Minute in Council (M.C.) 109-83. It is recommended that the proposed MPA be adjusted to exclude the said cottage area. Below is a map identifying the described overlapped area.



## MINES

The Mines Branch, Department of Natural Resources, regulates quarrying, mineral exploration, and mining within the province. All municipalities with planning authority should ensure that their Municipal Plan and Development Regulations adequately address these activities.

In addition, the Mines Branch, through the Geological Survey of Newfoundland and Labrador, studies the potential for geological hazards in the province, including the potential for hazards related to the effects of climate change. All municipalities with planning authority should take the potential for geological hazards into account when making planning decisions, including zoning. As part of this response, please find attached a document (.doc) from the Geological Survey providing general advice to inform the municipal planning process on the subject of geological hazards and climate change. Questions about geological hazards should be directed to Martin Batterson, Director, Geological Survey of Newfoundland and Labrador, at 729-3419 or [martinbatterson@gov.nl.ca](mailto:martinbatterson@gov.nl.ca).

The Town of Mount Carmel proposed Municipal Planning Area (MPA) contains only one quarry permit at present – see attached map. The quarry permit is located north of the road to Harricott near Harricott Marsh and is held by the Department of Transportation and Works. The quarry site is long-established, having a history at least as far back as the early 2000s.

The Town of Mount Carmel proposed MPA contains several areas of recognized aggregate resource potential (i.e., areas recognized as containing, or likely to contain, sand and gravel deposits of suitable size and quality for quarrying) – see attached map.

The Town of Mount Carmel proposed MPA does not contain any mineral licences at present and there is no documented history of significant mineral exploration within the area it covers. That being said, areas within the proposed MPA may one day attract exploration interest and significant mineral discoveries may yet be made, and so the Town should ensure that its Municipal Plan and Development Regulations address mineral exploration.

The Municipal Plan and Development Regulations shall adhere to the following:

1. “Mineral exploration (development)” shall be defined as ;

the search for and sampling of minerals or quarry materials where the activity or activities involved meet the definition of “development” under the Urban and Rural Planning Act. “Mineral” and “quarry material” for the purpose of interpreting the definition of mineral exploration (development) are as defined in the provincial Mineral Act and Quarry Materials Act, 1998, respectively. Mineral exploration does not include mining or mineral working (e.g., quarrying). Activities which meet the definition of mineral exploration (development) are to be contrasted with mineral exploration activities that do not meet the definition of development, examples of which typically include traditional prospecting, geochemical sampling surveys (of rock, soil, sediment, water, or vegetation), ground-based and airborne geophysical surveys, and the cutting of survey lines.

2. “Mineral working” shall be defined as;

an operation consisting of one or more of the following activities: the digging for, excavation, and removal of quarry materials (i.e., quarrying) (may involve blasting), the removal of quarry materials previously excavated, the removal of quarry materials previously deposited on site, the stockpiling of quarry materials, the processing of quarry materials (e.g., crushing, screening, washing), the production of civil construction materials which use quarry materials in their natural form (e.g., asphalt, concrete), the re-processing of quarry materials including from reclaimed civil construction materials (e.g., reclaimed asphalt, concrete), the production of soil by blending organic materials with quarry materials, or the treatment or remediation of soil. "Quarry material" for the purpose of interpreting the definition of mineral working is as defined in the provincial Quarry Materials Act, 1998. Mineral working does not include mining but may include mineral exploration (development) as a secondary activity. Mineral working does not include the excavation and removal of quarry materials as a by-product of an approved development.

3. "Mining" shall be defined as;

an operation involving the extraction of a mineral for sale and for which a mining lease is required under the provincial Mineral Act administered by the Department of Natural Resources. "Mineral" for the purpose of interpreting the definition of mining is as defined under the Mineral Act. Mining may include, as secondary activities, mineral exploration (development) and mineral working. Note that under the Mineral Act dimension stone (i.e., stone used for building facades, gravestones, etc.) is considered a mineral in Newfoundland but a quarry material in Labrador.

4. Mineral working at quarry sites established before a zoning or other planning decision which restricts or disallows mineral working shall be considered a non-conforming use as per section 108 of the Urban and Rural Planning Act, and allowed to continue accordingly.
5. Development Regulations typically establish minimum separation distances or buffers between mineral workings and adjacent uses. Development Regulations shall also contain a statement to the effect that where the municipal authority is satisfied that the mineral working will not adversely affect the specified adjacent use or natural feature, mineral working may be permitted closer than the minimum separation distance or buffer specified. By allowing the municipality to waive pre-set separation distances where it is satisfied there will be no adverse effect provides for greater flexibility in selecting sites where mineral workings may be permitted. Such flexibility is especially important in larger municipalities where the demand for construction aggregate is greater while at the same time space more limited.
6. Development Regulations shall also contain a statement to the effect that, where a minimum required distance was originally observed when choosing the location of a mineral working, the mineral working shall not be discontinued or impeded where the buffer is reduced to less than the required distance due to encroachment of development towards the mineral working.
7. In the Table of Use Classes, mineral working, mineral exploration (development), and mining shall each be listed as their own, distinct Use Class. The same applies to petroleum exploration and extraction.

The Municipal Plan and Development Regulations *should* adhere to the following:

8. Mineral exploration (development) should at least be a discretionary use in all zones, provided that the work is subject to conditions appropriate to the use zone and which address any other concerns specific to the location.
9. Mineral working should be a permitted use in areas zoned Rural and at least a discretionary use in other relatively undeveloped zones in order to ensure that there is adequate space for quarrying within the Planning Area to meet present and future demand for construction aggregate and fill in the town. Areas of recognized aggregate resource potential (where identified) and areas where quarrying is already an established land use should be prioritized for being zoned such that mineral working is a permitted use. Some municipalities establish a dedicated Mineral Working zone for preserving areas for quarrying, whereas most municipalities rely on the Rural zone (and sometimes also the Industrial zone) to preserve space for resource uses such as quarrying. The cost of construction aggregate and fill increases significantly with transportation distance, and this is why it may not be prudent for municipalities to rely on more distant quarries to meet local demand.
10. The Development Regulations should contain a statement to the effect that "For approved developments where the extraction of quarry materials is occurring or may be expected occur, the Town will send a copy of the development permit to the Quarry Materials Section, Mineral Lands Division, Department of Natural Resources, at [quarries@gov.nl.ca](mailto:quarries@gov.nl.ca). Note that quarry materials include but are not limited to aggregate, fill, rock, stone, gravel, sand, clay, borrow material, topsoil, overburden, subsoil, peat." It is important that the Department of Natural Resources have the documentation necessary to distinguish excavation associated with an approved development from excavation that constitutes quarrying; possessing development permits for developments which may involve excavation will assist greatly in making this distinction.

Background regulatory information:

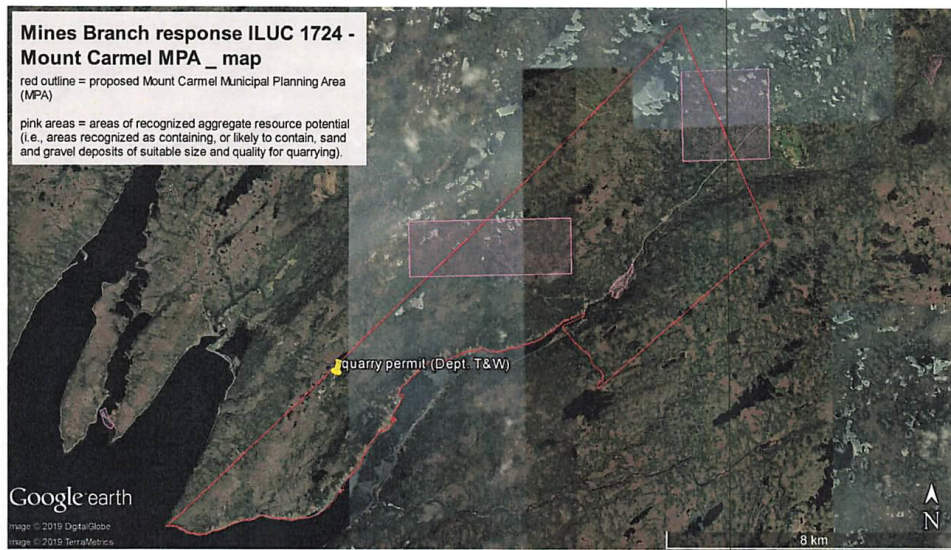
Quarrying (the most common type of mineral working) and mineral exploration are already highly regulated activities and the permitting process for each involves the municipality when the proposed activity is located within a municipal planning area; we ask that municipalities take this into account when developing their municipal plans and development regulations. The following are summaries of how quarrying and mineral exploration are regulated in the province:

- a) The Mineral Lands Division, Mines Branch, Department of Natural Resources, administers the Quarry Materials Act, 1998, under which quarrying may be approved by the issuance of either a quarry permit or lease. Quarry permits are issued for no longer than one year and, strictly speaking, are not subject to renewal, however the holder of a quarry permit one year gets the first opportunity to re-apply for a quarry permit covering the same area next year. Once a quarried area is no longer covered by a quarry permit, then the most recent quarry permit holder is required as a condition of that permit to rehabilitate the site by re-sloping pit sides and placing stockpiled organic materials back over the site. Quarry leases are issued instead of quarry permits where a longer term need has been demonstrated, are issued for a period no longer than 20 years, and require a development and reclamation plan and the posting of financial assurance with

the Department of Natural Resources in an amount sufficient to complete the reclamation work outlined in the plan should the company be unable to. Development and closure plans and the amount of financial assurance are reviewed and approved by the Department and are required to be kept up to date. All applications for quarry permits and leases for areas located within a municipal planning area are referred to the municipality, in addition to other government agencies, and terms and conditions are drafted to address any specific concerns raised during the referral process. The Mineral Lands Division has three regional quarry compliance officers who carry out inspections year-round to ensure that the terms and conditions of quarry permits and quarry leases are adhered to, including that rehabilitation, once due, is completed as required. Should a town have concerns about any quarrying activity, whether before or after the issuance of a quarry permit or lease, the town should contact the Mines Branch, Mineral Lands Division, in order to have the concerns addressed.

- b) The Mineral Lands Division, Mines Branch, Department of Natural Resources, administers the Mineral Act under which mineral licences are issued and within the bounds of which mineral exploration may be approved by the issuance of an "exploration approval". Exploration approvals are generally issued for no longer than one year. Applications for exploration approval involving areas within a municipal planning area and where the activities proposed may involve ground disturbance, wildlife disturbance, water quality impairments, or foreseeable land use conflict, are referred to the municipality, in addition to other government agencies, and terms and conditions are drafted to address any specific concerns raised during the referral process. That being said, basic environmental requirements for mineral exploration are already set out in the Mineral Regulations under the Mineral Act, for example, that all excavated, stripped, and grubbed sites be rehabilitated by backfilling or re-contouring, as appropriate, and then placing stockpiled organic materials back over the site. The Mineral Lands Division conducts inspections year-round to ensure that the Mineral Regulations and the terms and conditions of exploration approvals are adhered to, including that rehabilitation, once due, is completed as required. Should a town have concerns about any mineral exploration activity, whether before or after the issuance of an exploration approval from the Department of Natural Resources to conduct the work, the town should contact the Mines Branch, Mineral Lands Division, in order to have the concerns addressed. Mineral exploration activities may include traditional prospecting, geochemical sampling, airborne and ground-based geophysical surveys, survey line cutting, test pitting, stripping of bedrock, trenching, and diamond drilling, and may be accompanied by the creation of new (temporary) access trails, equipment laydown areas, campsites, or, less commonly, constructed access roads. Exploration for quarry materials (e.g., sand, gravel) is permitted using the same procedure and typically involves the excavation of test pits followed by their immediate rehabilitation.

Questions about any aspect of quarrying, mineral exploration, or mining, or the above comments should be directed to Stephen Hinchey, Land Use Geologist, Mineral Lands Division, Mines Branch, Department of Natural Resources, at 729-5748 or [stephenhinchey@gov.nl.ca](mailto:stephenhinchey@gov.nl.ca).



### General Comments on Geological Hazards in Newfoundland and Labrador

The following comments on geological hazards are provided as a general statement from the Geological Survey of Newfoundland and Labrador, Department of Natural Resources, for the purpose of informing development planning decisions for locations where the potential for geological hazards has been identified as well as informing the municipal plan review process. Some of the areas of discussion may not apply to the location or community under review. More details can be provided by contacting:

Martin Batterson, Director  
 Geological Survey of Newfoundland and Labrador  
 Phone (709) 729-3419  
 Email: [martinbatterson@gov.nl.ca](mailto:martinbatterson@gov.nl.ca)

Newfoundland and Labrador has a long history of geological disasters with over 290 incidences of geologically-related impacts having been recorded from 150 communities in the province over a 223-year period. There are likely numerous unrecorded events that have occurred in areas currently within municipal boundaries at a time when there was no impact on infrastructure. With community expansion and the pressure for development, these areas may be considered for residential or commercial uses. To assist the municipal planning process in identifying areas of geological hazard, the Geological Survey has begun a project to identify areas at risk of geologically-related events (landslide, rockfall, avalanche, coastal erosion, flooding) within municipalities in the Province (<http://www.nr.gov.nl.ca/mines&en/geosurvey/disasters/>)

The sections below on flooding, landslides and rockfalls, avalanches, coastal erosion and climate change should be considered in making planning decisions.

### **Flooding**

Flooding affects both inland and coastal areas. River flood plains are those areas adjacent to modern rivers that overflow their banks during storm events or as a result of ice jams. Low-lying coastal areas may be inundated by the sea during storm surge events, especially if coastal protection (including beaches) is breached. Areas at river mouths are particularly vulnerable during river flooding during periods of unusually high tide or storm events. Flood risk maps for many areas of the Province have been released by Environment Canada and the Newfoundland and Labrador Department of Municipal Affairs and Environment. These maps indicate historical events and show areas of potential threat from 1:100 year flood events. The responsibility for flooding related issue lies with the Water Resources Division, Department of Municipal Affairs and Environment, and they should be consulted on this subject. Historical flood events have been compiled in the Geological Survey's database of geological disasters (<http://www.nr.gov.nl.ca/mines&en/geosurvey/disasters/>).

### **Landslides and rockfalls**

Landslides and rockfalls are common in Newfoundland and Labrador. They are commonly triggered by heavy rainfall on steep slopes. Any development at the base of a steep slope should consider rockfall potential.

These are slope processes that involve the downslope movement of material (unconsolidated sediment, bedrock and snow) in response to gravity. The slope angle and sediment characteristics are important factors that influence slope stability. Rockfalls are the downslope movement of boulders, either by free fall, rolling or sliding. These boulders may be dislodged by freeze-thaw activity, erosion beneath the boulder, bedding plane failure or through human activity. Rockfall may also impact a slope below and trigger a landslide. Rockfalls tend to occur repeatedly, forming a talus cone of boulders at the foot of a steep slope. For single-block rock falls, the concept of a 'shadow angle' is well established. The shadow angle is defined by the angle below horizontal formed by the line lying between the apex of the slope subject to rock fall and the extreme position of rock fall debris (boulders). Numerous studies have shown this to be between 22° and 30°.

Landslides involve the downslope movement of unconsolidated material under the influence of gravity, and are capable of producing widespread damage. In Newfoundland and Labrador landslides are commonly triggered by heavy rain or snowmelt, which introduce large quantities of water to the slope. Sediment becomes saturated beyond its shear strength, at which point, movement occurs. This movement may be rapid (e.g., debris flows) or slow (e.g., creep). Historical landslide events have been compiled in the Geological Survey's database of geological disasters (<http://www.nr.gov.nl.ca/mines&en/geosurvey/disasters/>).

### **Avalanches**

Avalanches are another rapid form of slope movement. They generally consist of a combination of snow and ice, but may include sediment, rock, and vegetation. To occur, they require heavy snowfall (either introduced by precipitation or wind), and a steep (30°-50°) slope. The trigger for avalanche is commonly heavy snowfall over a smooth surface, produced from either a rapid fall in temperature in the days preceding the snowfall or from a period of freezing rain or burial of a weak layer in the snow. Alternatively, high winds blowing over a slope may create a cornice which may break off, falling to the slope below and triggering an avalanche. Historical avalanche events have been compiled in the Geological Survey's database of geological disasters (<http://www.nr.gov.nl.ca/mines&en/geosurvey/disasters/>).



### Coastal erosion

Large parts of the coastline of Newfoundland and Labrador are composed of cliffs of unconsolidated (non-rock) material. These areas are stable if covered by vegetation, but may erode quickly where exposed to waves. Rates of coastal recession up to 1m per year have been recorded in the province. Bedrock cliffs also erode, albeit at a slower rate.

Although there are Provincial regulations regarding development in relation to the high water mark, in areas of unconsolidated material forming coastal cliffs or unconsolidated sediment on bedrock however, set back from the cliff edge is, in our opinion, a more appropriate measure. Based on an average recession rate of 15 cm per year and a 100 year life span for a structure, **we recommend a setback of at least 30m (twice the average erosion rate times 100 years) from the cliff top to any planned residential or commercial development.** A longer limit should be considered in those areas where more active recession is noted.

The Geological Survey has recently initiated a coastal monitoring program that will provide data on rates of coastal erosion for the Province. For more information on coastal vulnerability contact Melanie Irvine at the Geological Survey (709-729-3489 or [melanieirvine@gov.nl.ca](mailto:melanieirvine@gov.nl.ca)).

### Climate Change

Wave magnitude and the frequency of extreme wave events (including storm surge) may be expected to increase if predictions of global climate change and associated global sea level rise occur. In Newfoundland and Labrador, the crust continues to move, albeit slowly, in response to the last glacial period. Most of the Island of Newfoundland is currently experiencing rising sea level, which will exacerbate the sea level rise as a result of climate change. Over the next century sea level is be expected to rise by over 1 metre in eastern Newfoundland, 80-90cm in western and southern Newfoundland, and less than 70 cm in Labrador; sea-level rise will continue beyond 2099

([http://www.nr.gov.nl.ca/nr/mines/geoscience/publications/currentresearch/2010/batterson\\_liverman.pdf](http://www.nr.gov.nl.ca/nr/mines/geoscience/publications/currentresearch/2010/batterson_liverman.pdf)). Rising sea level will increasingly threaten our coastline and thus planning should restrict development in low-lying areas or those adjacent to cliff edges that may experience enhanced erosion. The increased risk of coastal erosion may be accentuated by increasing pressures on the coast for residential development. **Based on the potential future impact of sea level rise and storm surge, areas below the present 2 m contour are considered to be highly vulnerable to coastal flooding.** Development within this area should be restricted to ensure that appropriate mitigation measures are employed. These could include coastal protection measures or enhanced engineering standards, although communities may choose to remove these areas from development. Areas above the present 2 m contour may also be at risk from coastal flooding, including storm surge.

The Government of Newfoundland and Labrador (Office of Climate Change and Energy Efficiency) commissioned a study of the projected impacts of climate change in the province for the period 2038-2070. The 2013 report, prepared by Dr. Joel Finnis of Memorial University, incorporated data from 7 regional climate model (RCM) simulations provided by the North American Regional Climate Change Assessment Project (NARCCAP). Model projections were compared against observations collected by Environment Canada (EC) climate stations in the province. With regards to predicted changes in temperature and precipitation the report highlights that the climate will become warmer (especially winter temperatures) and wetter (both intensity and duration) and that an increase in rain-on-snow events is likely. The latter could lead to an increased potential for flooding and landslides/ avalanches. Details of the climate change projections report can be found at:

[http://www.turnbackthetide.ca/whatsnew/2013/nl\\_climate\\_change\\_projections\\_summary.pdf](http://www.turnbackthetide.ca/whatsnew/2013/nl_climate_change_projections_summary.pdf)

You should be aware that the Geological Survey is introducing a hazard mapping program for the province. Initial work will focus on the north-east Avalon Peninsula (e.g., [http://www.nr.gov.nl.ca/nr/mines/geoscience/publications/openfiles/OF\\_001N-0884.pdf](http://www.nr.gov.nl.ca/nr/mines/geoscience/publications/openfiles/OF_001N-0884.pdf)). Maps will be released as they are completed, and mapping will extend to other areas of the province in due course.

As always the Geological Survey is available for discussions on all geologically-related hazard issues, including the potential impacts of, and adaptations to, climate change.



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Martin Batterson Ph.D., P.Geo.  
Director

#### **SERVICE NL**

- We would like to advise that any development on the referenced property may require permits and/or approvals from the Government Service Centre. It is advised that prior to the start of any development, the proponent contact the Regional Office of the Government Service Centre to discuss any relevant permits and/or approvals that may be required. The office is located at 149 Smallwood Drive, Mount Pearl, NL. The mailing address is P.O. Box 8700, St. John's, NL, A1B 4J6, Telephone (709) 729-3699, Fax (709) 729-7253.

#### **WATER RESOURCES**

- Under the authority of the *Water Resources Act*, SNL2002 cW-4.01 <http://assembly.nl.ca/Legislation/sr/statutes/w04-01.htm>, the Water Resources Management Division (WRMD) <http://www.mae.gov.nl.ca/waterres/> is responsible for the management of water resources of the province of Newfoundland and Labrador. The WRMD has programs to protect, enhance, conserve, develop, control, and effectively utilize the water resources of the province.
- Application forms for permits and licences, fee schedules, and guidelines are available at: <http://www.mae.gov.nl.ca/waterres/regulations/appforms/index.html>

##### **Conditions**

- The proponent must apply for and obtain a permit under the Water Resources Act, 2002, specifically Section 48

<http://assembly.nl.ca/Legislation/sr/statutes/w04-01.htm> for any work in any body of water (including wetland) prior to the start of construction.

- Any effluent or runoff leaving the site will be required to conform to the requirements of the *Environmental Control Water and Sewage Regulations*, 2003 <http://assembly.nl.ca/Legislation/sr/regulations/rc030065.htm>.

#### **Non-Domestic Water Use for Any Purpose**

- Prior to the start of construction, the proponent must apply for and obtain a water use licence under the *Water Resources Act*, 2002 <http://assembly.nl.ca/Legislation/sr/statutes/w04-01.htm> for the use of water from any water source for any purpose. This must be stated for all non-domestic uses with an existing, new or planned water use from any water source.

#### **Wharf/Boathouse/Slipway/Breakwater**

- A permit under the *Water Resources Act*, 2002, specifically Section 48 <http://assembly.nl.ca/Legislation/sr/statutes/w04-01.htm> is no longer required for the applied structures. However, the proponent must follow the guidelines for the Construction and Maintenance of Wharves, Breakwaters, Slipways and Boathouses which are available at: [http://www.env.gov.nl.ca/env/waterres/regulations/appforms/Guidelines\\_for\\_Wharves.pdf](http://www.env.gov.nl.ca/env/waterres/regulations/appforms/Guidelines_for_Wharves.pdf). The proponent must apply for and obtain a permit under of the *Water Resources Act*, 2002, specifically Section 48 <http://assembly.nl.ca/Legislation/sr/statutes/w04-01.htm> for any infilling or dredging work associated with these structures or other works in any body of water prior to the start of construction.

#### **Development in Shore Water Zones**

- The proponent must apply for and obtain a permit under the *Water Resources Act*, 2002, specifically Section 48 <http://assembly.nl.ca/Legislation/sr/statutes/w04-01.htm> for any work in Shore Water Zones prior to the start of construction. Also, any work in the Shore Water Zones must comply with this Department's Policy for Development in Shore Water Zones: [http://www.mae.gov.nl.ca/waterres/regulations/policies/shore\\_water.html](http://www.mae.gov.nl.ca/waterres/regulations/policies/shore_water.html)

#### **Infilling within 15 metres of Bodies of Water**

- The proponent must apply for and obtain a permit under the *Water Resources Act*, 2002, specifically Section 48 <http://assembly.nl.ca/Legislation/sr/statutes/w04-01.htm> for any infilling work within fifteen (15) metres of a body of water prior to the start of infilling. Also, any proposed infilling within fifteen (15) metres of a body of water must comply with this Department's Policy for Infilling Bodies of water: [http://www.mae.gov.nl.ca/waterres/regulations/policies/bodies\\_of\\_water.html](http://www.mae.gov.nl.ca/waterres/regulations/policies/bodies_of_water.html)

**Contact:** Manager, Water Rights, Investigations and Modelling Section - (709) 729-2295,  
[waterinvestigations@gov.nl.ca](mailto:waterinvestigations@gov.nl.ca)

## WILDLIFE

- The Wildlife Division, through its involvement in the Eastern Habitat Joint Venture, seeks to work with municipalities in the development of municipal plans or municipal plan updates and would be pleased to meet with council/staff/consultants to discuss the incorporation of wildlife and conservation values in municipal plans and associated development regulations. Please contact Jonathan Sharpe at 637-2013 or [jonathansharpe@gov.nl.ca](mailto:jonathansharpe@gov.nl.ca) for more information.
- The municipal boundary includes two avian species (Red Crossbill and Rusty Blackbird) listed under the Newfoundland and Labrador *Endangered Species Act* (NLESA) as well as two rare lichen species (Boreal Felt Lichen and Blue Felt Lichen). Section 16 (1) of NLESA states, "A person shall not disturb, harass, injure, or kill an individual of a species designated as threatened, endangered, or extirpated".
- Fact sheets about the species listed above are available on the Government of Newfoundland and Labrador website or by clicking the links below:

[https://www.flr.gov.nl.ca/wildlife/endangeredspecies/Red\\_Crossbill\\_Information\\_Sheet.pdf](https://www.flr.gov.nl.ca/wildlife/endangeredspecies/Red_Crossbill_Information_Sheet.pdf)

[https://www.flr.gov.nl.ca/wildlife/endangeredspecies/Rusty\\_Blackbird\\_Information\\_Sheet.pdf](https://www.flr.gov.nl.ca/wildlife/endangeredspecies/Rusty_Blackbird_Information_Sheet.pdf)

[https://www.flr.gov.nl.ca/wildlife/endangeredspecies/boreal\\_felt\\_lichen.pdf](https://www.flr.gov.nl.ca/wildlife/endangeredspecies/boreal_felt_lichen.pdf)

[https://www.flr.gov.nl.ca/wildlife/endangeredspecies/Blue\\_Felt\\_Lichen\\_2015.pdf](https://www.flr.gov.nl.ca/wildlife/endangeredspecies/Blue_Felt_Lichen_2015.pdf)

- Please contact the Wildlife Division when dealing with development proposals/vegetation clearing to ensure appropriate mitigation measures are put in place to address species habitat requirements and avoiding accidental takes. For example, cutting of yellow birch must be avoided as they function as hosts for some of the listed (vulnerable) **lichen** species.
- Due to the presence of rare plant habitat along the entire Salmonier River, we strongly recommend a wider undisturbed buffer (measured from the high water mark), than the standard 30m, to be left to protect these species of conservation concern.
- The Wildlife Division would like the municipality to also consider general wildlife habitat and landscape connectivity during the next phase of their municipal review plan. This could include :
  - Maintaining appropriate riparian buffers, which are natural green belts along wetlands and waterbodies (ponds, rivers, creeks etc.). A 30m minimum undisturbed natural vegetated green belt could be a standard requirement when dealing with any type of land use activity; wider green belts are suggested when bordering land uses include for example agricultural practices.
  - To maintain landscape connectivity, green belts should be connected to forested areas or other habitat patches to create travel corridors for various wildlife species. Development Regulations could incorporate a minimum percentage of forests to be

maintained during lot clearing, for example. Vegetation clearing should always be done outside the *May 01 to July 31* period (note that some raptors start breeding in March) as disturbance can be most detrimental during that sensitive breeding/ young rearing period.

**ILUC RECOMMENDATION:**

The proposed Municipal boundary for the Town of Mount Carmel – Mitchell’s Brook – St. Catherine’s is approved. The Town of Mount Carmel – Mitchell’s Brook – St. Catherine’s or the planners should take into account the comments contained within this document when developing the Municipal Plan.

*R. Carey*

Richard Carey, Chair  
Interdepartmental Land Use Committee

Date: *Mar. 1, 2019*