



There's no place like home.

To: Councillor Wells, Chair, Age-Friendly Committee
Fm: Age-Friendly Subcommittee on Housing
Re: Committee Recommendations
Date: September 17, 2018

Introduction: *Canada's population is in the midst of a demographic shift. ... Seniors are Canada's fastest growing demographic – the proportion of seniors is expected to reach 25% by 2036. It is projected that between 2015 and 2021, seniors will outnumber children under 14 for the first time.¹*

New Brunswick, and by inference, Rothesay, is no different than the rest of Canada – our population is ageing. The implications for **housing** are tremendous as are the challenges.

While Rothesay is a community where it's wonderful to be young, it must also be a community where it's wonderful to be old. Ageing-in-place will be realized when the two are connected.

Subcommittee Members Few tasks are accomplished by a single individual and the housing subcommittee was no exception.

The following individuals comprised the committee-in-question.

¹ A Policy Framework to Guide a National Seniors Strategy for Canada

Traci Britain	Carolyn Burke
Jenny Robinson	Jocelyn Daye
Jeff Kitchen	Brian White ²
Judy Grannan	Stirling Scory ²
Don Shea ³	

Background:

In 2017, Rothesay commissioned a study into age-friendly housing. The study was done by Square Peg Consulting of the Dalhousie School of Planning.

The goal of the study was to assist Rothesay in addressing senior's housing concerns by providing the following:

- ✳ An overview of global, national and provincial age-friendly documents;
- ✳ A community profile of the municipality;
- ✳ A housing analysis; and
- ✳ A list of recommendations.

Having this study available made the subcommittee's task less onerous.

Findings:

In terms of its findings, the report, Age-Friendly Housing Background Study, can best be summarized as follows:⁴

- ✳ The senior population in Rothesay will increase significantly in the foreseeable future while the youth population will decline.
- ✳ In terms of housing affordability, Rothesay is considered moderately unaffordable.
- ✳ A significant portion of housing stock in Rothesay is 40+ years old, in good condition and mostly comprised of single-family units.

² Staff

³ Subcommittee Chair

⁴ Not in any particular order

- * The municipality does have a fairly large area of vacant residential land for potential future development.
- * Most apartments in Rothesay are two- bedrooms and there exists a need for more one-bedroom units.
- * Senior friendly housing options could be implemented such as:⁵
 - o Secondary suites
 - o Shared housing
 - o Planned retirement communities, and
 - o Congregate housing

Report Recommendations

The report is rich in its information as reflected in its recommendations among which are the following:⁶

- * Develop and implement a system of data collection to measure the effectiveness of initiatives (i.e., the number of barrier-free units, affordable units, increase in housing diversity, etc.).
- * Encourage in-migration of different age groups to maintain a balanced age demographic.
- * Develop an affordable housing strategy as outlined in the Affordable Housing in Rothesay paper, dated 2013.
- * Encourage new development on vacant land close to amenities and where services exist.
- * Encourage the development of diverse, affordable and accessible units, and adaptation of existing housing stock.

Subcommittee's Recommendations

Throughout the last several months, members became increasingly aware the above-mentioned report referenced all the topics discussed in committee.

⁵ These are a sampling of options identified in the report and in the literature

⁶ Not in any particular order

At its' final meeting on September 5th the Age-Friendly Housing subcommittee endorsed the 2017 Age-Friendly Housing Background Study authored by Square Peg Consulting.

Along with the endorsement, the subcommittee on housing makes the following recommendations to the Age-Friendly Committee:⁷

- i. That it send the whole report to an open session of Council for its approval and subsequent use in the municipal planning process;
- ii. That it recommend to Council the report be made public; and
- iii. That a copy of the report be provided to the Hon. Filomena Tassi, Federal Minister for Seniors⁸.

s

Closing

I want to take this opportunity to extend huge thanks to the subcommittee members who, in spite of demanding schedules, took the time to examine this most important topic. Their work and energy were second to none.

Respectfully submitted

Traci, Carolyn, Jenny, Jeff, Jocelyn, Judy, Brian, Stirling & Don

⁷ This recommendation was passed unanimously by members in attendance on September 5, 2018

⁸ The Minister requested a copy when she, along with Wayne Long, MP, visited the area.



Photograph by Square Peg Consulting

ROTHESAY

Age-Friendly Housing Background Study



Square Peg Consulting

Elizabeth Nicoll | Saira Shah | Cameron Thompson | Sarah Bercu
School of Planning, Dalhousie University, Halifax, Nova Scotia
May 16, 2017

EXECUTIVE SUMMARY

Goal: to assist Rothesay in addressing seniors' housing concerns, by providing:

- An overview of global, national, and provincial age-friendly policy documents;
- A community profile of Rothesay;
- A housing analysis; and
- A list of recommendations.

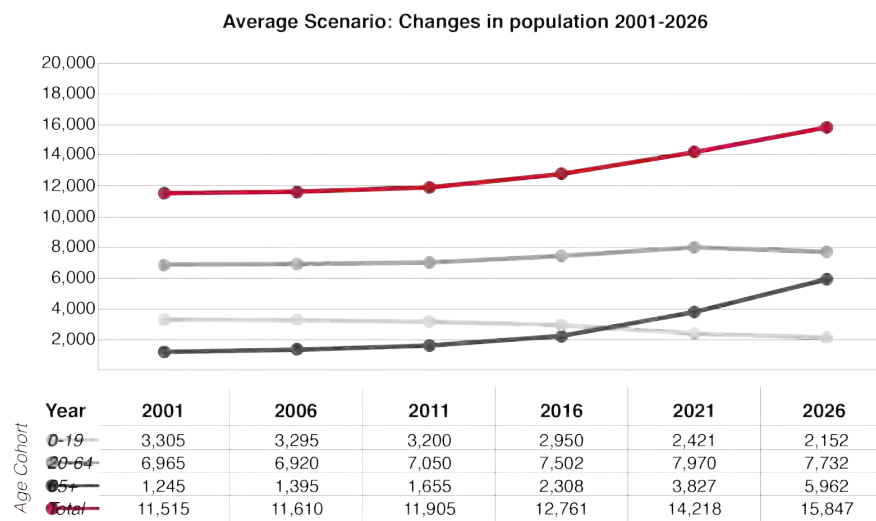
Method

Square Peg Consulting reviewed several international, Federal, and Provincial age-friendly documents to identify the process of becoming a recognized age-friendly community. The community profile and population projections were completed using statistics from Statistics Canada. The housing needs analysis utilized data from the Canada Mortgage and Housing Corporation data and GIS data provided by Rothesay. Recommendations were developed by conducting a comparison of findings from the document and policy review, community profile, and housing analysis.

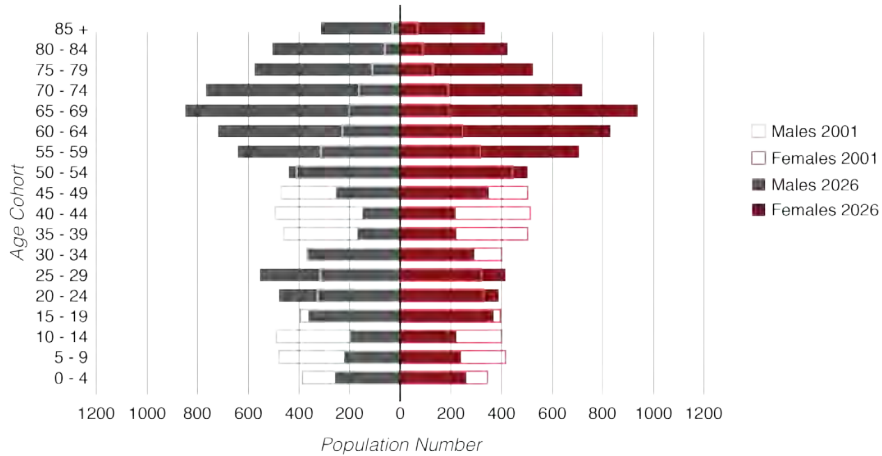
Findings

The senior population will increase significantly by the year 2026, while youth populations decrease. The

median multiple indicator was used as a method to assess housing affordability. As of 2011, Rothesay is considered “moderately unaffordable.” A significant proportion of Rothesay’s housing stock is more than 40 years old, in good condition, and is single family housing. Rothesay can encourage the adaptation of older homes to utilize the existing housing stock. There is a large area of vacant residential land for potential future development, and a lack of one bedroom apartments. Senior friendly housing options could be implemented such as secondary suites, shared housing, planned retirement communities, and congregate housing, to diversify the existing housing stock.



Average Scenario: Comparing the Historical 2001 and Projected 2026 Population Estimates



Recommendations

- Develop and implement a system of data collection to measure the effectiveness of initiatives (e.g. number of new barrier free units, affordable units, increase in housing diversity).
- Encourage in-migration of different age cohorts to maintain a balanced age demographic.
- Develop an affordable housing strategy, as outlined in the Affordable Housing in Rothesay discussion paper (2013).
- Encourage new development on vacant residential land close to amenities and where services exist.
- Encourage the development of diverse, affordable and accessible units, and adaptation of existing housing stock.

Dwelling Age	Parcel Count	Residential Unit Count	% of Residential Unit Stock
Less than 10 yrs	267	395	7.89%
10-20 yrs	376	381	7.61%
20-30 yrs	945	997	19.9%
30-40 yrs	898	1,249	24.9%
40-50 yrs	1,760	1,981	39.5%
Total	4,246	5,003	100%

- Develop an education and outreach campaign to inform residents of the benefits of diverse housing types for the community.

Rothesay's population has decreased while number of units have increased, senior population has increased, affordability has decreased, and there is a significant amount of vacant land available for development. As the community's demographics change, retrofitting of existing housing stock can help to ensure a sustainable housing market. Vacant residential land may provide an opportunity to implement innovative housing options (e.g. secondary suites, shared housing, retirement communities, congregate housing). Square Peg Consulting believes that by pursuing the Age-friendly designation, and encouraging innovative housing types, the municipality will encourage people of all ages to live and move to Rothesay.

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ACKNOWLEDGEMENTS

CONSULTANT TEAM

Elizabeth Nicoll, Masters of Planning Candidate (2017), Dalhousie University

Sarah Bercu, Masters of Planning Candidate (2017), Dalhousie University

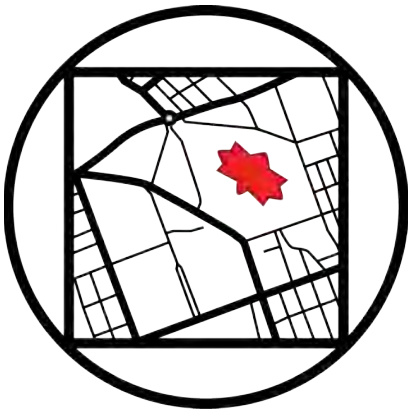
Saira Shah, Masters of Planning Candidate (2017), Dalhousie University

Cam Thompson, Masters of Planning Candidate (2017), Dalhousie University

TOWN OF ROTHESAY PROJECT TEAM

Brian White, Director of Planning and Development Services

Created January 2017 - April 2017



GLOSSARY AND ACRONYMS

ACTIVE AGING:

The process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age.

ADAPTATION

Adapting existing building stock to incorporate universal design standards, and/or to subdivide existing building stock into smaller, denser units (e.g. a duplex)

AGE-FRIENDLY:

A combination of policies, services, settings and structures supporting and enabling people of *all* ages to actively age and engage fully with the community.

AGING IN PLACE:

The ability (e.g. financial means) to stay within the same house or neighbourhood regardless of age or physical capacity.

PRIMARY HOUSEHOLD MAINTAINER:

The first person identified in the Census questionnaire as the one paying rent or mortgage in the household.

ROOMS:

Enclosed areas within a private dwelling which are finished and suitable for year round living. The number of rooms in a private dwelling includes kitchens, bedrooms, and finished rooms in an attic or basement, and excludes bathrooms, halls, and rooms used solely for business purposes.

SENIORS:

Residents over the age of 65.

SENIORS ONLY HOUSING:

Housing options that cater solely to seniors (65+).

UNIVERSAL DESIGN:

The design of an environment so it can be accessed and used to the greatest extent possible by everyone, regardless of age, size, and physical capacity.

VULNERABLE POPULATIONS:

A disadvantaged sub-segment of the population requiring specific care and consideration.

ASHRA:

Atlantic Seniors Housing Research Alliance.

CMHC:

Canada Mortgage and Housing Corporation.

GIS:

Geographic Information System.

PHAC:

Public Health Agency of Canada.

WHO:

World Health Organization.



Photograph by Derek Grant, 2011, "Rothesay Common"

1. Introduction

Rothesay is located in the Kennebecasis Valley in the Province of New Brunswick, bound by the City of Saint John and the Town of Quispamsis (see Map 1). In 1998, the former communities of East Riverside-Kinghurst, Fairvale, Renforth, Rothesay, and Wells amalgamated to form Rothesay.¹ Rothesay is predominantly a suburban neighbourhood with an extensive network of open spaces and recreational opportunities, such as trails, beaches, parks, and playgrounds.

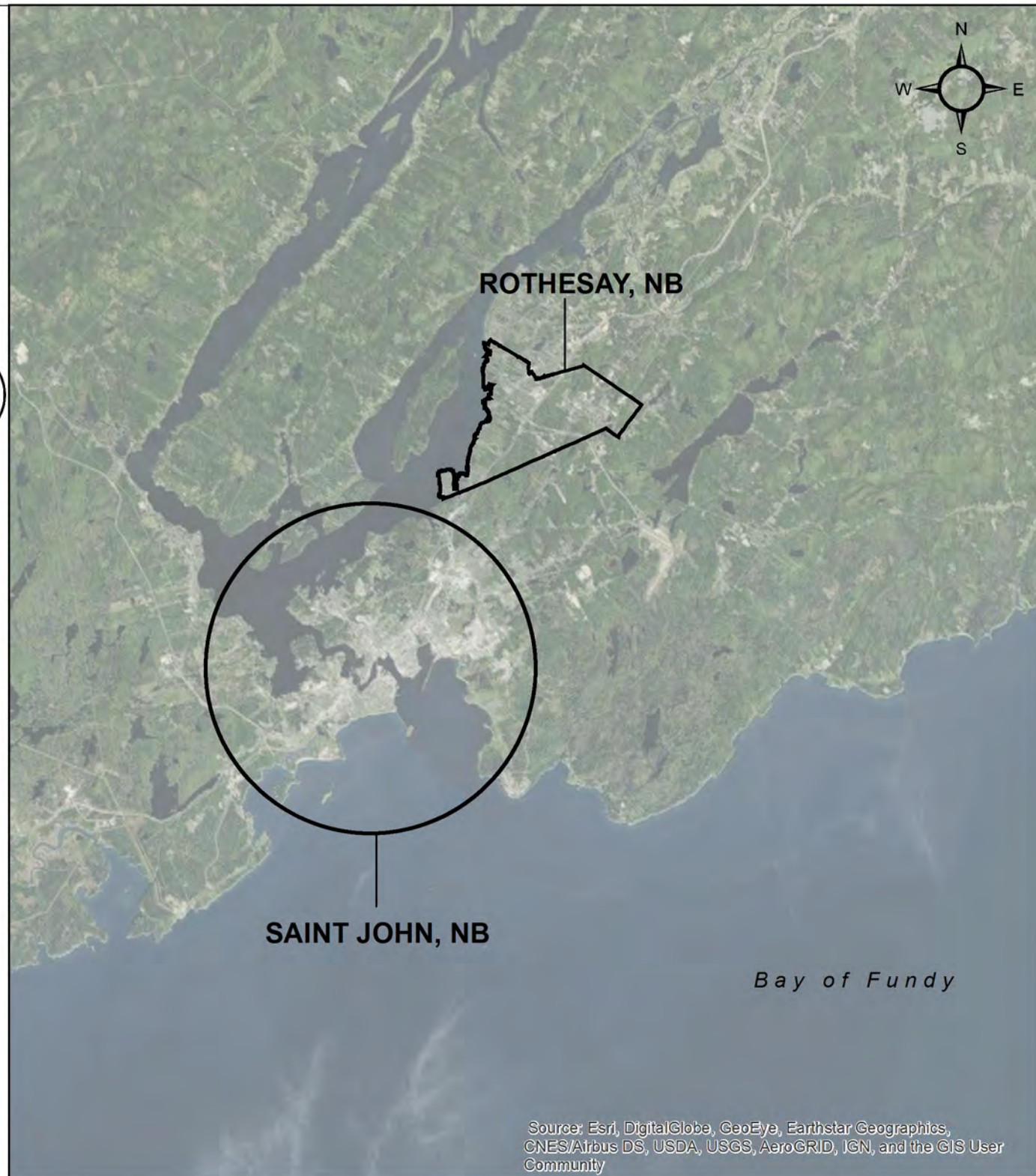
The population of Rothesay is aging. Recognizing the implications of an aging population, Rothesay is taking proactive measures to determine how its residents can remain within the community as they age. Rothesay is focusing efforts to determine how housing availability and affordability will impact senior residents and has partnered with Square Peg Consulting to conduct this background report. The following report examines the components of age-friendly housing, analyzes current and future population trends, and conducts a housing inventory analysis.

Map 1 *Context map for Rothesay, NB*

¹ Rothesay, 2012a

Rothesay

*Geographical Relationship
to Saint John, NB*



1.1 VULNERABLE POPULATIONS AND AGE-FRIENDLINESS

Vulnerable populations can be defined as a disadvantaged segment of the population requiring specific care and consideration.² Vulnerable populations may include the economically disadvantaged, racial and ethnic minorities, low income children, the uninsured, elderly, homeless, and those with chronic health conditions. The vulnerable may face several challenges simultaneously, e.g. poverty, inadequate housing and education.³ The implementation of age-friendly policies can reduce costs associated with health care and provide a range of social and economic benefits for vulnerable populations, while encouraging seniors' contributions to community life.⁴

An age-friendly community consists of a combination of policies, services, settings and structures that support and enable people to age actively.⁵ Age-friendly communities promote and encourage the ability to age in place. Aging in place is the ability to stay within the same house or neighbourhood regardless of age, physical capacity, or financial means.⁶ The World Health Organization (WHO) created an age-friendly city guide which includes a checklist of key components for age-friendly design.

There are eight identified domains which influence the health and quality of life for all residents:

1. Outdoor spaces and buildings;
2. Transportation;
3. Housing;
4. Social participation;
5. Respect and social inclusion;
6. Civic participation and employment;
7. Communication and information;
8. Community support and health services.

This report focuses specifically on the housing domain, in particular, how Rothesay can better ensure housing supports vulnerable populations.

1.2 PURPOSE, GOALS, AND OBJECTIVES

Rothesay has expressed an interest in becoming an age-friendly community. The Town has established a special committee on seniors' issues, and began other age-friendly initiatives, including working with Square Peg Consulting for this report. The goal is to establish Rothesay as a recognized age-friendly community by providing:

- An overview of global, national, and provincial age-friendly policy documents;
- A community profile of Rothesay;
- A housing analysis; and
- A list of recommendations and areas for future study.

1.3 METHODS

Document & Policy Review

We analyzed the WHO Global Age Friendly Cities Guide⁷ and the Canadian Age-Friendly Communities documents to determine key components and to identify national and international processes to becoming a recognized age-friendly community. Our attention focused on the housing domain. Provincial policy documents were reviewed to determine how age-friendly communities were defined, and to highlight examples of existing planning policies and initiatives. Existing planning policy for Rothesay was analyzed to identify how innovative housing options could be implemented.

Site Visit & Community Profile Population Projections

A site visit was conducted early February 2017 to familiarize Square Peg Consulting with Rothesay. We met with Rothesay staff and Council, and Senior Watch (a home care service). An analysis of Rothesay's demographics was developed through a population projection forecast. A Census analysis was carried out using data for Rothesay and the Province of New Brunswick to provide a comparative analysis.

Housing Inventory and Assessment

GIS analysis was conducted using ArcGIS files provided to us by Rothesay. The data was used to identify dwelling age and count, vacant residential land, affordability, and proximity to services. Residential zoning was combined with Parcel Fabric units to provide a differentiation between residential and non-residential units (i.e. commercial, rural).

Recommendations

Our final recommendations are based on a comparison of findings from the document/policy review, community profile, and housing inventory/assessment.

1.4 LIMITATIONS

It is acknowledged that a key component to a municipal age-friendly strategy is engagement and consultation with the community's senior population. Due to time constraints, Square Peg Consulting was unable to conduct an engagement session.

Statistics Canada is releasing the Census 2016 information throughout the 2017 year. At the time of this report, only the population counts for communities across Canada had been released. Population information broken down by age and sex cohorts were set for release after submission of this report. As a result, the population projections described in Section 3.0 included 2016, and indicated a population increase, when in reality Rothesay's population saw a decrease.

Time constraints made a comprehensive network analysis using GIS unattainable for this report. A network analysis would take mobility factors into consideration when conducting the different proximity analyses discussed in Section 4.0. The proximity zones were created based on existing literature and did not consider vehicular and/or walking routes and impediments. In addition, the housing needs analysis was not able to include information about unit size in square feet, building height, number of storeys, and number of secondary suites

due to data limitations. Certain commercial uses (e.g. the veterinarian clinic in vicinity of the fire hall) were included in the commercial analysis despite not directly relating to age-friendly housing, also due to data limitations.

2. Planning Context

This chapter identifies age-friendly guidelines and housing checklists from the WHO, the Government of Canada, and the Province of New Brunswick. An overview of Atlantic Canadian senior housing trends, innovative housing options, and case studies have been provided as valuable background information for Rothesay.



Photograph from the Town of Rothesay

2.1 AGE-FRIENDLY GUIDELINES

The WHO Global Age-Friendly Cities Guide has become the world standard for defining and assessing the age-friendliness of cities.⁸ The WHO contends that a municipality must recognize the senior population is an invaluable resource to society and as such, must be included in all aspects of community life. Seniors' needs and preferences differ, requiring municipalities to find flexible ways to anticipate and respond to their needs.

Several countries have developed their own approach to creating age-friendly communities. In 2008, the Canadian Federal government created a model based on the WHO guidelines and developed a research framework for assessing age-friendliness:

- 1. Phase 1 - Committee Formation:** Stakeholders (e.g. elected officials, senior staff, representatives from private, business and volunteer sectors) are brought together to develop an age-friendly plan.
- 2. Phase 2 - Assessment:** A comprehensive assessment of the community is conducted to determine community strengths and assets (e.g. initiatives, programs that support aging in place). The assessment can contribute to the development of a “baseline” which can be used to measure progress and set priorities.

3. Phase 3 - Planning: The committee organizes everything that was found in the assessment to determine the strengths, prioritize issues, and develop recommendations for action. The recommendations lead to action plans, timelines, and an analysis of resources available for implementation.

4. Phase 4 - Implementation: Achieved through small steps or major initiatives that require resources from the provincial government.

5. Phase 5 - Monitoring: The committee sets clear and measurable goals that can be monitored and assessed over time.⁹

The Public Health Agency of Canada (PHAC) recommends a survey as a measurement method for age-friendly issues.¹⁰ Once the survey responses have been collected, and policies have reached the implementation phase, the Age-Friendly Community Initiative can obtain Provincial, National, and/or international recognition. To obtain recognition, the community's Steering Committee must demonstrate that the initiatives meet specific criteria and submit an application for consideration to the Province, or if seeking international recognition, the WHO.

8 World Health Organization, 2007

9 Federal/Provincial/Territorial Ministers Responsible for Seniors, 2006

10 Public Health Agency of Canada, 2015

The benefits of becoming an internationally recognized age-friendly community include access to a global network of age-friendly experts, collaborative activities, and guidance for the development and implementation of age-friendly policies and programs.¹¹

2.1.1 Provincial Policy Framework

New Brunswick has one of the fastest growing aging populations in Canada.¹² As a result, the Province has made age-friendly planning a top priority. The main principle behind New Brunswick's age-friendly strategy is active aging, which refers to seniors' participation in social, economic, cultural, spiritual, and civic affairs no matter their physical capacity. Age-friendly built environments can make neighbourhoods more liveable for all ages, reduce costs associated with health care, and provide a range of social and economic community benefits by encouraging seniors' contributions to community life. The Province has created five policy documents over the last six years in an effort to develop goals and initiatives that facilitate an age-friendly transition for municipalities and the Province (see Figure 1).

ACTIVE AGING

*"The process of optimizing opportunities for health, participation, and security in order to enhance quality of life as people age."*¹³



Social Life



Economic Life



Cultural Life



Civic Life



Spiritual Life

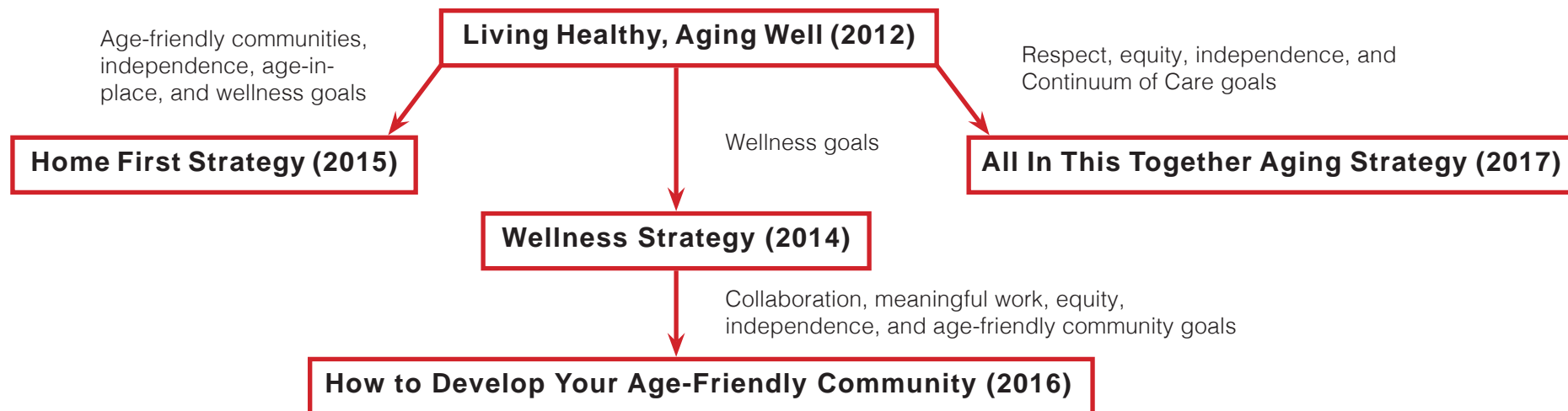


Figure 1 How New Brunswick policy documents are connected (based on *Living Healthy, Aging Well* (2012) goals)

In 2012, the *Living Healthy, Aging Well* report was issued by The Premier's Panel on Seniors, to assist the Province in understanding and preparing for the social and economic challenges that seniors face.¹⁴ The report introduced the concept of age-friendly communities to New Brunswick and identified ten core goals to serve as guiding principles¹⁵:

1. Respect: value the knowledge, wisdom and skills of seniors;
2. Collaboration: residents of all ages unite around common vision for the province;
3. Meaningful work: skilled contributions of seniors to the paid labour force and volunteer sector are valued;
4. Age-friendly communities: enable full participation of

- seniors in local economic, social, civil and cultural life;
5. Equity: equity across generations;
6. Independence: optimize independence of seniors by enabling them to live safely and securely in the residence of their choice;
7. Age in place: provide accessible transportation options, affordable housing, home-based services;
8. Lifelong learning: encourage learning throughout life;
9. Wellness: develop health promotion strategies; and
10. Continuum of care: create a coordinated continuum of care for vulnerable seniors and their families. A 'care continuum' can assist in identifying the various levels of care that seniors of different physical capacities and ages will require.

In 2015, the Provincial government released the *Home First Strategy* which addresses several goals identified in the *Living Healthy, Aging Well* report (e.g. age-friendly communities, independence, age in place, wellness). The *Home First Strategy* is a three-year plan that aims to enhance healthy aging and care for all seniors by focusing on active aging and home/community-based care.¹⁶ The *Home First Strategy* is built on three pillars:

1. Healthy aging to ensure self-care and community capacity;
2. Appropriate supports and care to ensure better specialized care options, supports for caregivers, and technology enabled home-based care; and
3. Responsive and integrated sustainable systems involving coordination of care between providers.¹⁷

The *New Brunswick Wellness Strategy* created in 2014 addresses the wellness goal identified in the *Living Healthy, Aging Well* report. The *Wellness Strategy* focuses on ensuring communities are inclusive to all and allow residents to live independently regardless of age or physical capacity.¹⁸

The *How to Develop your Age-Friendly Community* report, created in 2016 by the Provincial Government, pursues two main goals of the Wellness Strategy:

1. To increase the number of New Brunswickers with the capacity to support healthy development and wellness; and
2. To increase the number of municipalities that have conditions to support wellness¹⁹

The *How to Develop your Age-Friendly Community* acts as a guide for municipalities to address several goals in *Living Healthy, Aging Well* such as collaboration, meaningful work, equity, independence, and age-friendly communities by outlining the steps to creating an age-friendly community specific to New Brunswick (see Table 1). New Brunswick created the New Brunswick Age-Friendly Recognition Program. Successful communities in the program receive an age-friendly recognition award, permission to use a Provincial age-friendly logo on promotional material, and a one-page summary on wellnessnb.ca highlighting steps and initiatives taken to achieve age-friendly status (see Table 1). There is no funding associated with the recognition program.

Step	Description	Relevant Principles in the Wellness Strategy
Step 1 Engagement	A relevant resolution is the official commitment passed by the municipality	Leadership, policy, and legislation create conditions for healthier environments.
Step 2A Establish Steering Committee	The Steering Committee is a group of stakeholders of all ages, who work toward helping seniors live safe, healthy lives and participate fully in society.	Partnerships and collaboration help identify community opportunities, leverage resources and talents
Step 2B Securing Support for Initiatives	There are several regional, provincial and not-for-profit organizations that are available to help assist municipalities	Engage and mobilize partners to draw on their existing strengths and assets
Step 3 Conducting an Age-Friendly Assessment	a) a profile of the citizens b) an identification of the community's strengths and assets, including: an inventory of infrastructure, services, programs, and activities c) an identification of issues and opportunities based on the perspectives and priorities of the senior population. d) a summary of the assessment	The use of local, relevant data and evidence helps to engage the community and inform planning initiatives.
Step 4 Developing the Action Plan	Includes the objectives and concrete actions to be taken, in the short, medium, or long term	
Step 5 Implementation	Objectives must be: specific, observable, realistic, and coherent. Concrete actions for each objective must: <ul style="list-style-type: none"> • use clear, precise wording to describe the action • identify the partnerships and available resources • establish a timeline • define the expected outcomes 	Promotion is a key way to effect positive social change through the development and use of communication tools, social marketing and resources
Step 6 Monitoring Process	Monitoring progress involves: data and a reflective self-assessment	
Step 7 Recognition Program	The Municipality must demonstrate that they followed the steps outlined in the How to Develop your Age Friendly Community document	

Table 1 *The steps that need to be taken to attain age-friendly community status²⁰*

The *All in This Together Aging Strategy* outlines three main goals for New Brunswick:

1. Enable seniors to live independently;
2. Achieve sustainability and innovation; and
3. Embrace a provincial culture of person-centered care and support ²¹.

The WHO, Government of Canada, and Province of New Brunswick each have a unique set of housing checklists for an age-friendly community, with some overlapping characteristics (see Figure 2).

The establishment of age-friendly communities throughout the Province is a major initiative indicated by the strategies summarized in this report. Overall, the documents suggests the Province is committed to establishing age-friendly communities. Each provincial strategy can act as guide for Rothesay to ensure their age-friendly goals align with the goals of the Province.



Figure 2 Summarization of WHO, Public Health Agency of Canada and two of the New Brunswick Policy documents (*How to Develop Your Age Friendly Community* (2016) and *Living Healthy, Aging Well* (2012) listing criteria for housing in an age friendly community.

2.2 ATLANTIC CANADIAN CONTEXT

In a five-year study conducted by the Atlantic Seniors Housing Research Alliance (ASHRA), it was found that Atlantic Canadian seniors:

1. Want to age at home and in their communities;
2. Are not considering alternative housing options;
3. Prefer seniors-only housing;
4. Have significant home repair needs; and
5. Are not aware of available housing programs.²²

Seniors spend a disproportionate amount of their incomes on housing; however, their health is most influential on their housing choices. ASHRA found that seniors participate in volunteer organizations more than in seniors' programs, although some seniors do not have significant social supports. Lastly, seniors predominately live in rural areas (areas with fewer than 1,000 residents)²³.

The study found 53% of Atlantic Canadian seniors have lived in the same community for over 35 years with little intention to move.²⁴ If seniors are considering moving, it is only to be closer to family and friends. Seniors have significant home repair needs (e.g. corroded pipes, damaged electrical wiring, deteriorating foundations), and are concerned about safety and accessibility in terms of

windows, entrance areas, and storage spaces. Seniors face financial difficulties with home maintenance and hired help, and tensions with landlords regarding maintenance and repairs. It was suggested that this could be alleviated through better communication regarding available housing programs. Seniors face further financial difficulties paying for their housing, with 47% of seniors spending more than 30% of their income on shelter.²⁵

Seniors are interested in housing which allows them to age in place - housing that can adapt to changing needs. To do so, financial assistance programs should be adjusted to provide assistance to more than just those of low income, social supports should be improved, and choices in types of housing within a senior's current community should expand. A broad array of housing choices need to be available to meet the various income levels and needs of senior populations.

2.3 INNOVATIVE HOUSING

Flexibility in planning legislation and incentives can encourage housing types that are affordable and accessible, and currently not supplied by the market. At a broad level, innovative senior housing can include secondary suites and bi-family units (to allow for a senior to remain close to family members), shared housing, retirement communities (to allow for increased social interaction), and congregate housing (to provide increased access to care services). Secondary suites are private, separate units within an existing dwelling (commonly a single-family home).

Shared housing involves sharing a large home with several unrelated people, who each have access to their own private living area. Retirement communities provide seniors with independent living, while allowing access to care services and recreational opportunities. Congregate housing is a shared living environment which allows at-risk seniors to live independently, with supportive services and social opportunities.

This section identifies potential zoning options which could allow for innovative housing options, followed by an overview of Rothesay's current planning by-laws. It includes a more in-depth overview of the innovative housing options listed above.

2.3.1 *Planning Policy for Innovative Housing*

Zoning can allow for mixed-uses, types, and densities, for residential units. Mixed-use developments (i.e. commercial and residential), and a mixture of heights and densities in residential areas, can add diversity to the housing stock.²⁶ Aging in place can be encouraged by allowing for housing diversity within individual developments through the use of inclusionary zoning.²⁷ In a mandatory inclusionary zoning program, developers are required to contribute affordable housing or other public benefit as a condition of development approval. In an incentive-based voluntary program, developers are offered a density bonus or other incentives to encourage the development of affordable housing.²⁸ A density bonus program allows for a developer to build a taller or larger building than what is currently allowed in the municipal regulations, if a community benefit such as affordable housing is provided.²⁹ Construction and subleasing of accessory apartments can be allowed, such as secondary suites or cottage housing, which are small, portable cottages that can be placed on single-family home lot as secondary unit.³⁰ Zoning can allow developers to construct housing that facilitates conversion to multi-tenant housing (e.g. congregate living).

26 Ball, 2012
27 Ball, 2012
28 Canadian Policy Research Networks, 2012

29 McIntyre, 2016
30 Ball, 2012

Rothesay Zoning Policy

The Rothesay Municipal Plan³¹ outlines housing goals and policies for three types of residential zones: low density, moderate density, and mixed residential. The goals for each residential zone is to ensure the character of the existing neighbourhood is maintained, a variety of housing types are available, and affordable housing is considered in large scale developments. Policy 5.2.3 (h) encourages innovative housing developments that meet the general intent of the plan, if that housing option does not already exist in the community³². This policy could allow the municipality to implement innovative housing options. In the low density residential zone, Policy 5.2.3 (q) allows for an additional dwelling unit in a single detached dwelling for a family member (e.g. elderly relative)³². This would not allow an unrelated caregiver to live in residence (e.g. secondary suite).

In the moderate density zone, Policy 5.3.3 (b) specifies four allowable housing types: single-family detached, two family dwellings, townhouses and garden homes³³. Townhouses are units that are between one to three floors in height and attached to no more than eight similar dwelling units. Garden homes are homes and lots owned by individuals, but a portion of the development is owned

and maintained by a management company. Policy 5.3.3 (j) specifics that senior housing will be considered in moderate-residential zones³⁴. However, in the zoning by-law senior housing is not considered a separate category. The only housing type specific to senior residents is a temporary suite, retirement complex, and nursing home. Temporary suites are allowed in most residential zones, while retirement complexes or nursing homes are only allowed in the Millennium Park Zone (MP) or Institutional - Major Zone (INSMA; see Map 2).





A retirement complex, as defined in the Rothesay Zoning Bylaws, can provide a variety of living arrangements including: independent living units, assisted living units, and nursing home care. Some residential zones (R2, R3, and R4) allow for a greater variety of housing than single family homes including: duplexes, semi-detached, garden homes, apartment buildings, condominium buildings, and townhomes.³⁵ These housing types offer smaller unit size and tend to require less maintenance which could make them desirable for seniors.

Map 2 *Zones allowing senior housing* ³⁶

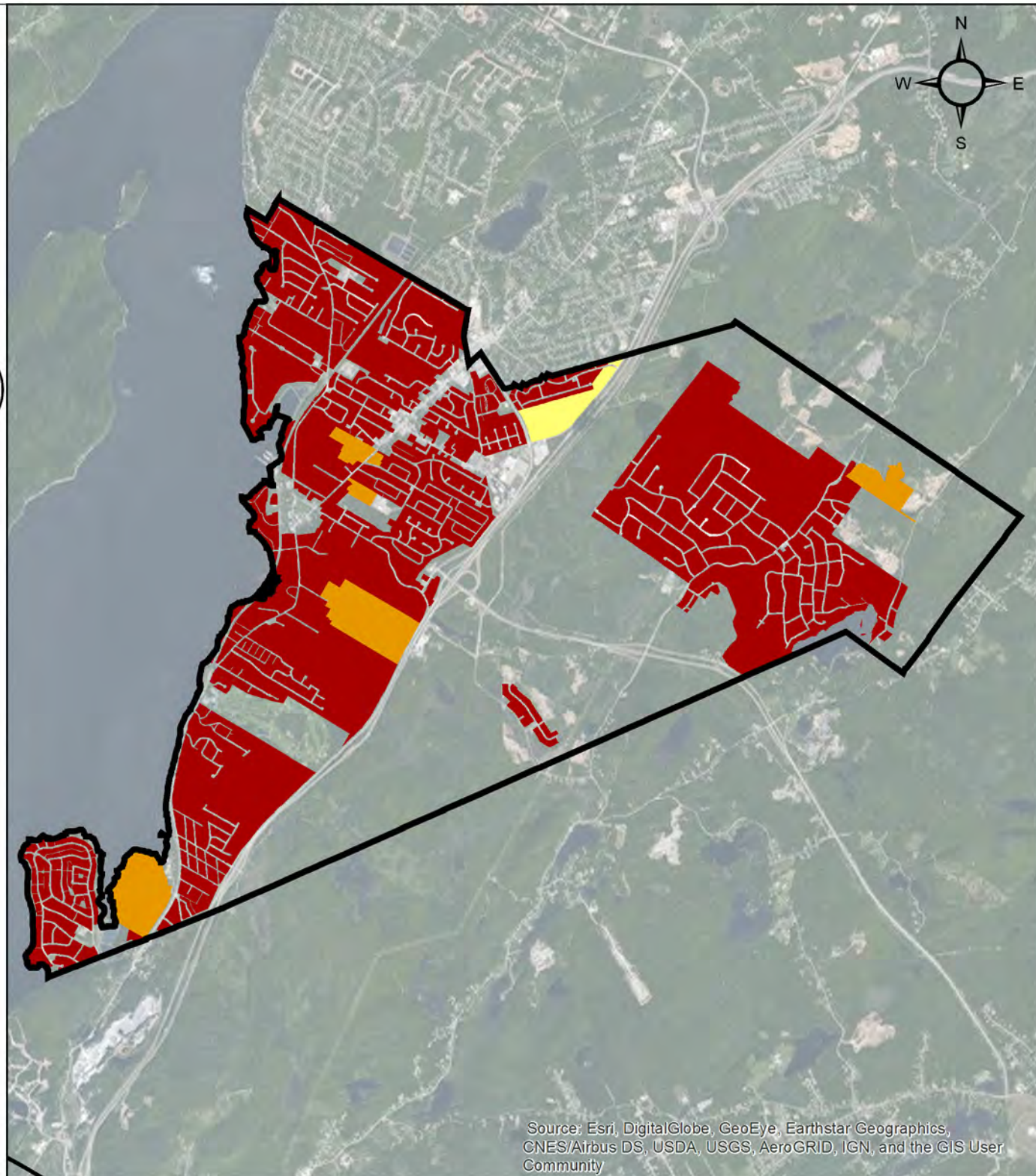
Rothsay

*Zones Currently Allowing
Senior Specific Housing*



-  Town Boundary
-  Millenium Park Zoning
-  Residential Zoning
-  Institutional Zoning

0 1 2 4 KM



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics,
CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User
Community

2.3.2 Care Continuum & Universal Design

Seniors may find it challenging to remain in single detached dwellings due to changes in health, required maintenance, or a desire for increased socialization.^{37,38} To age in place, seniors housing will require adjustments as they age. A 'care continuum' can assist in identifying the various levels of care that seniors of different physical capacities and ages will require, and correlating a type of housing that would suit their needs (see Figure 3). A care continuum typically ranges from home care services to nursing facilities. Home care services, also known as non-medical home care, in-home care and private-duty care, entails care services provided by caregivers to seniors at their home.³⁹ Caregivers can assist seniors with personal care (e.g. bathing, eating, dressing) and other day to day tasks such as scheduling health care appointments and refilling prescriptions. If a higher level of care is required, full-time care can be provided. Independent living communities are typically designed for active seniors, and entails living in a multi-unit apartment or condominium with other seniors.⁴⁰ This style of housing allows for increased socialization and less stress regarding home maintenance and repair.

Memory care programs can be provided as specialty

care for Alzheimer/dementia patients by caregivers specifically trained to work with memory loss in adults. Continuing Care communities offer a wide variety of care options, making them desirable for seniors who are currently active but are preparing for any potential future changes to health or lifestyle. Care options range from independent living apartments, assisted living, memory care, rehabilitation and hospice services.

A critical component to the development of new housing stock is the concept of universal design. Universal design can be defined as a built environment that can be accessed and used to the greatest extent possible by everyone, regardless of age, size, and physical capacity.⁴¹ A key component of the housing checklists created by WHO, PHAC, and the Province of New Brunswick is the incorporation of universal design.⁴² Principles of universal design include:

- Equitable use (equitable access for everyone);
- Flexibility in use (design of house or product has considered a wide range of individual abilities throughout the life cycle of occupants);
- Simple and intuitive (design is easy to comprehend, regardless of user's cognitive abilities);
- Perceptible information for elements of the home

(information can be conveyed visually, audibly, or tactilely);

- Tolerance for error (design considerations include safe features);
- Low physical effort (limit the strength required to access spaces, controls and products); and
- Size and space for approach and use (designing for appropriate size and space to allow all residents to reach, see and operate elements of the home).³³

The City of Calgary's *Universal Design Handbook*³⁴ offers an example of a comprehensive universal design guide. The handbook includes a section on how design professionals and developers can benefit from including universal design in their projects (see Section 2.5 of the handbook). Additionally, Calgary created an *Access Design Standards* document which provides examples of how to design new infrastructure that is universally accessible.⁴⁵

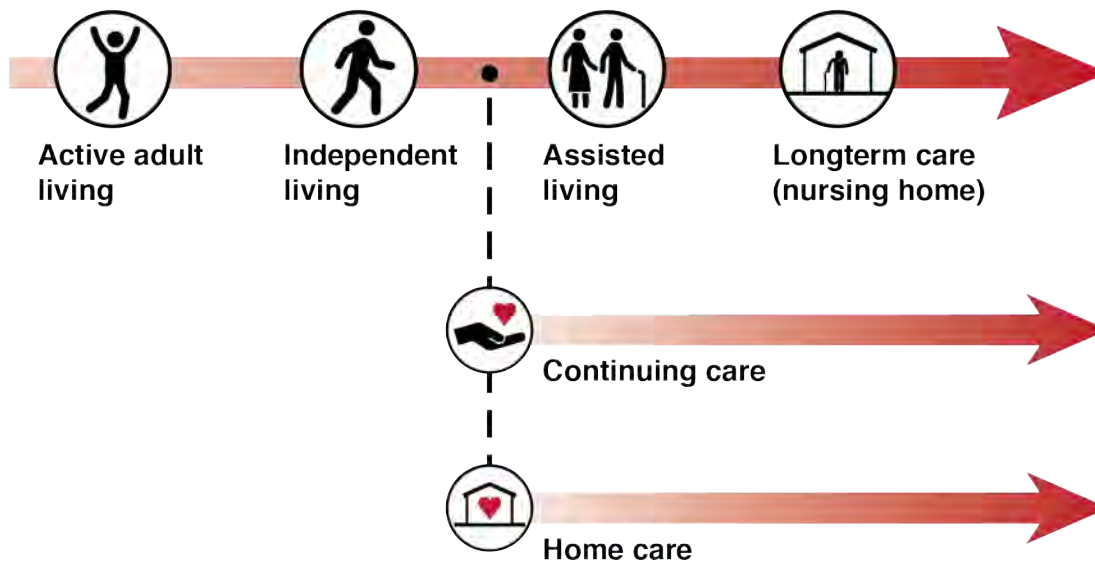


Figure 3 *Continuum of Care*

43 Canada Mortgage and Housing Corporation, 2016b

44 City of Calgary, 2010

45 City of Calgary, 2017

2.3.3 Innovative Housing Options

At a broad level, innovative senior housing can include secondary suites and bi-family units (to allow for a senior to remain close to family members), shared housing and retirement communities (to allow for increased social interaction), and congregate housing (to provide increased access to care services). Although not an exhaustive list, the following housing options can provide Rothesay with key background information to assist in the development of a senior housing plan.

Secondary Suites

Secondary suites (also referred to as accessory apartments, granny flats, or in-law suites), are private, separate units within an existing dwelling.⁴⁶ Secondary suites can be implemented to allow for a gentle form of densification without negatively impacting the existing character of a neighbourhood. Unit sizes range from 400-970 square feet.⁴⁷ Benefits to the tenant of a secondary suite include increased affordability and the option to live in a low-density neighbourhood. Rents in secondary suites are often lower than conventional rental apartments, and are relatively easy to implement without government assistance. A senior homeowner can benefit from an

additional income stream, companionship, and home maintenance support.⁴⁸ Single family dwellings are viewed as being the most appropriate use to accommodate a secondary suite.⁴⁹ Overall, the community benefits from:

- A modest population increase;
- Maintaining the neighbourhood character;
- Increased density in existing neighbourhoods;
- Use of existing infrastructure; and
- Potential for socio-economic diversity.⁵⁰

A CMHC⁵¹ study found that to implement secondary suites:

- Participants must be compatible with each other, and formalize payment arrangements in advance;
- Participants need to have access to privacy, adequate lighting and storage areas, as well as control over heating and water.

The following regulations need to be considered when implementing secondary suites: zoning, building code, unit size, parking, inspections and licensing.⁵² Secondary suites must abide by the building code, in particular,

entrances (e.g. separate entry door), fire safety (e.g. adequate fire resistance), height, moisture, and natural light. Parking requirements may also be necessary. Inspections may be difficult if provincial legislation only allows municipal officials to inspect secondary suites that are a potential threat to health and safety.⁵³ Regulation often imposes size limitations (e.g. number of rooms, minimum lot size).⁵⁴

Zoning can allow for secondary suites within single family dwelling zones (e.g. City of Vancouver), low-density residential zones (e.g. City of Edmonton), or only allow suites when immediate family members are occupying the suite (e.g. Province of Quebec). Policy 5.2.3 (q) in the Rothesay Municipal Plan allows for an additional dwelling unit (Secondary Suite) in a single detached dwelling for a family member (e.g. elderly relative)⁵⁵.

Shared Housing

Shared housing involves sharing a large home (i.e. single-family home) with several unrelated people who each have access to their own private living area.⁵⁶ Shared housing allows residents to manage the housing development themselves, sometimes with a resident caregiver available on-site.⁵⁷ Shared housing allows for

increased socialization amongst seniors and can deter social isolation.⁵⁸ It can be a more affordable housing option, while allowing for companionship, independence, and a sense of security.⁵⁹ For the community as a whole, shared housing efficiently utilizes the existing housing stock, and preserves the character of the neighbourhood.⁶⁰

It is important that housemates discuss who will do what in terms of household chores prior to living together,⁶¹ as this is commonly cited as being a point of contention with cohousing. It can also be a timely process to determine who can live together. As a result, not-for-profit agencies have formed to assist in matching home providers with home seekers. Agencies conduct interviews, home visits, obtain references, and proof of income from home seekers.

In the CMHC study,⁶² residents indicated some considerations for this type of housing:

- Potential residents should apply and be screened to ensure compatibility with the group; and
- Sites should be close to shops and services.

Shared housing and secondary suites (rental housing) can be encouraged by municipalities through working with

53 Canada Mortgage and Housing Corporation, 2017a
54 Canada Mortgage and Housing Corporation, 2017a
55 Rothesay, 2010a, p. 14

56 Canada Mortgage and Housing Corporation, 2001
57 Canadian Cohousing Network, 2016
58 Reddekop, 2016

59 Seniors Resource, 2017a
60 National Shared Housing Resource Centre, 2017
61 Senior Resource, 2017a

62 Canada Mortgage and Housing Corporation, 2001 p. 22

the development community to provide tax exemptions, streamlined approvals, redevelopment, and alternative development standards.⁶³ Alternatively, a co-op or housing authority can be established to manage the house. Shared housing on single-family lots and allowing unrelated people to sublet rooms in single-family neighbourhoods can provide income, security, and companionship.⁶⁴ Shared housing can be operated by an individual or organization, but policy can allow non-profits, churches and schools to create shared housing developments as well.

Planned Retirement Communities

Retirement communities provide seniors with independent living, support services, and recreational spaces.⁶⁵ Support services offered typically include housekeeping services, personal support, and health care.⁶⁶ Amenities and recreation spaces can include indoor swimming pools, fitness equipment, group exercise rooms, spas, lecture halls, libraries, cyber cafes, pubs, chapels, and arts/crafts studios. Residents pay an entry fee and a monthly service charge for the wide array of services.

Planned retirement housing allows for maintenance

of neighbourhood character, a supportive physical environment, access to services, and affordability.⁶⁷ However, seniors considering moving to a planned retirement community may have concerns about separation from the rest of the community which can be perceived as isolating. This can prevent seniors from considering it as an option. To break down the barrier, outpatient/home-based care services can be offered to residents in the municipality that are not currently living in the retirement community. Recreational amenities within the retirement community can also be made available to residents of the municipality for a fee similar to a YMCA membership.

Residents of this type of housing recommend the following:

- Focus on quality of dwelling units;
- When showing units, include information regarding communal areas;
- 24-hour security should be required; and
- Design for a broad arrangement of mobility issues (e.g. low tubs, walk-in showers).⁶⁸

Retirement housing can be implemented through zoning, policy incentives, and dwelling targets.⁶⁹ In

Rothsay, a Planned Retirement Community (i.e, retirement complex or nursing home) is allowed in the Millennium Park Zone (MP) or Institutional - Major Zone.⁷⁰

Congregate Housing

Congregate housing is a shared living environment that allows seniors and those with disabilities to live independently in private apartments while providing access to supportive services and socialization (e.g. meals, housekeeping, planned activities and outings, and religious services).^{71,72} Congregate housing is commonly directed to frail or at-risk seniors and adults with disabilities who wish to maintain their independence. This type of housing provides residents with a healthy living environment, a sense of freedom and independence, and potentially helps avoid lengthy hospital stays.⁷³ Often, congregate housing provides residents with a private bedroom, and shared access to a kitchen, dining room, and bathroom.⁷⁴ Although not including full-time care, a housing coordinator provides on-site care to assist with daily activities (i.e. meals, housekeeping). Eligibility requirements may include an application to a local housing authority, age requirement (e.g. 60+), and income requirements.

Residents of this type of housing recommend the following:

- Staff should be from hospitality field, not health care;
- Children of seniors should be sold on the idea of congregate housing;
- Community associations, government agencies, local politicians, and health-care providers should be involved; and
- Services should be easily accessible.⁷⁵

Assisted living environments, similar to congregate housing, can take several forms: publicly subsidized (e.g. seniors pay 70% of their net income), private-pay Registered Assisted Living, and private market.⁷⁶ Policy 5.2.3 (h) in the Rothsay Municipal Plan encourages innovative housing developments that meet the general intent of the plan, if that housing option does not already exist in the community⁷⁷. Congregate Housing does not currently exist within the municipality and could be considered an innovative housing development.

70 Rothsay, 2010b
71 Commonwealth of Massachusetts, 2017
72 Senior Resource, 2017b

73 State of New Jersey, 2013
74 Commonwealth of Massachusetts, 2017
75 Canada Mortgage and Housing Corporation, 2001

76 Office of the Seniors Advocate, 2015
77 Rothsay, 2010a, p.14

2.3.4 Adaptation

The CMHC⁷⁸ produced several studies on housing independence for seniors through housing adaptations. In a study of thirteen Quebec City suburbs, two main housing strategies were identified to assist seniors to age in place. This was done through a literature review, a quantitative analysis of adaptations funded through Quebec's Residential Adaptation Assistance Program (RAAP), a qualitative survey of thirteen seniors with high care needs who adapted their homes, and meetings with occupational therapists and architects involved with the RAAP. First, assistive devices and technical equipment should be added to the homes, and second, existing hallways and entranceways should be modified to improve accessibility.⁷⁹

Participants in the study all had access to caregivers and home care services, had significant accessibility issues (e.g. cane, walker, wheelchair, quadriplegic), and/or suffered from a disease (e.g. multiple sclerosis). The adaptations in the study centered on redesigning bathrooms (e.g. widening door, walk-in shower) and kitchens (e.g. lowering counters/cabinets, sliding drawers and shelves) to improve accessibility. Adaptations were also installed in the bedrooms (e.g. installing a lift,

widening doors). Access to outside areas were improved through installing a ramp or lift. Adaptations were found to take up to five years from the initial funding application to approval of the completed work. Lastly, it was found that funding was limited and did not cover the extent of the housing adaptations necessary. In some cases, respondents had to forego platform lifts or adaptations to some rooms (often the kitchen).⁸⁰

Four steps were identified in the housing adaptation process:

1. Preparation of construction drawings (assisted by occupational therapists, architects).
2. Bidding process for contractors.
3. Approval of the construction drawings and funding submission.
4. Renovations⁸¹

A challenge of adapting the existing housing stock is the cost, time, and ensuring that seniors who choose to remain in their home have the necessary housing supports. However, there are several financial assistance programs (see Section 2.4.1) at the federal and provincial level which can assist with housing retrofits. A priority system

can be implemented to ensure investments target seniors with the highest need on the care continuum.⁸² These investments can ensure less strain on the health care system and governments.

Larger, existing building stock can be subdivided to create smaller, denser units (e.g. duplex). Doing so can create secondary suites, shared housing, and congregate housing units. Adaptation can incorporate universal design principles to render the dwelling space more accessible, while subdividing can lead to improved social cohesion and affordability.

2.4 HOUSING SUPPORTS

The following section identifies the existing financial assistance programs and home care service options available to residents of New Brunswick. This section can help to identify where gaps may exist in the available assistance for seniors looking to remain in their homes.

2.4.1 Financial

There are financial resources available that can assist Rothesay in implementing innovative housing options and adaptations to existing housing. CMHC offers several affordable housing programs to the Province of New Brunswick, including the Federal/Provincial Repair Program. The program provides forgivable loans (i.e. the entirety or portion of the loan can be forgiven or deferred for a period of time once certain conditions are met)⁸² to homeowners to undertake accessibility modifications for seniors or persons with disabilities.⁸³ In the study conducted by CMHC of 13 Quebec suburbs, two financial assistance programs were utilized. CMHC's Home Adaptations for Seniors' Independence (HASI) Program provided up to \$3,500 in assistance for low income seniors (65+) to do minor adaptations to their home.⁸⁴ A Residential Adaptation Assistance Program (RAAP) was administered through the Société d'habitation du Québec,

which provides assistance regardless of income level. The program provides financial assistance of up to \$16,000 for housing adaptations that eliminate accessibility barriers.

Programs similar to Quebec's RAAP are available from the Province of New Brunswick. The most similar program is the Rental Residential Rehabilitation Assistance Program, which provides financial assistance to property owners or landlords for mandatory repairs (i.e. structural, heating, electrical, fire safety, and plumbing) to apartments that are rented to low income households.⁸⁵ Non-profit corporations or housing cooperatives that are not receiving government housing assistance may also apply. A Seniors' Home Renovation Tax Credit is available to assist in the cost of housing adaptation. The Tax Credit is a refundable personal income tax credit for seniors (65+) of up to \$10,000, with no income requirements.⁸⁶

2.4.2 Home Care

Affordable and easily accessible home support services can assist seniors to age in place. The Province of New Brunswick offers an Extra Mural Program (EMP), to provide an alternative to hospital admissions and facilitate early discharge from hospitals by providing services at home.⁸⁷ The EMP interdisciplinary team, including physicians,

registered nurses, respiratory therapists, social workers, dietitians, and therapists, provides the following health care services: health education, palliative care, supportive/maintenance care, and rehabilitation services.⁸⁸

The EMP also offers a Home Oxygen Program, which provides acute oxygen services and long term services for seniors. To be eligible, residents must live within the Province and have a valid Medicare card. To enhance the EMP, a Rehabilitation and Reablement (R&R) program was developed for seniors, which delivers intensive care to a patient's home or special care home, with the goal to rehabilitate the senior to allow them to remain living in their home.⁸⁹

New technologies can assist with senior home care. CareLink is a remote monitoring system allowing family caregivers to monitor elderly relatives using in-home wireless sensors⁹⁰. Sensors are placed at the bed or door, and cameras allow for real-time monitoring and communication between seniors and their family. This allows for the senior to stay in their home safely while providing family and caregivers with peace of mind.⁹¹ Other organizations have begun to develop smart technologies (e.g. lighting cues to prevent falls, pressure sensitive mats to monitor sleep abnormalities)⁹² which can

allow seniors to remain in their homes.

88 Province of New Brunswick, 2017b
89 Province of New Brunswick, 2017a
90 Province of New Brunswick, 2015

91 Province of New Brunswick, 2015
92 Canada Mortgage and Housing Corporation, 2011b

2.5 CASE STUDIES

The following section identifies Canadian communities with innovative age-friendly initiatives which can provide ideas for Rothesay when implementing their own age-friendly initiatives. Case studies were not used as precedent. The case studies include: Maple Ridge, British Columbia; Kingston, Ontario; North Vancouver, British Columbia; City of Vancouver, British Columbia, and Waterloo, Ontario. It is acknowledged that the case studies contextually differ from Rothesay, but may assist with identifying how various communities have approached incorporating age-friendly housing principles, and how a municipality can encourage aging in place through planning policy, funding, and program implementation.

Maple Ridge, British Columbia

The community of Maple Ridge went beyond the eight WHO domains and added a ninth domain: emergency preparedness in the face of disasters.⁹³ The ninth domain can relate to New Brunswick, as the Province often experiences large volumes of snowfall as snowstorms and blizzards hit Atlantic Canada.⁹⁴ While large volumes of snow can temporarily immobilize communities, seniors are particularly vulnerable.⁹⁵ Municipalities must ensure safety of its older residents through adequate emergency

plans that prepare them for natural disasters (i.e. fires, earthquakes, floods, extreme winter conditions).⁹⁶

Maple Ridge's Age-Friendly Community Initiative⁹⁷ provides a detailed assessment of nine domains by identifying community strengths, current initiatives, and providing recommendations/action items. With respect to housing, the Maple Ridge Age-Friendly Community Initiative advocates for more support from the provincial government for affordable housing, acknowledges the benefits of companionship that pets can provide to seniors, and advocates for apartment buildings to allow pets. Maple Ridge recommends developing bylaws that would make multi-level buildings accessible, creating building incentives for more affordable housing, and forming a Seniors Housing Coalition to better assess the housing needs of seniors in the community. As of early 2017, implementation of recommendations were ongoing.⁹⁸

Kingston, Ontario

The City of Kingston has completed two stages of their age-friendly process. Stage one (completed in 2014)⁹⁹ involved identifying community assets through the lens of the eight WHO domains. Stage two (completed in 2016)¹⁰⁰ is a concrete action plan which links the recommendations

made from stage one to future initiatives. The recommendations include:

1. Collaborating with local developers to inform residents about housing options which would allow for aging in place;
2. Providing financial support for renovation programs;
3. Investigating incentives to encourage developers to develop homes and apartments according to universal design standards;
4. Implementing new form-based zoning;
5. Allowing for a greater variety of housing type through new zoning; and
6. Considering universal design when developing urban design policies.¹⁰¹

To date, the City has undertaken the following initiatives to meet the recommendations:

1. The development of more one bedroom affordable units for seniors and rent-geared-to-income housing;
2. Kingston Fire and Rescue provides senior specific fire safety programs to help seniors maintain fire safety in their homes;

3. Funding to assist residents in creating secondary suites with affordable rents;
4. Permitting second residential units in specific areas through the existing zoning by-laws; and
5. An analysis of how senior citizen residences, secondary suites, group homes and care facilities can be addressed in an upcoming zoning by-law.¹⁰²

North Vancouver, British Columbia

North Vancouver used public-private partnerships to implement 76 below-market seniors' rental housing. North Vancouver partnered with The Army, Navy, and Air Force Veterans in Canada Association Senior Citizens Housing Society (ANAVETS), BC Housing, the City of North Vancouver, and the British Columbia Provincial government.^{103,104} The Provincial government provided construction financing, ANAVETS provided the land, and a company called Intracorp provided construction services. The City of North Vancouver implemented density bonusing to allow for a larger development than what would originally be allowed, and waived \$211,000 in development cost charges.¹⁰⁵ The rental housing includes adaptable features such as adjustable countertops, wide doorways, and grab bars.¹⁰⁶ Residents benefit from

¹⁰⁰ City of Kingston, 2016

¹⁰¹ City of Kingston, 2014

¹⁰² City of Kingston, 2016

¹⁰³ BC Government New, 2013

¹⁰⁴ Federation of Canadian Municipalities, 2015

¹⁰⁵ BC Government New, 2013

monthly rent subsidies provided through BC’s Shelter Aid for Elderly Renters program.¹⁰⁷

Vancouver, British Columbia

The City of Vancouver implemented a bonus incentive program which encourages developers to construct housing types the City identified to be in demand. For example, the City promoted development where a lack of services existed, promoted low rise (4-storey) development where a void existed, and promoted townhouse style development.¹⁰⁸ This incentive program allowed the city to create bonus incentives that were applied to specific areas of the city. This allowed the planning department to create different incentives in different areas, rather than applying the incentive program throughout the entire city. Bonus incentive programs are voluntary, and used to entice developers into providing additional elements for the community in exchange for increased development rights.

in 2012.¹⁰⁹ To achieve this, the city developed an age-friendly committee, created an action plan, and partnered with a local university to assist in improving the plan. The City found that home modification programs and in-home support services were essential for aging residents, along with retirement facilities close to city centres and amenities.¹¹⁰ Seniors expressed a desire for retirement facilities close to city centres and amenities. As a result, the City focused on developing an inventory of sites that could be developed for affordable rental housing, and developed communication and promotion plans for the available Home Support Services. The City developed a series of home support services to assist seniors, including community meals at a local recreation centre, grocery shopping done by volunteers (for the cost of \$9 per trip), home maintenance (\$15/per hour), telephone reassurance (when feeling socially isolated), and transportation (\$4.50 for one-way ride within Waterloo).¹¹¹

Waterloo, Ontario

Waterloo was recognized as a WHO Age-Friendly city

p. 31 106 Federation of Canadian Municipalities, 2015
107 BC Government News, 2013
108 City of Vancouver, 2016
109 City of Waterloo, 2015a
110 Mayor’s Advisory Committee for Age-Friendly Waterloo, 2013
111 City of Waterloo, 2015b

2.6 PLANNING CONTEXT RECOMMENDATIONS

1. Develop and implement a system of data collection to measure the effectiveness of initiatives (e.g. number of new barrier free units, affordable units, increase in housing diversity).
2. Achieve age-friendly recognition, by following the steps outlined in the *How to Develop your Age Friendly Community* document.
3. Develop an education and outreach campaign to inform residents of the benefits of diverse housing types for the community.
4. Update municipal policy to accommodate diverse, affordable, and accessible housing types.

3. Community Profile

This section assesses Rothesay based on population (i.e. migration, income, dwellings) from 2006 and 2011 Statistics Canada census data. A population projection was developed to determine how the future population will grow based on age cohort.



Photograph from the Town of Rothesay

3.1 POPULATION

Statistics Canada Census data from 1971, 1976, 1981, 1986, 1991, 1996, 2001, 2006, 2011, and 2016 was used to perform population projections for Rothesay.^{112,113,114,115,116,117,118, 119, 120} The population projections used extrapolation and cohort-component techniques. The extrapolation technique uses historic population data, while the cohort-component uses fertility, death, and migration rates for population forecasting.

Extrapolation Projection

The extrapolation technique considers historic population changes to make population projections.¹²¹ In 1998, the former communities of East Riverside-Kinghurst, Fairvale, Renforth, Rothesay, and Wells were amalgamated to form Rothesay.¹²² Given that the extrapolation technique uses historic population data, and that Rothesay is the product of the amalgamation of the former five communities, the populations of these separate communities were combined for the years 1976, 1981, 1986, 1991, and 1996. However, population information for the community of Wells was not found at the census subdivision level and could not be included in the population projection in the same way; an adjustment was made (the growth rate was fixed at 3.6%; for more

information, see Appendix A)

Rothesay's population has increased steadily since 1976, with the exception of 2011-2016 which decreased by 2%. The population is projected to increase by 2.2% in 2021 with a population of 11,926, and increase by another 0.5% in 2026 with a population of 11,989. The projected growth rates are comparable to previous years.

Since the population in 2016 decreased for the first time, it is difficult to say whether this is a “blip” in Rothesay's otherwise upward growth population pattern, or if it indicates a future trend. Future population data needs to be monitored to determine whether or not it is a trend.

112 Statistics Canada, 1977	115 Statistics Canada, 1992	118 Statistics Canada, 2009	121 Klosterman, 1990
113 Statistics Canada, 1982	116 Statistics Canada, 1999	119 Statistics Canada, 2012	122 Rothesay, 2012a
114 Statistics Canada, 1987	117 Statistics Canada, 2004	120 Statistics Canada, 2017	123 Statistics Canada, 2017

		Rothesay			New Brunswick		
Year		Total Population	Population Change	% Growth	Total Population	Population Change	% Growth
Historical	1976	9,696	-	-	677,250	-	-
	1981	10,059	362	3.6%	696,403	19,153	2.8%
	1986	10,434	376	3.6%	709,445	13,042	1.8%
	1991	10,824	390	3.6%	723,900	14,455	2.0%
	1996	11,228	404	3.6%	738,133	14,233	1.9%
	2001	11,505	277	2.4%	729,498	-8,635	-1.2%
	2006	11,637	132	1.1%	729,997	499	0.1%
	2011	11,892	255	2.1%	751,171	21,174	2.8%
Projected	2016	11,659	-233	-2.0%	747,101	-4,070	-0.5%
	2021	11,926	267	2.2%	745,823	-1,278	-0.2%
	2026	11,989	63	0.5%	746,626	803	0.1%

Table 2 Comparing historic population changes between Rothesay and New Brunswick. This Table also includes the 2021 and 2026 projections using the extrapolation technique.^{124, 125, 126, 127, 128, 129, 130, 131, 132}

Cohort-Component Projection

A cohort-component projection was used to model the population for Rothesay to the year 2026. This was achieved using 2001, 2006, and 2011 Statistics Canada Census data.^{133, 134, 135} Although population and dwelling counts have been released for the 2016 Census, the population breakdown of age and sex cohorts will only be released after the submission of this report. As such, the year 2016 is also treated as a projection. There are discrepancies between the population numbers found using the extrapolation technique and the cohort-

component technique. The cohort-component model projects a much higher population, which may not reflect future population trends. However, it is useful as it provides a demographic breakdown by age and sex.

p. 35 124 Statistics Canada, 1977 127 Statistics Canada, 1992 130 Statistics Canada, 2009 133 Statistics Canada, 2004
125 Statistics Canada, 1982 128 Statistics Canada, 1999 131 Statistics Canada, 2012 134 Statistics Canada, 2009
126 Statistics Canada, 1987 129 Statistics Canada, 2004 132 Statistics Canada, 2017 135 Statistics Canada, 2012

Historical Population Information 2001-2011

Rothsay had a large population within the 10-19 and 40-59 age cohorts. Statistics Canada officially categorizes baby boomers as individuals born between 1946-1965 and the echo generation (Generation Y, or more commonly known as Millennials)¹³⁶ as individuals born between 1972-1992.¹³⁷ These two generations can help explain the population trends for Rothsay in 2001 and the gradual upward demographic shifts by 2011 (Figure 4).

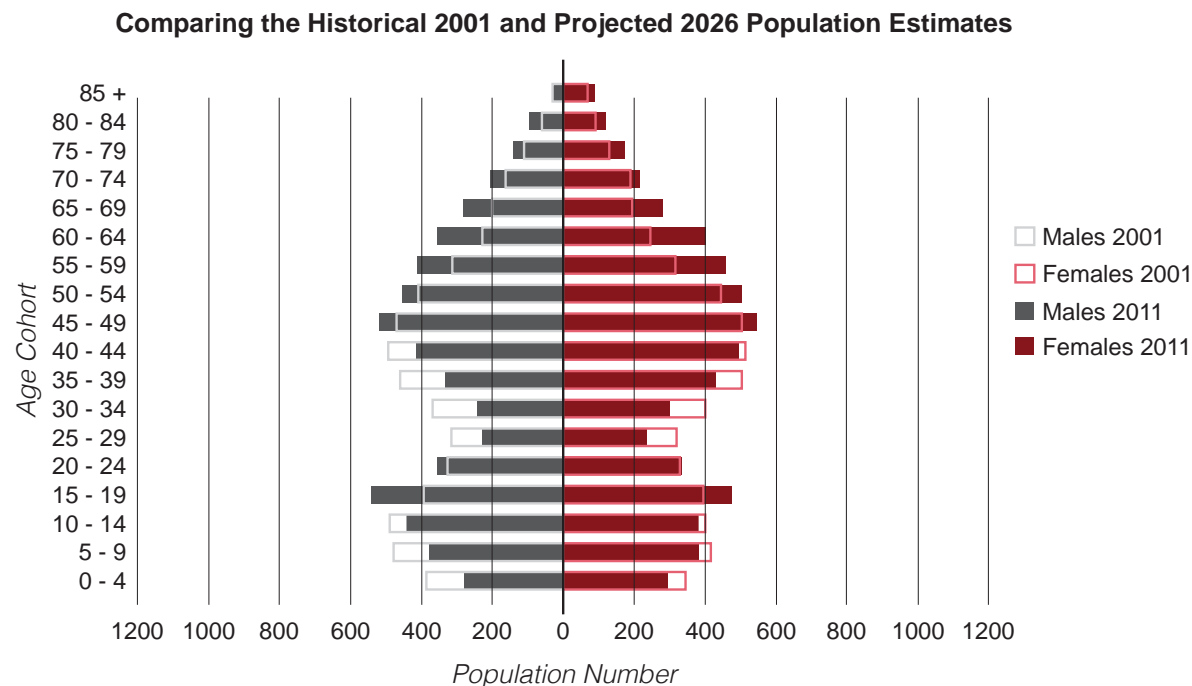


Figure 4 Comparing historical 2001 and 2011 population in Rothsay (Statistics Canada 2001, 2011)

Population Projection Scenarios

The cohort-component technique considers fertility, mortality, and migration rates, all of which can cause population fluctuations.¹³⁸ Fertility and mortality depend on the biology of the residents, and were calculated using fertility rate tables¹³⁹ and life tables for males and females in New Brunswick. These are fixed numbers that were gathered from Tables found from Statistics Canada.^{140,141} Migration rates however, are a fluctuating component of the model that can be increased or decreased to show

different population scenarios. Square Peg Consulting used low, average, and high migration rates to provide a low, average, and high population projection for Rothesay.

The net migration rate for Rothesay was calculated by dividing the net migration from each census year by the expected population for the earlier census year (see Figure 5). A negative number indicates a population out-migration (bars on the left); a positive number indicates a population in-migration (bars on the right). Seniors had high in-migration rates between 2001-2011.

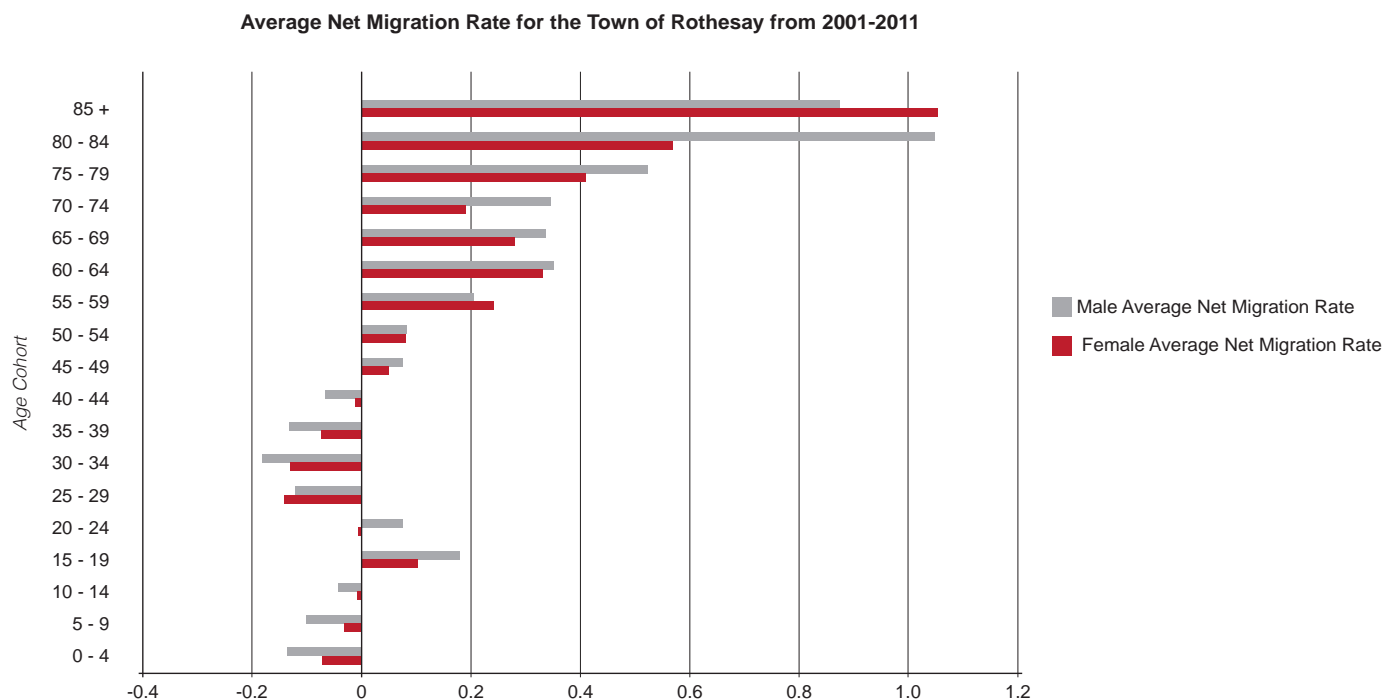


Figure 5 Migration rates of Rothesay's population from 2001-2011 (Statistics Canada, 2004, 2009, 2012)

p. 37 138 Klosterman, 1990
139 Statistics Canada, 2015a
140 Statistics Canada, 2015b

Low Population Scenario

The low population scenario was calculated using low migration rates (see Figure 6), which were chosen based on the minimum value between the migration rates in 2001-2006, and in 2006-2011. The low scenario demonstrates the most out-migration which results in slower population growth. The low scenario projects an increase of the 65+ demographic. Youths aged 19 and under are projected to decrease by approximately half their numbers. The 20-64 age demographic remains relatively steady until a projected decrease from 2021-2026.

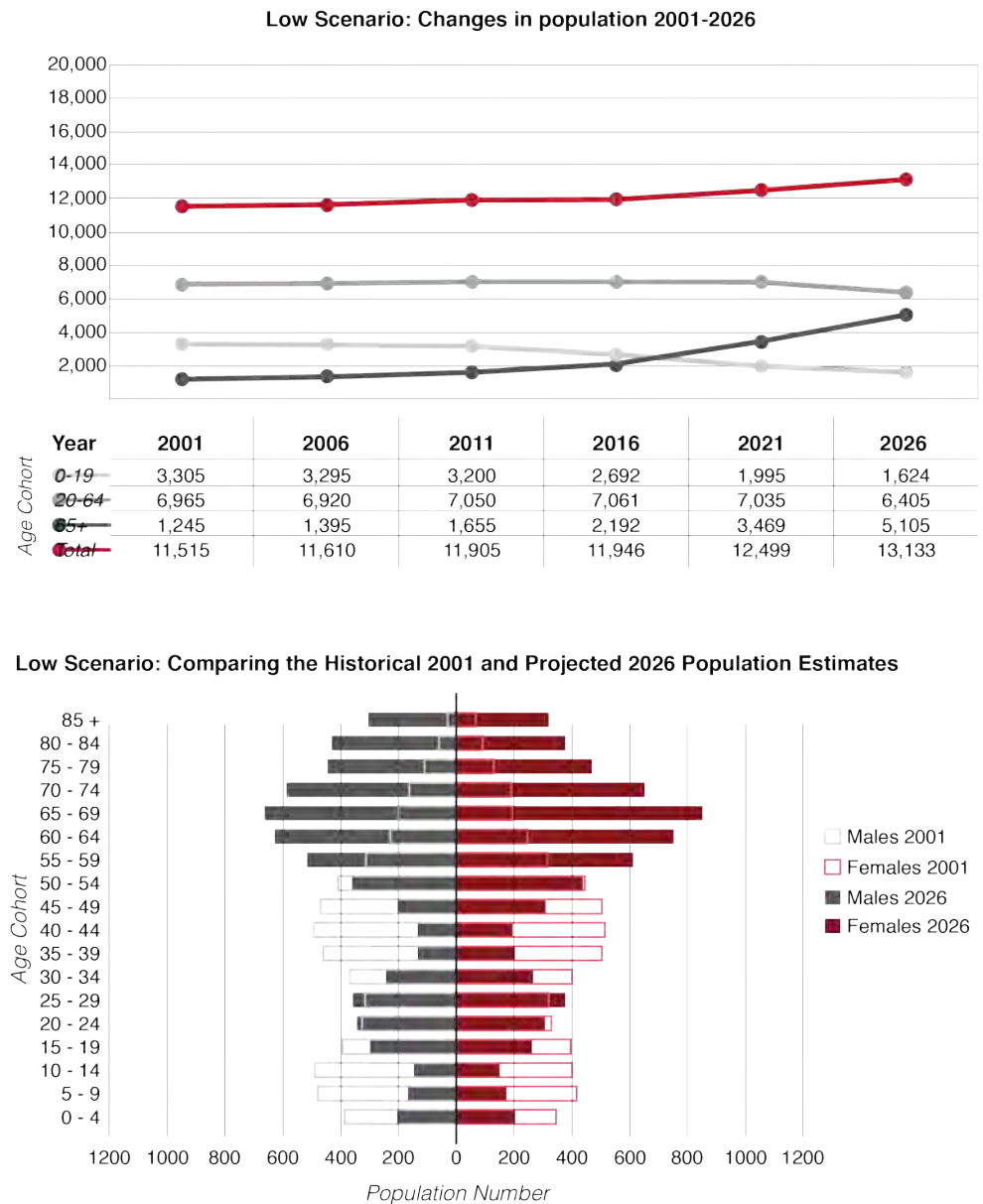


Figure 6 *Low Scenario: Showing the population changes from 2001-2026 with a comparative population pyramid (Statistics Canada, 2004, 2009, 2012).*

Average Population Scenario

The average population scenario was calculated using average migration rates (see Figure 7). Average migration rates were chosen based on the average between the 2001-2006 migration rate and the 2006-2011 migration rate. The average migration rates include a mix of positive in-migration and negative out-migration. This scenario shows an increasing total population due to an increase in the 65+ demographic. The 20-64 age demographic is projected to increase until 2021, when it will begin to decline. Youths aged 19 and under continue to decrease. This is likely due to parents having less children, and the out-migration of the adult demographic.

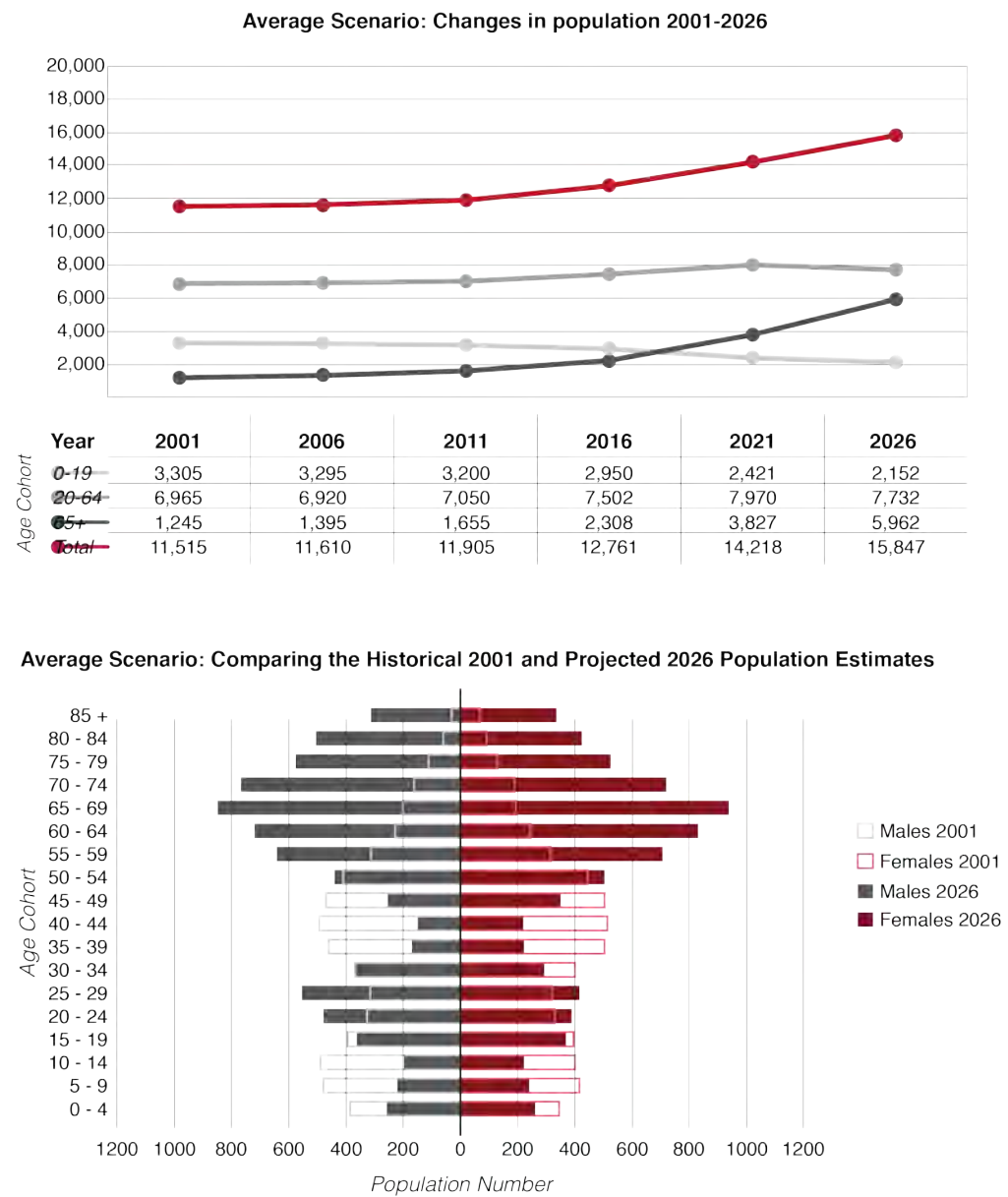


Figure 7 Average Scenario: Showing the population changes from 2001-2026 with a comparative population pyramid (Statistics Canada, 2004, 2009, 2012)

High Population Scenario

The high population scenario was calculated using high migration rates (see Figure 8). High migration rates were chosen based on the maximum value when comparing the migration from 2001-2006, and from 2006-2011. The high migration rates result in positive in-migration. This scenario shows an increasing total population due to the increase in the 65+ demographic. The 20-64 age demographic is projected to increase, although at a slower rate from 2021-2026. Youths aged 19 and under decrease the least in this scenario, likely due to the positive in-migration of their parents in the adult population demographic. However, youths aged 19 and under are still decreasing, likely due to adults not having as many children (if at all). The total population by 2026 is projected to be almost 19,000. This is the least likely scenario given Rothesay's historical population growth (see Table 2, p. 35), which has been increasing slowly, with the exception in 1998 due to the amalgamation of the five communities.

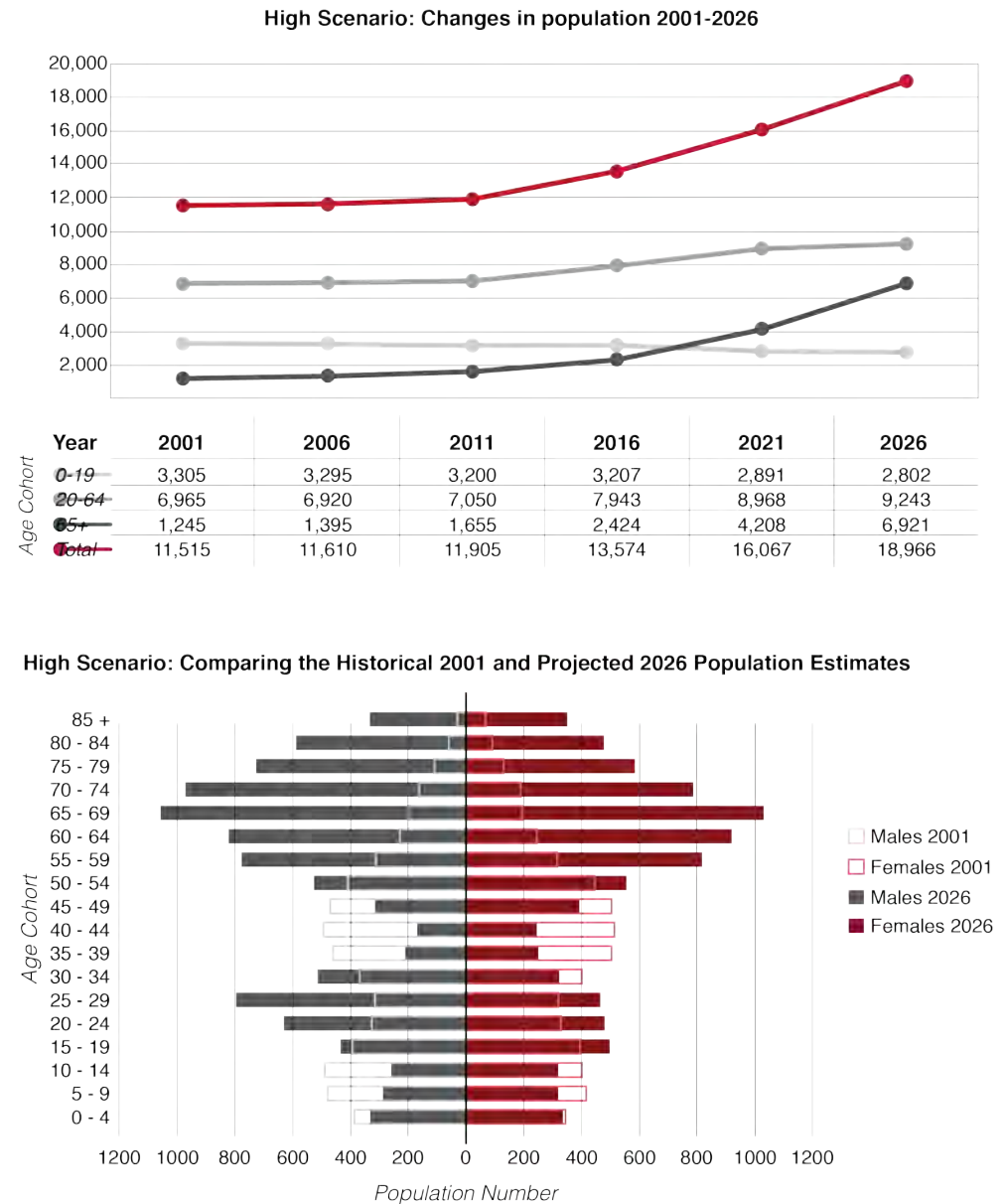


Figure 8 *High Scenario: Showing the population changes from 2001-2026 with a comparative population pyramid (Statistics Canada, 2004, 2009, 2012)*

This report utilizes the average population scenario. Although it shows a higher projected population than what might realistically occur given the current total population trends in Rothesay (see Table 2, p. 35), it is used on the basis that Rothesay is aiming to become a more age-friendly community. An age-friendly community that is friendly for all ages would be expected to encourage in-migration. The low population projection was not chosen on the basis that Rothesay is working to encourage residents to stay in Rothesay, and new residents to move to Rothesay.

The average population projection indicates that a dramatic demographic shift will occur towards an aging senior population (see Figure 7, p. 39). Although a higher senior population is expected due to the aging baby boomer population, the stark contrast between seniors and non-seniors indicates that Rothesay will need to encourage in-migration to ensure Rothesay's prosperity for future generations.

3.2 INCOME

The median household income increased slightly between 2006-2011 in Rothesay for individuals and households, while increasing significantly for individuals and households in New Brunswick (see Table 3). Despite the percent differences between 2006-2011, the median income in Rothesay is consistently higher than in New Brunswick for each category. Although Rothesay has higher median incomes, there is still a presence of low-income (see Figure 9). The percentage of low-income seniors nearly doubled between 2006-2011.

	Rothesay			New Brunswick		
Year	2006	2011	% Difference	2006	2011	% Difference
Individual mean income for individuals aged 15+	\$32,186	\$33,467	4.0%	\$22,000	\$26,582	20.8%
Household median income	\$71,186	\$75,125	5.5%	\$45,194	\$52,835	16.9%

Table 3 Comparison of median incomes between Rothesay and New Brunswick (Statistics Canada, n.d. b,c,h,i)

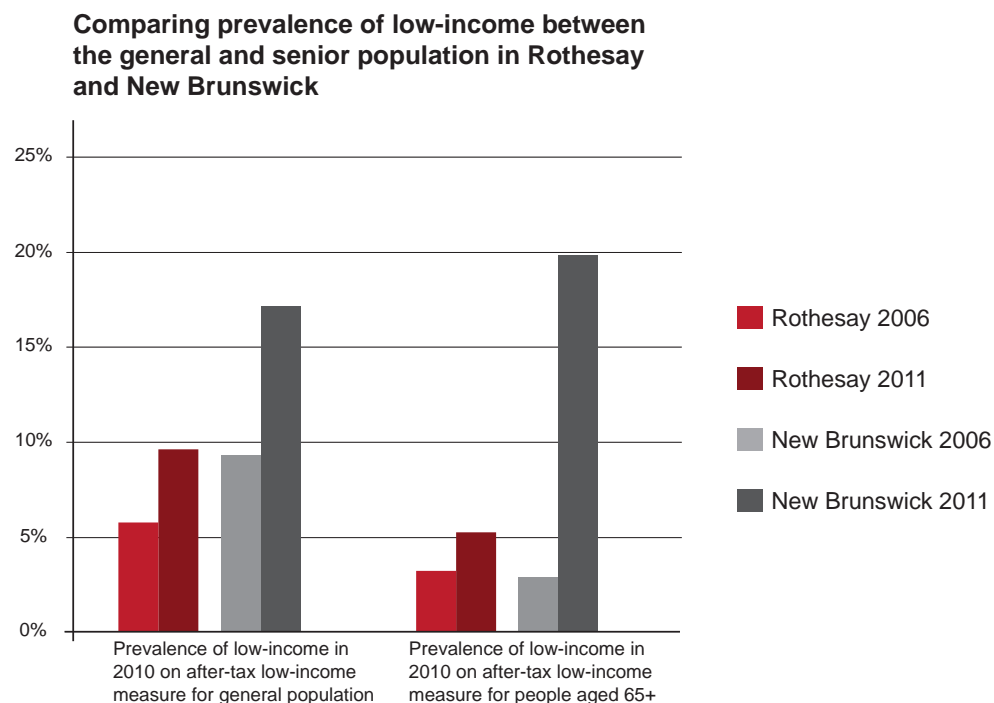


Figure 9 Comparison of prevalence of low-income between Rothesay and New Brunswick (Statistics Canada, n.d. b,c,h,i)

The Median Multiple indicator measures housing affordability in a community by taking the median household income before tax and dividing it by the median house price.¹⁴² The range of scores can be seen in Table 4. In 2006, Rothesay was identified as an affordable community to live in with a score of 2.8 (see Table 5). As of 2011, Rothesay has become moderately unaffordable with a score of 3.1.

Housing is considered affordable if the total income shelter costs is less than 30% of total household income.¹⁴³ Compared to the rest of New Brunswick, more tenant and owner households are living in unaffordable housing (see Figure 10). An analysis of Statistics Canada's 2011 income data reveals that shelter costs have increased more rapidly than household income (see Appendix B for detailed figures). Affordable housing may become a more pressing issue in the future.

Rating	Median Multiple
Affordable	3.0 and under
Moderately unaffordable	3.1 - 4.0
Seriously unaffordable	4.1 - 5.0
Severely unaffordable	5.1 and over

Table 4 Median Multiple Legend

	Median House Price	Median Household Income (before tax)	Median Multiple
Rothesay 2006	\$202,744	\$71,186	2.85
Rothesay 2011	\$234,625	\$75,125	3.12
New Brunswick 2011	\$139,537	\$52,835	2.64

Table 5 Rothesay's Median Multiple Scores (Statistics Canada, n.d. b,c,h,i)

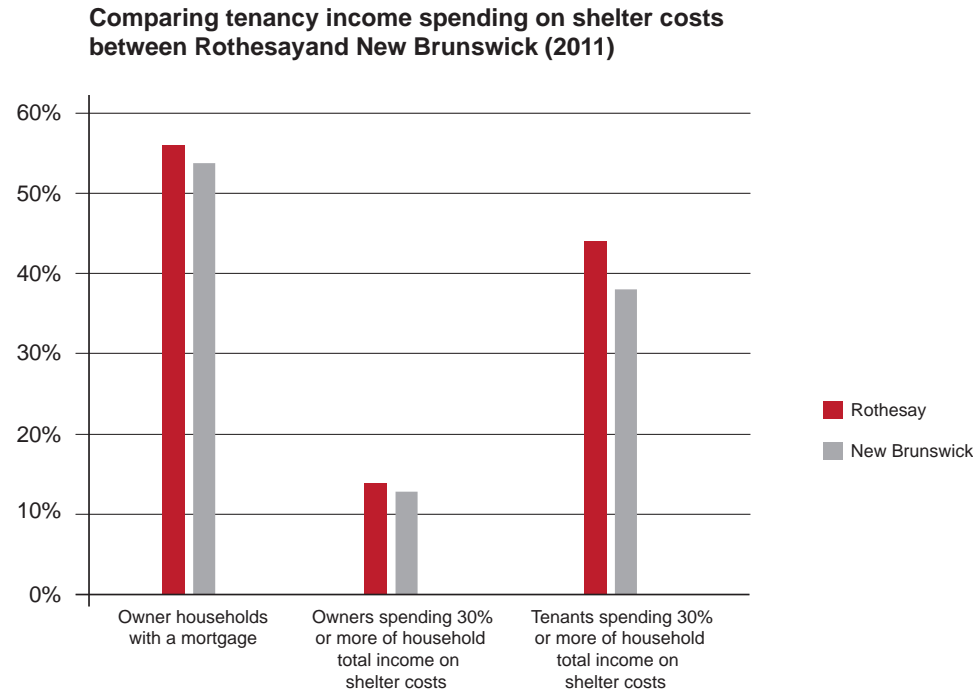


Figure 10 Comparison of prevalence of low-income between Rothesay and New Brunswick (Statistics Canada, n.d. b,c,h,i)

3.3 EDUCATION

An individual's level of education is associated with income levels and social status¹⁴³. A well-educated person can benefit from better housing, employment, and health.

Rothesay has a lower percentage of high school dropouts and a higher percentage of the population with a postsecondary education than in New Brunswick (see Appendix C). There are also more people in the age 15+ general population of Rothesay that have University certificates and degrees (see Figure 11). Rothesay seniors are more educated than seniors in New Brunswick, as 56% of seniors have postsecondary education compared to only 26% of seniors in New Brunswick (see Appendix C)^{144, 145, 146, 147}.

Although Rothesay's population is generally well-educated, there is still a portion of the population that did not complete high school. Some of Rothesay's residents may lack the benefits of better housing, employment, and health. Although Rothesay seniors generally have more education than seniors in New Brunswick overall, there are more seniors that did not complete high school in Rothesay compared to the community's general population (see Appendix C).

144 Alexiu, Ungureanu, and Dorobantu, 2010

145 Statistics Canada, n.d. d

146 Statistics Canada, n.d. e

147 Statistics Canada, n.d. j

148 Statistics Canada, n.d. k

3.4 DWELLING

Rothesay has a higher percentage of housing built before 1980 when compared to New Brunswick. The total housing stock does not change significantly when comparing 2006 to 2011, however the following differences can be observed (see Figure 11):

- Rothesay's older than 1960 housing stock did not change across Census years;
- Rothesay's 1961-1980 and 1991-2000 housing stock decreased between 2006-2011; and
- Rothesay's overall housing stock began to proportionately increase during the 2001-2005 time frame, and at a faster rate than New Brunswick;
- Half of Rothesay's private dwelling stock was built before 1981 (more than 35 years old).

Percentage Change of Housing Stock by Decade Between 2006-2011

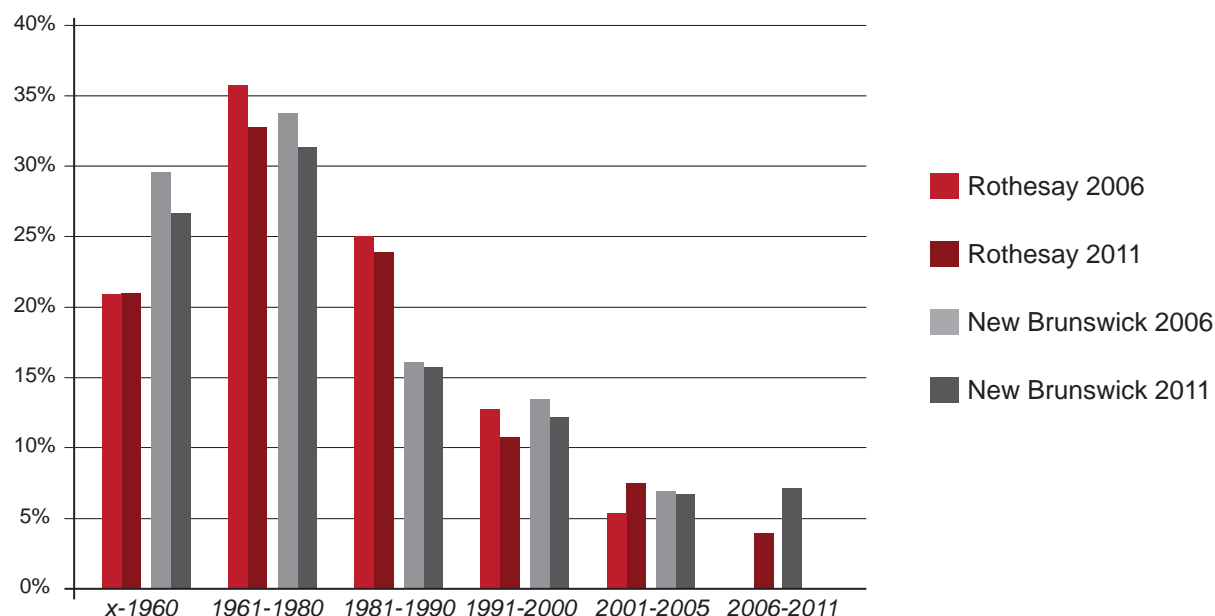


Figure 11 *Comparing change in percentage of housing stock by decade built between Rothesay and New Brunswick (Statistics Canada, n.d. f,g,l,m)*

Although only 285 of 4,545 private homes needed major repairs in 2011, this is an increase of 24% since 2006 (See Table 6). In comparison, there was only a 6% increase in New Brunswick overall. While homeowners can expect to conduct regular maintenance or minor repairs on their buildings, major repairs can become a financial burden. Older housing may require more frequent and more extensive repairs. There was a 23.9%

increase in major repairs needed for dwellings in Rothesay between 2006-2011. This is a substantial increase compared to the 6.4% increase in New Brunswick. Although it was only 55 dwellings that required major repairs, the high percent change between 2006-2011 suggests that substantial major repairs maybe become more frequent in the future. As both population and building stock ages, seniors may be unable

to maintain their homes due to costs, ability to maintain their home, or both.

Over half the homes in Rothesay have eight or more rooms, which is nearly 20% higher than elsewhere in New Brunswick (see Figure 12). The high number of rooms can be a barrier to aging in place, since upkeep, repairs, and accessibility can be challenging in larger homes as found in the ASHRA report.¹⁵³

	Rothesay				New Brunswick			
	2006	2011	Difference	% Difference	2006	2011	Difference	% Difference
Total number of occupied private dwellings by condition of dwelling	4,320	4,545	225	5.2%	295,955	314,035	18,080	6.1%
Only regular maintenance or minor repairs needed	4,090	4,255	165	4.0%	267,155	283,385	16,230	6.1%
Major repairs needed	230	285	55	23.9%	28,800	30,650	1,850	6.4%

Table 6 *Comparison of private dwelling conditions between Rothesay and New Brunswick (Statistics Canada, n.d. f,g,i,m)*

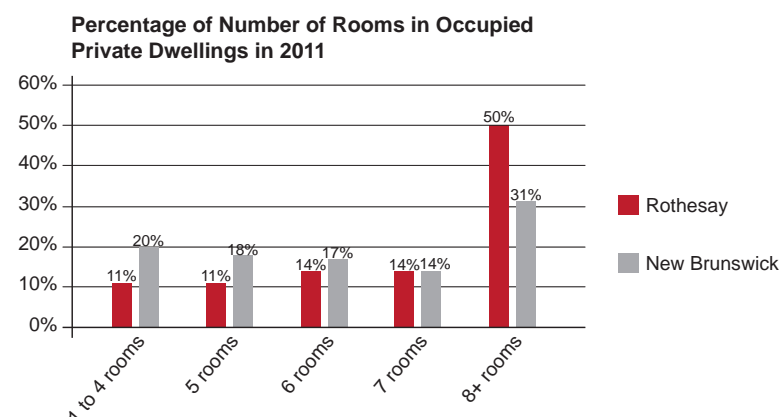


Figure 12 *Comparing the percentage of number of rooms per private dwelling between Rothesay and New Brunswick (Statistics Canada, n.d. f,g,i,m).*

Rothestay and New Brunswick have an inverse relationship for housing tenancy. From 2006 to 2011, Rothestay experienced more growth (by percent difference) in renter population, while New Brunswick experienced more growth in homeownership (see Table 7). While homeownership remains the main housing tenancy in Rothestay, the higher percent difference in the number of renters indicates a growing demand for rental units. Research has shown that seniors prefer rental over homeownership as they age.¹⁵⁴

Statistics Canada defines primary household maintainers as the person identified in the Census questionnaire as the one paying rent or mortgage in the household¹⁵⁵. The majority of Rothestay households have primary household maintainers in the 45-56 age range (see Figure 13). This implies that household maintainers in 2016 will be in the 50-59 age range -- nearly becoming part of the senior demographic. Compared to Rothestay, New Brunswick primary household maintainers are between 35-54 years old (see Figure 13). Rothestay has more homeowners in the 35-44 and 45-54 age cohorts than in New Brunswick overall.

	Year	Owner	Renter
Rothestay	2006	3,635	675
	2011	3,795	745
	# Difference	160	70
	% Difference	4.4%	10.4%
New Brunswick	2006	223,370	71,235
	2011	237,570	74,670
	# Difference	14,200	3,435
	% Difference	6.4%	4.8%

Table 7 Comparing changes in home tenancy between Rothestay and New Brunswick in 2006 and 2011 (Statistics Canada, n.d. f,g,l,m).

Percentage of private households by age group of primary household maintainers in 2011

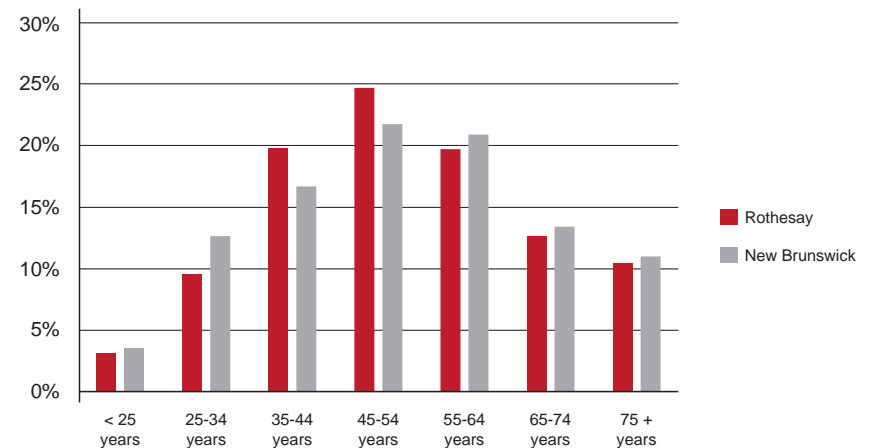


Figure 13 Comparing age of primary household maintainers in Rothestay and New Brunswick (Statistics Canada, n.d. f,g,l,m).

This section provided population growth scenarios and a community profile that examined education, income and dwellings. Despite a population decline from 2011-2016, both population projection models predict a population increase. A forecast is not a certainty, it is a prediction. Our research predicts that there will be a dramatic shift in Rothesay's demographics in the near future.

Rothesay residents are more educated, have higher incomes, and have more expensive, larger homes compared to New Brunswick overall. Despite being considered "affordable" by the median multiple indicator in 2006, Rothesay is now considered "moderately unaffordable" as of 2011. There has been a slight decrease in homeownership and a slight increase in home tenancy between 2006-2011, which may continue in the future.¹⁵⁶ Given that seniors tend to want to downsize, Rothesay will need to ensure affordable, diverse housing options are available for seniors.

3.5 COMMUNITY PROFILE RECOMMENDATIONS

1. Encourage in-migration of different age cohorts to maintain a balanced age demographic.
2. Develop an affordable housing strategy as outlined in the Affordable Housing in Rothesay discussion paper (2013).¹⁵⁷
3. Monitor older housing stock for instances of major repairs.

4. Housing Analysis

The housing analysis consists of a six part housing stock assessment for Rothesay. This includes an analysis of the vacant residential land and developed residential land, to determine overall housing trends.



4.1 HOUSING STOCK ANALYSIS

The population projections discussed in Section 3.0 consider three possible growth rate scenarios for Rothesay. Although each scenario is possible, Square Peg Consulting assumed the average growth rate scenario for the housing needs analysis. The average growth rate was used to show the most realistic population scenario, considering historic population growth. All data was taken from CMHC and Rothesay's GIS Files (accessed from January-February 2017).¹⁵⁸

Rothesay has 5,796 registered land parcels within the town's 35.48 km² boundary.¹⁵⁹ Rothesay's zoning classifications determine the permitted uses, and apply to each land parcel (see Map 3).

Residential Development Evaluation

Rothesay has 4,715 land parcels zoned for residential use, including vacant and developed. The housing needs analysis and zoning interpretation assumes that residentially zoned parcels are suitable for human inhabitation. The count does not include parcels zoned for rural purposes.

Rothesay

Zoning Classifications

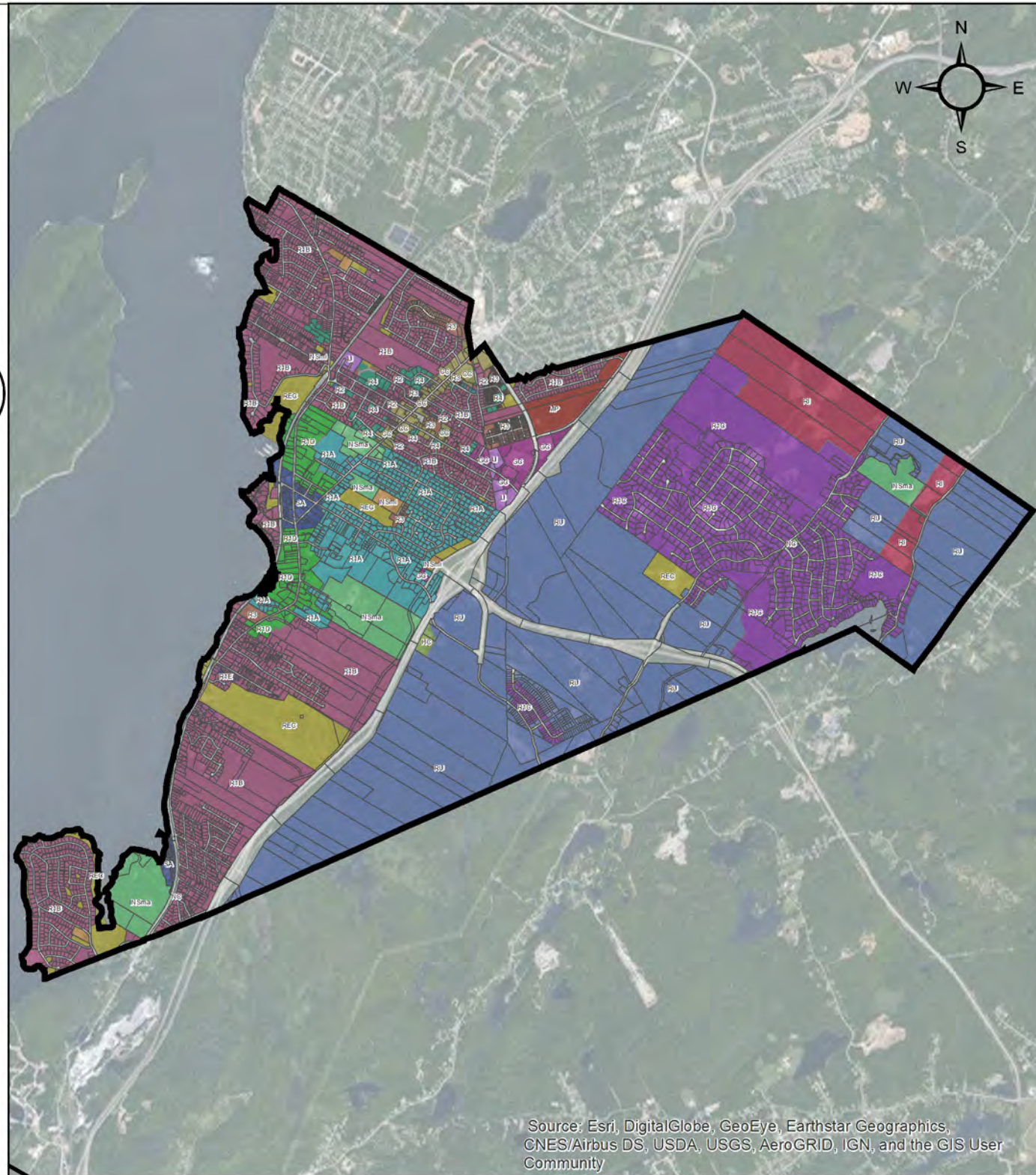
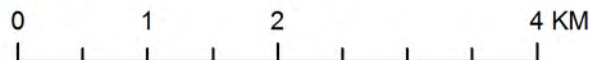


- Town Boundary
- Parcel Fabric

Zoning

Zone Classification

- CC, Central Commercial
- GC, General Commercial
- HC, Highway Commercial
- INSma, Institutional Major
- INSmi, Institutional Minor
- LI, Light Industrial
- MP, Millennium Park
- NC, Neighbourhood Commercial
- R1A, Single Family Residential - Large Serviced
- R1B, Single Family Residential - Standard
- R1C, Single Family Residential - Unserved
- R1D, Single Family Residential - Traditional
- R1E, Single Family Residential - Small
- R2, Two Family Residential
- R3, Attached Residential
- R4, Multi-Unit Residential
- REC, Recreation
- RI, Rural Industrial
- RU, Rural
- SA, Special Area



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Vacant Residential Land

Rothesay has 469 vacant residential parcels, or 1,271 acres of developable land. The average size of a vacant residential parcel is 2.4 acres, with the largest developable land being 202 acres. Analysis of Rothesay's vacant residential parcels found that 69 parcels exist within 100 metres of commercially zoned parcels (see Map 4), or approximately 116.9 acres of developable land. The average size of a vacant residential parcel within the 100 metre buffer is 1.69 acres, and the largest developable parcel is 40 acres.

Current literature suggests a 400 metre buffer is the ideal walking distance for access to services such as transit stops.^{29, 38, 92, 93} However, a 100 metre buffer was applied to vacant residential land to simulate a more desirable walking distance for an aging population rather than the recommended 400 metre buffer. This also encourages new development within a closer proximity to commercial services, ultimately encouraging higher standards for new construction on vacant land.^{161,162,163,164} In the case that a residential parcel straddles the 100 metre buffer line, the entire parcel was considered a vacant residential parcel within the 100 metre buffer. The millennium park zone was included in the vacant

residential land analysis as this zone supports residential uses and is thus able to be developed for residential purposes.

Map 4 *Map of vacant residential land*¹⁶⁵

p. 53 161 Daniels and Mulley, 2011
 162 Larsen, El-Geneidy, and Yamin, 2010
 163 Translink, 2012

164 Transport for Greater Manchester, 2013
165 Rothesay, 2016

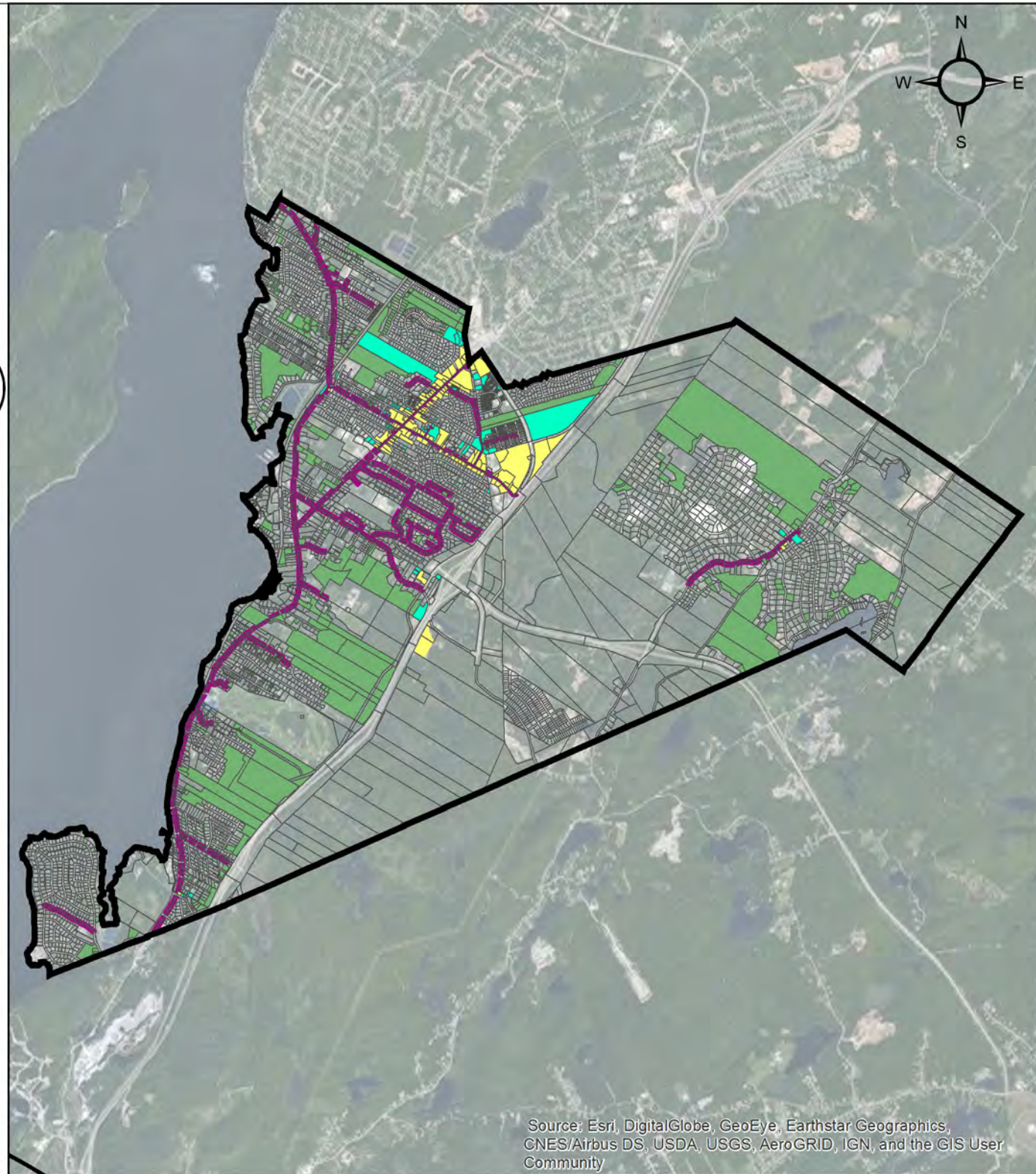
Rothsay

Vacant Residential Land 100m From Commercial Zoning



-  Town Boundary
-  Parcel Fabric
-  Vacant Residential Land 100m
-  Vacant Residential Land
-  Commercial Zoning
-  Sidewalks

0 1 2 4 KM



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics,
CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User
Community

Developed Residential Land – Dwelling Age

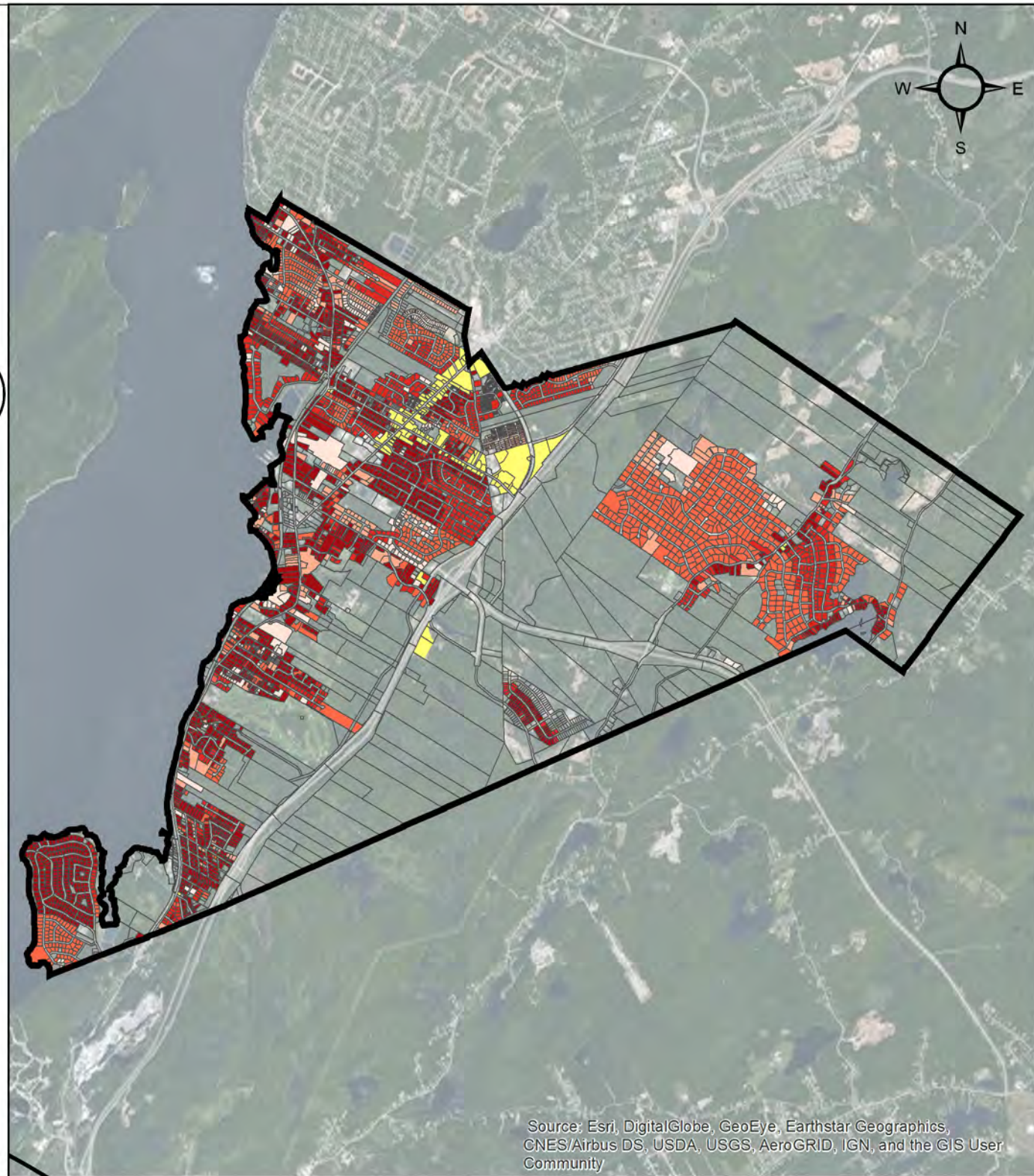
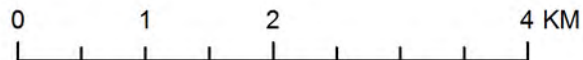
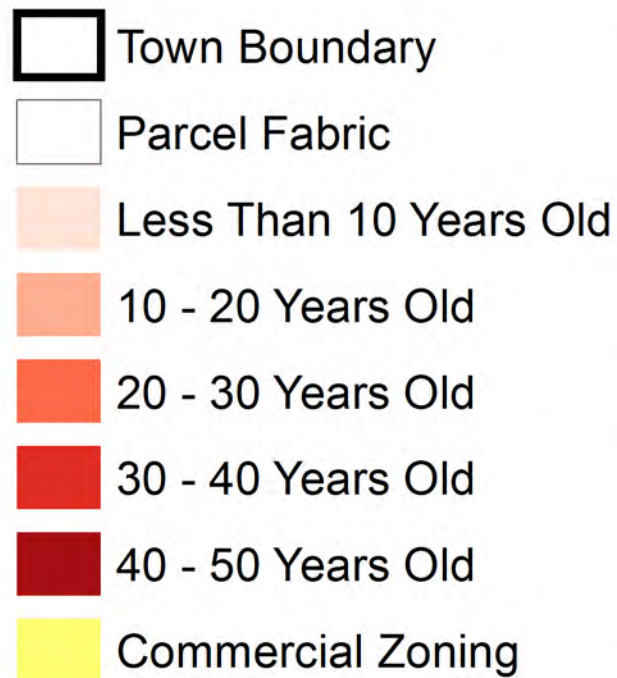
Rothesay has 4,246 developed residential parcels, equating to 5,003 total residential units (including multi-unit dwellings; see Table 8 and Map 5). A significant amount of Rothesay's existing housing stock is 40+ years old, but is in good condition according to CMHC's Housing Market Information Portal. Only 6.4% of Rothesay's existing housing stock requires major repairs.¹⁶⁶

Dwelling Age	Parcel Count	Residential Unit Count	% of Residential Unit Stock
Less than 10 years old	267	395	7.89%
10 – 20 years old	376	381	7.61%
20 – 30 years old	945	997	19.9%
30 – 40 years old	898	1,249	24.9%
40 – 50 years old	1,760	1,981	39.5%
Total	4,246	5,003	100%

Table 8 *Dwelling age, unit count, and percentage of unit stock.*

Rothsay

Residential Dwelling Age



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Developed Residential Land – Dwelling Count

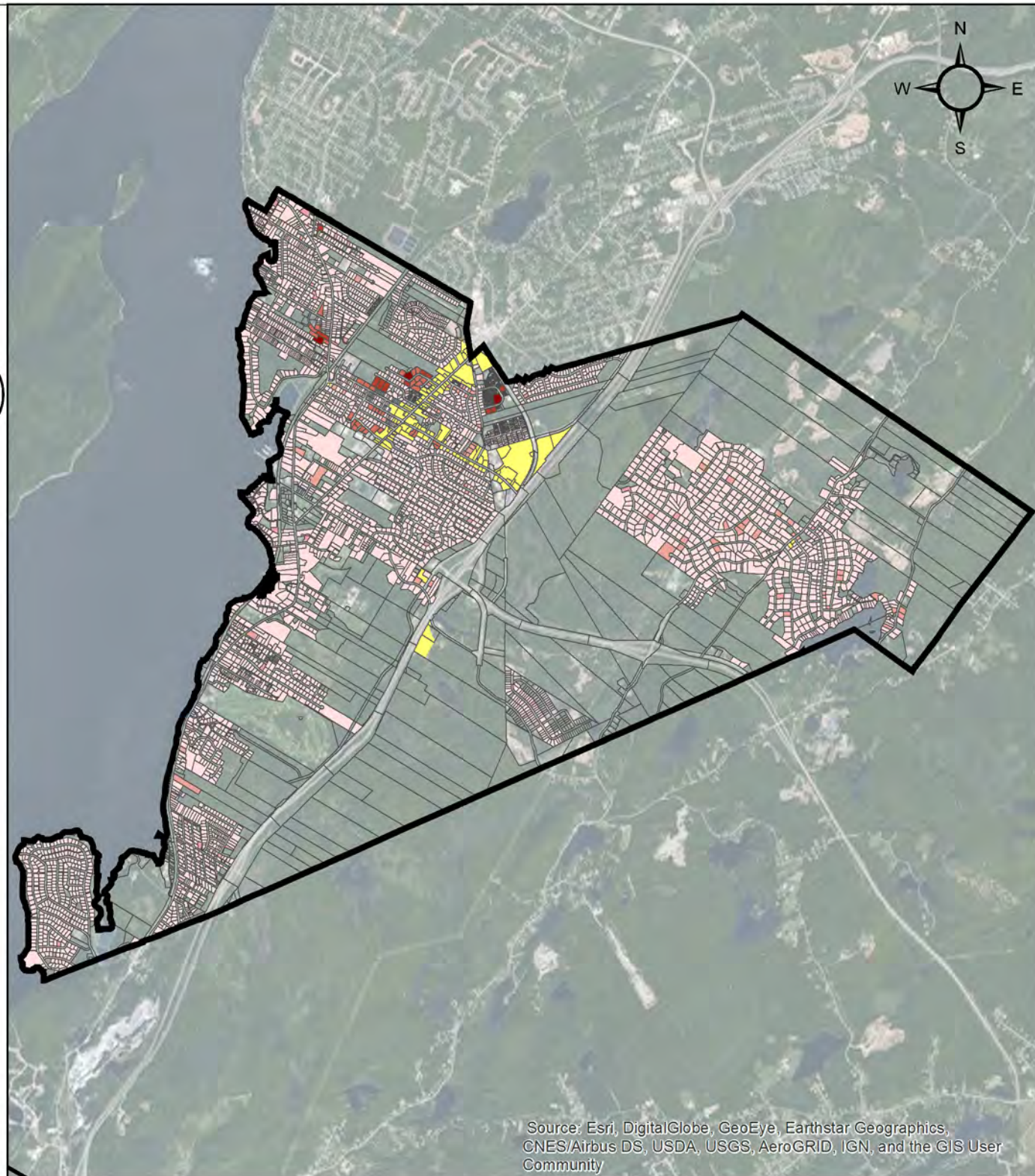
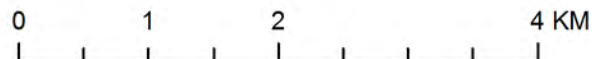
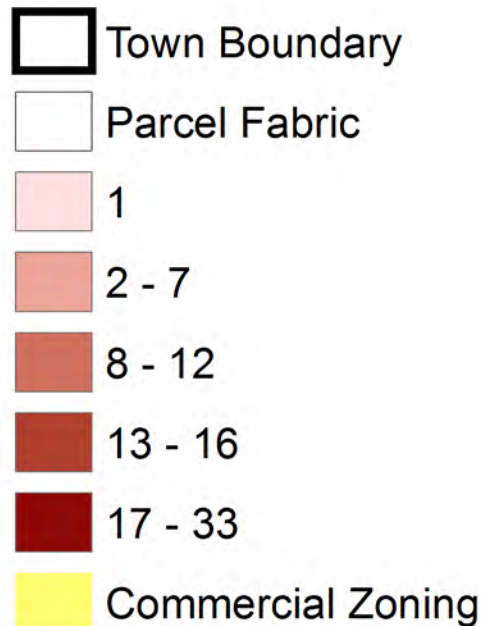
Although Rothesay's residential dwelling options range from single unit dwellings to a 33-unit apartment complex, the percentage of dwelling options suggests there is a disproportional amount of single-family housing options in the town (see Table 9 and Map 6).

Dwelling Unit Count	Parcel Count	Residential Unit Count	% of Residential Unit Stock
Single Unit	4,096	4,096	81.9%
2 - 7 Unit	101	230	4.60%
8 – 12 Units	34	404	8.08%
13 – 33 Units	15	273	5.46%
Total	4,246	5,003	100%

Table 9 *Dwelling counts, number of units, and percentage of total unit stock*

Rothsay

Number of Residential Units Per Lot



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Developed Residential Land – Proximity to Services

Rothestay has a strong concentration of commercially zoned parcels located in the northern area of the town. This commercial cluster offers residents a wide variety of services including access to food, medical services, and leisure shopping. A 400-metre buffer was applied to all commercial zones to simulate a comfortable walking distance to residential zones as recommended by current walkability literature.^{29, 38, 92, 93} There are 1,426 residential parcels situated within this buffer zone, equating to 1,986 units which range from single-detached to a 30-unit multi-residential complex. Approximately 1,342 units (67.5%) are single detached dwellings (Map 7).

Rothestay has a network of sidewalk infrastructure located throughout various areas of the town, providing residents pedestrian access to commercial services, adjacent residential dwellings, and various town amenities. The sidewalk network is not located adjacent to every residential dwelling. A 400-metre buffer was applied to all residential dwellings as suggested by existing walkability literature.^{169,170,171,172} Approximately 3,287 residential parcels are situated within this buffer zone, equating to 4,022 units that range from single detached developments to a 33-unit multi-residential complex. Approximately

3,155 (78%) are single detached dwellings (see Map 7). Contrary to this, approximately 959 residential parcels, or 981 residential units, are not located within 400 metres to a sidewalk.

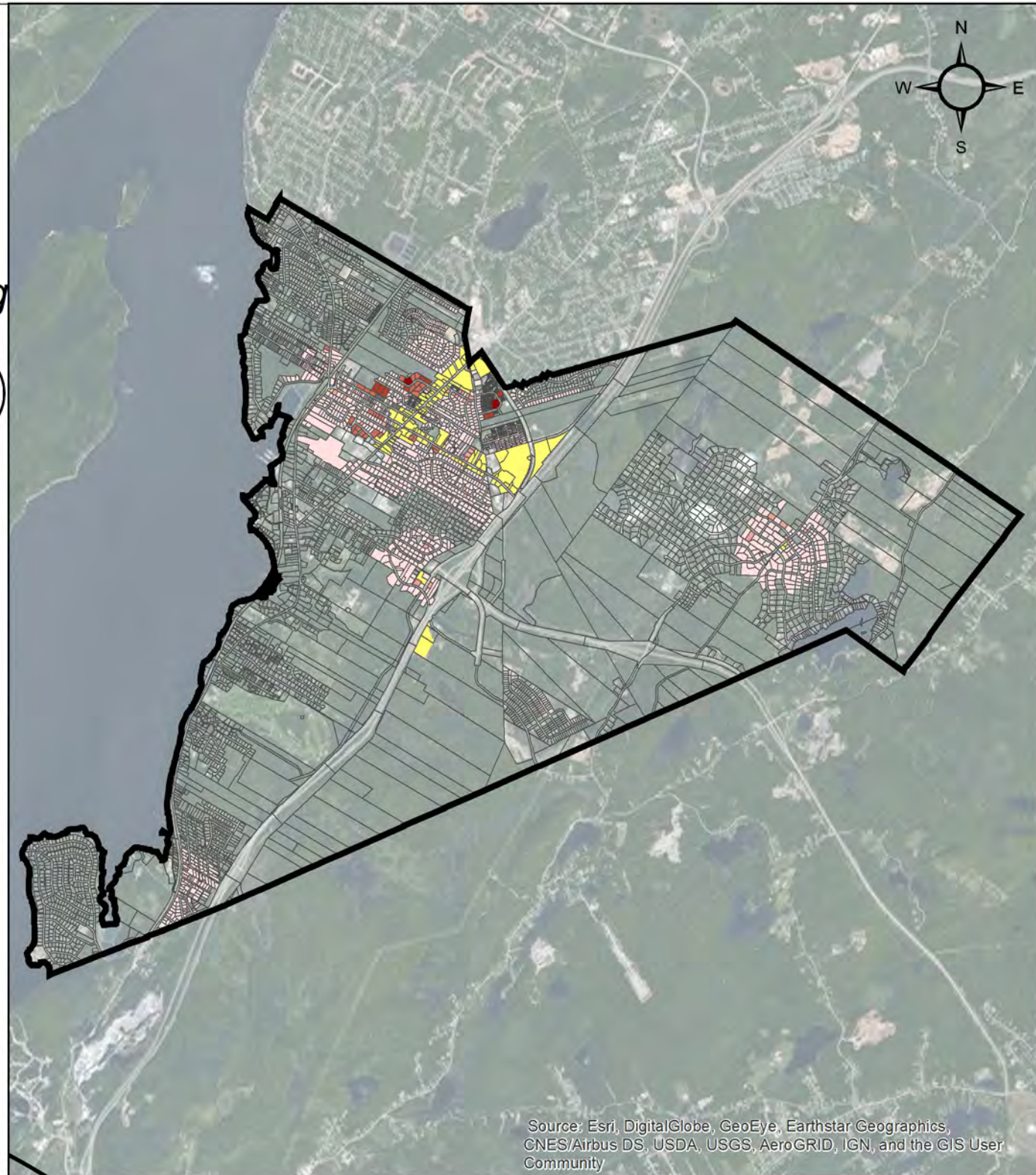
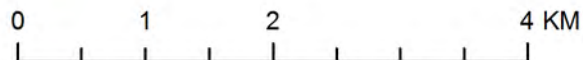
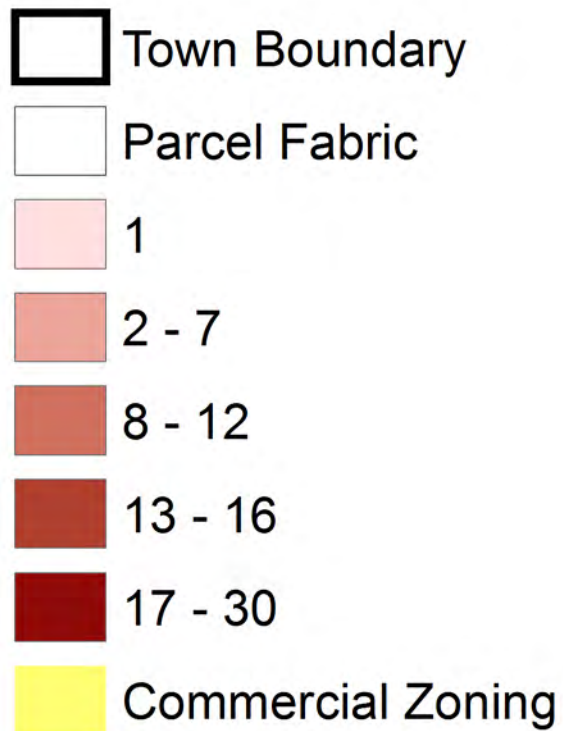
Map 7 Proximity of residential units to commercial zone¹⁷³

p. 59 169 Daniels and Mulley, 2011
170 Larsen, El-Geneidy, and Yamin, 2010
171 Translink, 2012

172 Transport for Greater Manchester, 2013
173 Rothestay, 2016

Rothsay

*Number of Units 400m
From Commercial Zoning*



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Developed Residential Land – Vacancy & Cost of Living

CMHC's rental apartment statistics provide valuable insight into affordability and efficiency of existing units in Rothesay. Vacancy rates (%), cost per unit (\$), and percentage of rental apartment stock were compared as these statistical measures provide insight into unit affordability and market over saturation (see Table 9).

Rothesay's residential assessment values provide an indication of the affordability of owner occupied residential units. The assessment values are grouped based on age of construction in decade intervals. The average assessment value for a residential property in Rothesay

is \$275,637 which was determined with a weighted average. The weighted average was based on the number of parcels in a dwelling age category. New construction (classified as less than 10 years old) is valued 46.5% higher than the town average, indicating the following:

1. Newer homes tend to be more expensive than older homes, potentially pricing seniors out of the market for new homes; and
2. A market exists for new construction which may be desirable for developers seeking to pursue new construction.

Apartment Style	Vacancy Rate	Cost per Month	% of Rental Apartment Stock
Bachelor Suite	***	***	0.16%
1 Bedroom Suite	***	\$557.00	9.26%
2 Bedroom Suite	7.2%	\$671.00	88.9%
3 Bedroom Suite +	10%	\$791.00	1.62%
Total	7.1% (average)	\$664.00 (average)	100%

Table 10 Dwelling counts, number of units, and percentage of total unit stock

Dwelling Age	Parcel Count	Average Assessment Value	% Above/Below Average
Less than 10 years old	267	\$404,020	+46.5%
10 – 20 years old	376	\$330,442	+19.8%
20 – 30 years old	945	\$281,461	+2.11%
30 – 40 years old	898	\$253,645	-7.97%
40 – 50 years old	1,760	\$252,546	+8.37%
Total	4,246	\$275,637 (average)	

Table 11 Dwelling counts, number of units, and percentage of total unit stock


Rothsay

*Number of Units 400m
From Sidewalk Infrastructure*



 Town Boundary

 Parcel Fabric

 Commercial Zoning

 1

 2 - 7

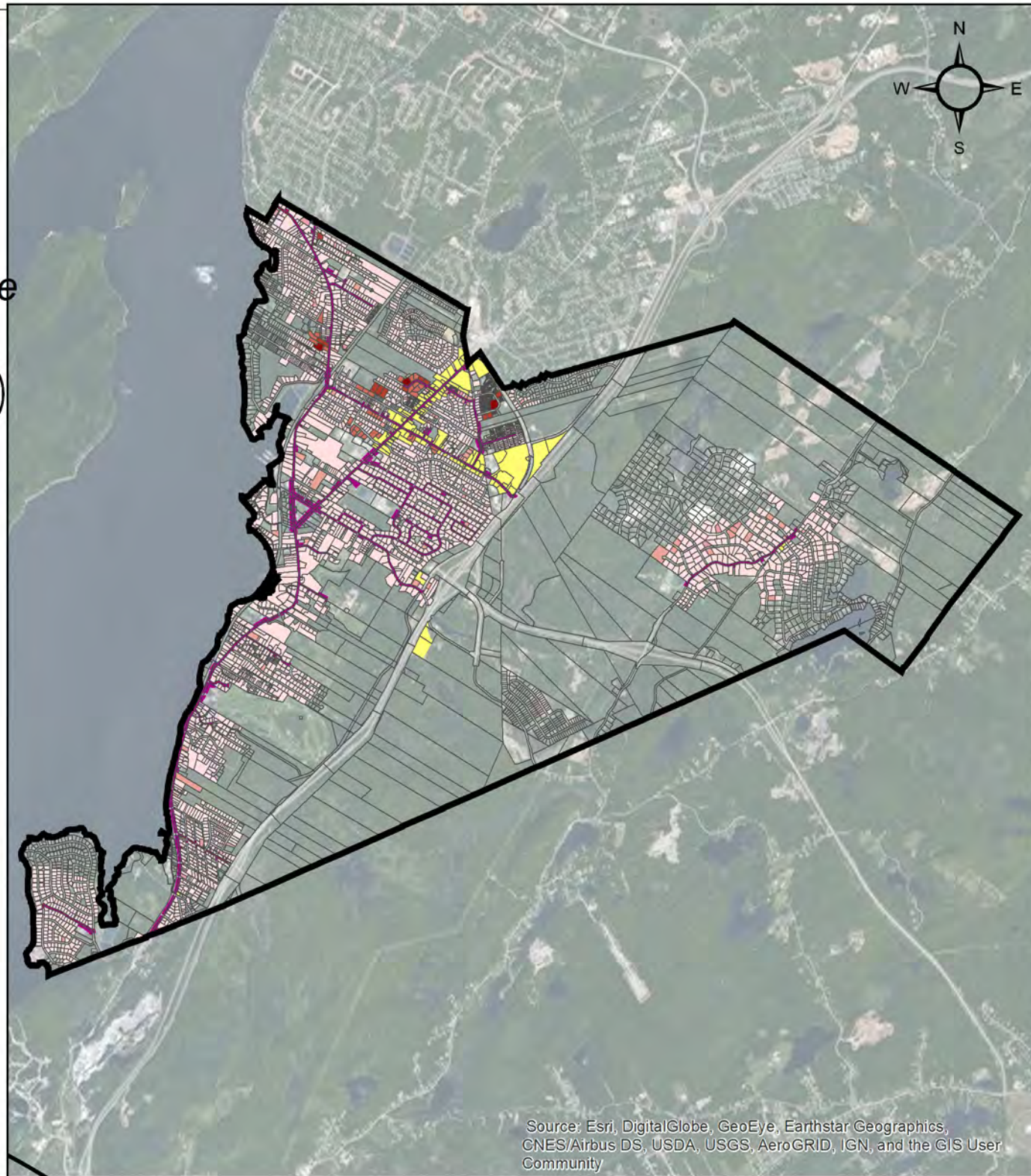
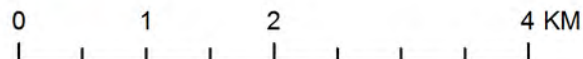
 8 - 12

 13 - 16

 17 - 33

 Sidewalks

0 1 2 4 KM



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

4.2 HOUSING ANALYSIS RECOMMENDATIONS

1. Encourage new development on vacant residential land close to amenities and where services exist.
2. Encourage development of affordable and accessible units through a incentive program, or similar initiative.
3. Promote adaptation of existing housing stock.
4. Diversify the town's housing stock.

A photograph of a calm body of water reflecting a dense line of trees with vibrant autumn foliage in shades of orange, yellow, and brown. The sky is a soft, hazy orange, suggesting a sunset or sunrise. The reflection in the water is clear and detailed.

5. Recommendations

Findings from the analysis suggest that Rothesay will experience a dramatic demographic shift with a large senior population, and has a significant amount of vacant residential land and a housing stock in good condition but with little variety (i.e. mainly single family housing). Throughout the report, we have identified potential opportunities to assist in alleviating the impact of the analysis findings. The following section summarizes the recommendations found throughout the report.

5.1 PLANNING CONTEXT

1. Develop and implement a system of data collection to measure the effectiveness of initiatives (e.g. number of new barrier free units, affordable units, increase in housing diversity).
2. Receive age-friendly recognition, by following the steps outlined in the *How to Develop your Age-Friendly Community*¹⁷⁵ document.
3. Develop an education and outreach campaign to inform residents of the benefits of diverse housing types for the community.
4. Update municipal policy to accommodate diverse, affordable, and accessible housing types.

5.2 COMMUNITY PROFILE

1. Encourage in-migration of different age cohorts to maintain a balanced age demographic.
2. Develop an affordable housing strategy as outlined in the Affordable Housing in Rothesay discussion paper (2013).¹⁷⁶
3. Monitor older housing stock for instances of major repairs.

5.3 HOUSING ANALYSIS

1. Encourage new development on vacant residential land close to amenities and where services exist.
2. Encourage development of affordable and accessible units through an incentive program or similar initiative.
3. Promote adaptation of existing housing stock.
4. Diversify the town's housing stock.

5.4 CONSIDERATIONS & OPPORTUNITIES FOR FUTURE STUDY

When comparing the findings from the community profile and the housing inventory with case studies and innovative housing options, we found several initiatives that Rothesay may consider as the municipality updates the Municipal Plan. Each of these initiatives will need to be assessed further based on local context.

1. Encourage new construction to prioritize the development of bachelor and one bedroom suites over two bedroom suites as our research identifies a disproportional amount of 2-3 bedroom units exists.
2. Develop a continuum of care model for vulnerable seniors.
3. Encourage Universal design principles in new construction and adaptations through town planning documents and conversations with developers.
4. Consider extending current policy to allow for secondary suites for individuals other than primary residents and relatives.
5. Develop an affordable housing strategy with the participation of Public-Private partnerships.
6. Promote the adaptation of existing housing stock within 400 metres of existing sidewalk infrastructure, and/or 400 metres of commercial zoning.

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7. Promote new construction on vacant residential land within 100 metres of existing commercial zoning.
 8. Consider testing out the theoretical models indicated in the case studies during the Municipal Plan process.

Square Peg Consulting suggests several other studies which Rothesay may consider in the future, based on the findings in this report. The population projections indicated that Rothesay will experience a dramatic demographic shift by 2026, with an increase in the senior population and significant decrease in youth and young professionals. A strategy to encourage the in-migration and retention of youth may be desirable to ensure a sustainable population growth. Rothesay is becoming more unaffordable, and it can be challenging to encourage the development of affordable housing units. Rothesay may consider developing incentive programs (e.g. density bonus) to encourage the development of housing types that are in demand but not currently being provided by the market. The incentives may include flexibility in zoning by-law regulations (e.g. bonus density) and fast-tracked approvals.¹⁷⁷

If pursued, Rothesay will need to consider:

- The number of affordable housing units;
- How long the units must stay affordable;
- The requirements and standards for the units (e.g. universal design/ age friendly principles);
- The measures and incentives that may be provided; and
- The price at which affordable housing units may be sold/rented.

It can be challenging to implement new housing types in a community where one housing type dominates. The new and recently approved condominium development on Hillcrest Drive and Hampton Road is a housing option that was not previously available in the community¹⁷⁸. The approval of the development, despite some opposition due to density concerns,¹⁷⁹ provides both Council and developers a ready-to-go pilot project to see how a denser neighbourhood model works in Rothesay. To encourage the community to accept other innovative housing options, pilot projects could be developed for them as well.

A network analysis considers physical barriers including walking/driving distances to commercial services

and sidewalk infrastructure, and can assist in identifying desirable areas for development. Rothesay may consider conducting a network analysis to identify areas of the Town that would be desirable for senior housing options or improvements in active transportation.

An important step to becoming an age-friendly community is to develop an inventory of a community’s strengths, assets, issues and opportunities. Our site visits assisted in identifying a non-exhaustive list of Rothesay’s strengths and opportunities for improvement. Rothesay may consider developing a more extensive list for the following areas: social cohesion (as it relates to programs, activities, and housing), transportation, and communication.

Social Cohesion

Our site visit identified a concern for seniors who may feel isolated from their community. There are several groups and organizations which seniors in Rothesay may consider joining to promote social cohesion and community belonging. The Royal Canadian Legion Branch 58 hosts various community events including brunches and shuffleboard games.¹⁸⁰ The Kings Way Life Care Alliance Adult Day Centre in Quispamsis offers several

activities including: art, gardening, cooking, music, entertainment, exercise programs, book clubs, walking club, and other outings. The Kennebecasis Valley Seniors group meets weekly to socialize, play bridge and card games.¹⁸¹ Many of the churches in the area provide opportunities to volunteer and participate in social groups such as the ACW quilting group.¹⁸² Rothesay also has no shortage of recreational and active transportation opportunities.^{183,184} The arena in Rothesay schedules senior skating and hockey times with no admission fee.¹⁸⁵ Residents can also join the local walking group, the KV Walkers, and participate in their 12-week summer walking program that explores trails in the area.¹⁸⁶

It is evident that there are significant opportunities for seniors to socialize and be connected with their community. However, the fact that there is significant concern over senior social isolation suggests that general awareness about the existing programs may need improvement. Further, all of the housing options identified in this report suggest opportunities for improved social interaction. The impact of senior housing options on improving social cohesion should not be overlooked.

180 Quispamsis, 2017a
181 Rothesay, 2012a
182 St. Paul’s Church, 2017

183 Rothesay, 2009
184 Rothesay, 2012a
185 Rothesay, 2017

186 Quispamsis, 2017b

Transportation

Seniors are less likely to drive as they age, and rely on vehicles as passengers.¹⁸⁷ This highlights the need for reliable and adequate public transportation. Rothesay works with the City of Saint John to provide public transportation to their residents. Bus route 52 goes through Rothesay six times a day, Monday to Friday.¹⁸⁸ For those with disabilities, Rothesay cosponsors the KV Wheelchair Shuttle Service, which provides transportation for wheelchair bound residents travelling from the Kennebecasis Valley to Saint John.¹⁸⁹ A transportation study can assist Rothesay in identifying any gaps or deterrents for Seniors to use public transportation.

Communication

The WHO and Canadian age-friendly housing checklists identify the necessity of having housing information about available housing types and financing options for maintenance readily available. Rothesay may consider developing a communication strategy to ensure seniors are aware of existing programs, activities, and important housing information. Although social media can be the most cost effective method to share information, it may not be the best way to reach seniors.

Printed documents could be made available at Town Hall, community centres, and social gathering places (e.g. Tim Hortons, churches, etc.) to ensure seniors have access to valuable information.

Method of communication is just one part of the equation, the wording of written material can affect the accessibility of information. New Brunswick seniors have a low literacy rate¹⁹⁰ and Rothesay has a higher percentage of seniors that did not complete high school compared to the community's general population, which has the potential to create challenges in terms of communicating with senior residents. Research has shown that, when communicating information, it may be useful to employ the SMOG (i.e. "Simple Measure of Gobbledygook") measure of readability:

1. Choose 3 strings of 10 sentences from different parts of the document.
2. Count the number of words that have more than three syllables (read out loud).
3. Using Table 12, check to see the required grade level of the read text.
4. A level of Grade 6–8 is usually considered appropriate for text aimed at seniors.¹⁹¹

5.5 MOVING FORWARD

Number of Words with 3+ syllables	Grade reading level
0-2	4
3-6	5
7-12	6
13-20	7
21-30	8
31-42	9
43-56	10
57-72	11
73-90	12
91+	Postsecondary

Table 12 *SMOG reading chart* ¹⁹²

In sum, Rothesay's total population has decreased while the number of units have increased (potentially due to parents becoming empty nesters and/or losing a spouse), the senior population is increasing exponentially, and there is a significant amount of vacant land available for development. Further, Rothesay has become more unaffordable than previous years despite high median incomes. As the community's demographics change, retrofitting existing housing stock can help to ensure a sustainable housing market. The significant amount of vacant land may make developing new construction desirable, but will need to be complemented with efforts to encourage the migration of younger generations. Alternatively, the vacant residential land may provide an opportunity to conduct pilot projects of the innovative housing options discussed in this report (i.e. secondary suites, shared housing, retirement communities, congregate housing). Square Peg Consulting believes that by pursuing the Age-friendly designation, and encouraging innovative housing types, the municipality will in turn encourage people of all ages to live in Rothesay now and in the future.



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7. Appendices



APPENDIX A: POPULATION PROJECTION

Appendix A details how the population of Wells was accounted for in the extrapolation projection. The following table shows what the historic population counts for the combined communities of East Riverside-Kinghurts, Fairvale, Renforth, and Rothesay. Wells' population is not counted, and so the population projection would be negatively impacted.

Year	Rothesay			New Brunswick		
	Total Population	Population Change	% Growth	Total Population	Population Change	% Growth
1976	7,155	-	-	677,250	-	-
1981	8,203	1,048	12.8%	696,403	19,153	2.8%
1986	8,748	545	6.2%	709,445	13,042	1.8%
1991	9,211	463	5.0%	723,900	14,455	2.0%
1996	9,228	17	0.2%	738,133	14,233	1.9%
2001	11,505	2,277	19.8%	729,498	-8,635	-1.2%
2006	11,637	132	1.1%	729,997	499	0.1%
2011	11,892	255	2.1%	751,171	21,174	2.8%
2016	11,659	-233	-2.0%	747,101	-4,070	-0.5%

Historical {

To adjust for Wells' population, the median growth rate was calculated (3.6%) and retroactively applied to population count in 1996, 1991, 1986, 1981 and 1976 respectively. This resulted in the following figure, which shows a more balanced population change through the years.

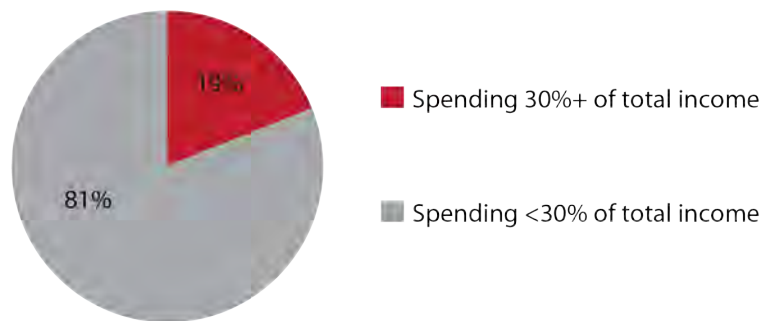
Year	Rothesay			New Brunswick		
	Total Population	Population Change	% Growth	Total Population	Population Change	% Growth
1976	9,696	-	-	677,250	-	-
1981	10,059	362	3.6%	696,403	19,153	2.8%
1986	10,434	376	3.6%	709,445	13,042	1.8%
1991	10,824	390	3.6%	723,900	14,455	2.0%
1996	11,228	404	3.6%	738,133	14,233	1.9%
2001	11,505	277	2.4%	729,498	-8,635	-1.2%
2006	11,637	132	1.1%	729,997	499	0.1%
2011	11,892	255	2.1%	751,171	21,174	2.8%
2016	11,659	-233	-2.0%	747,101	-4,070	-0.5%
2021	11,926	267	2.2%	745,823	-1,278	-0.2%
2026	11,989	63	0.5%	746,626	803	0.1%

Historical {
Projected {

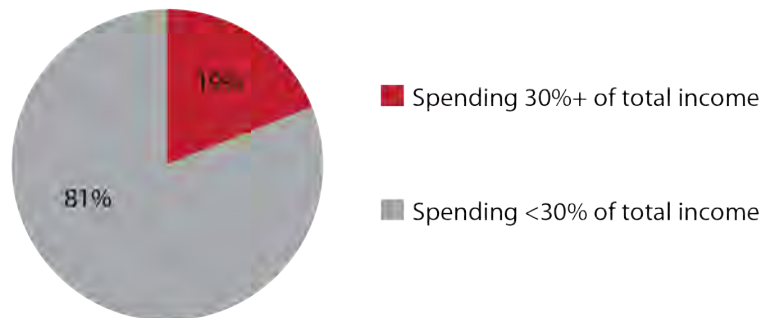
APPENDIX B: INCOME

(Statistics Canada, n.d. b,c,h,i)

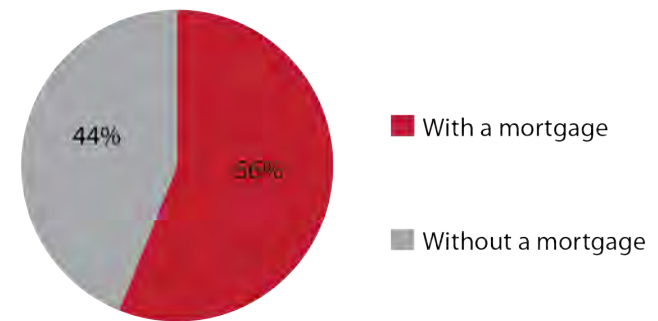
Percent of total income spent on shelter costs for owner and tenant households in Rothesay (2011)



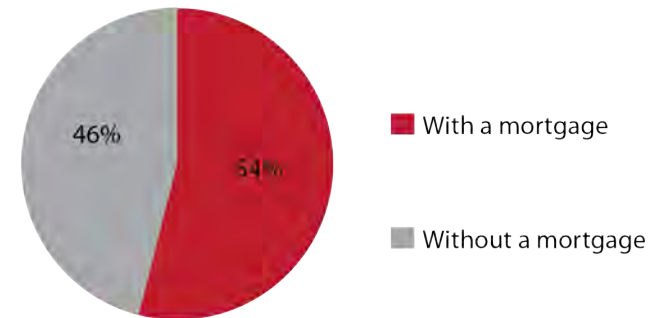
Percent of total income spent on shelter costs for owner and tenant households in New Brunswick (2011)



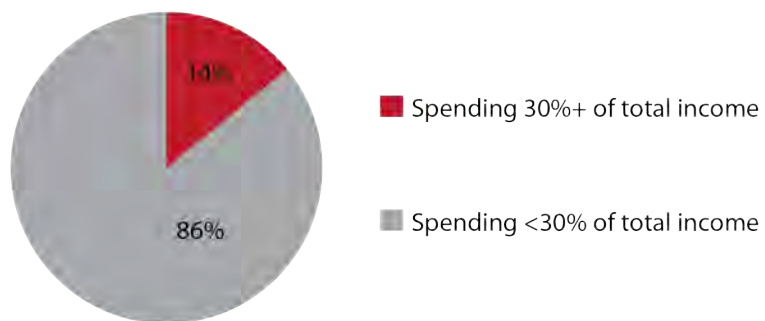
Percentage of owner households with a mortgage in Rothesay (2011)



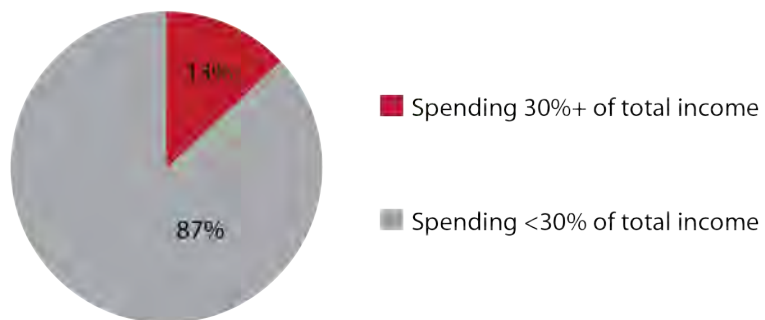
Percentage of owner households with a mortgage in New Brunswick (2011)



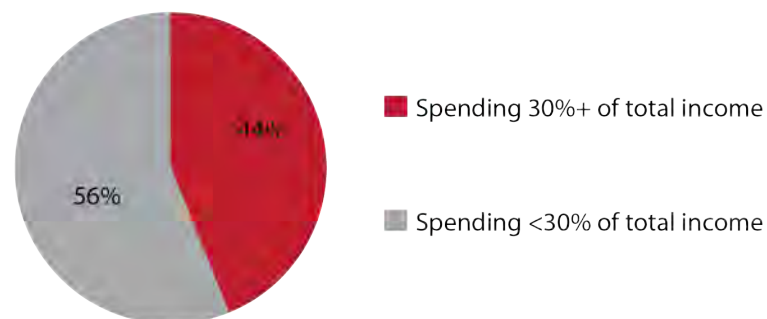
Percentage of owner households with mortgages spending 30%+ of total income on shelter costs in Rothesay (2011)



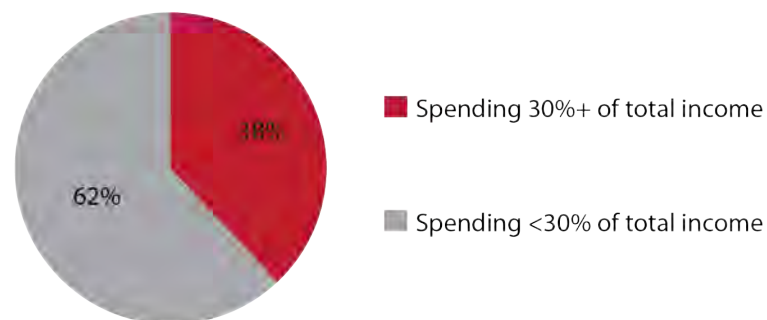
Percentage of owner households with mortgages spending 30%+ of total income on shelter costs in New Brunswick (2011)



Percentage of tenant households spending 30%+ of total income on shelter costs in Rothesay

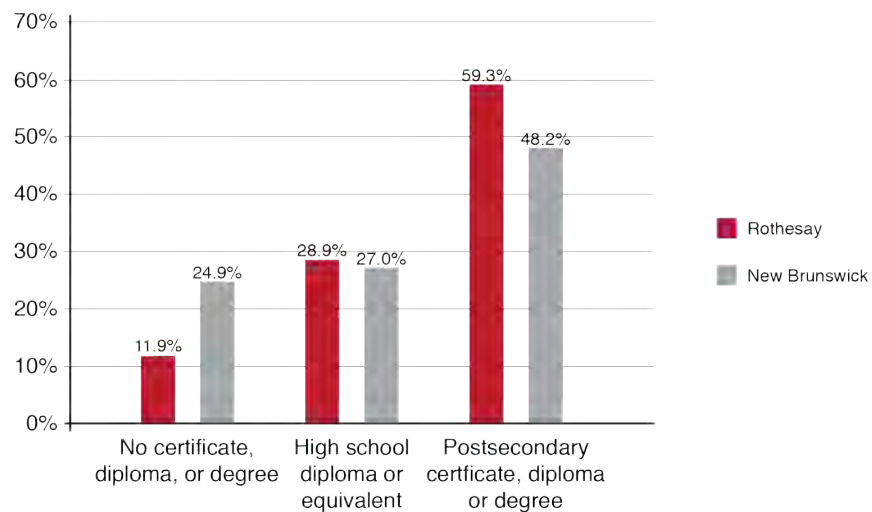


Percentage of tenant households spending 30%+ of total income on shelter costs in New Brunswick (2011)

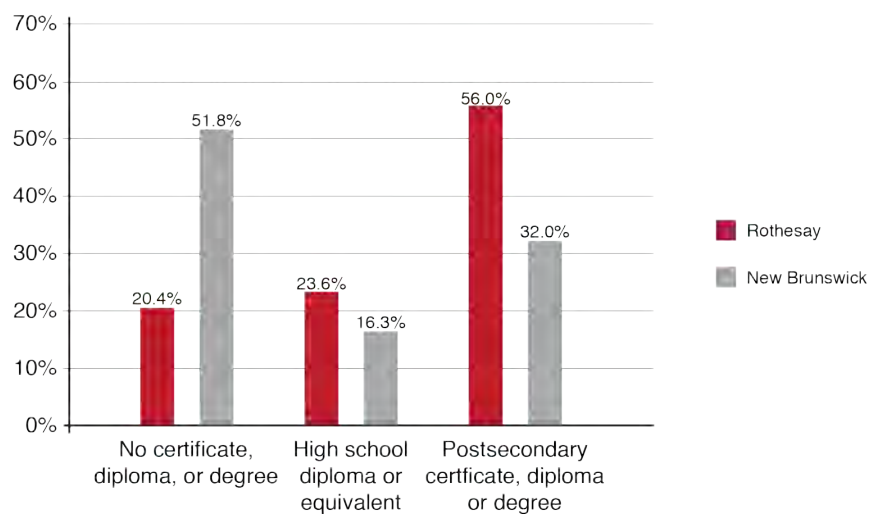


APPENDIX C: EDUCATION

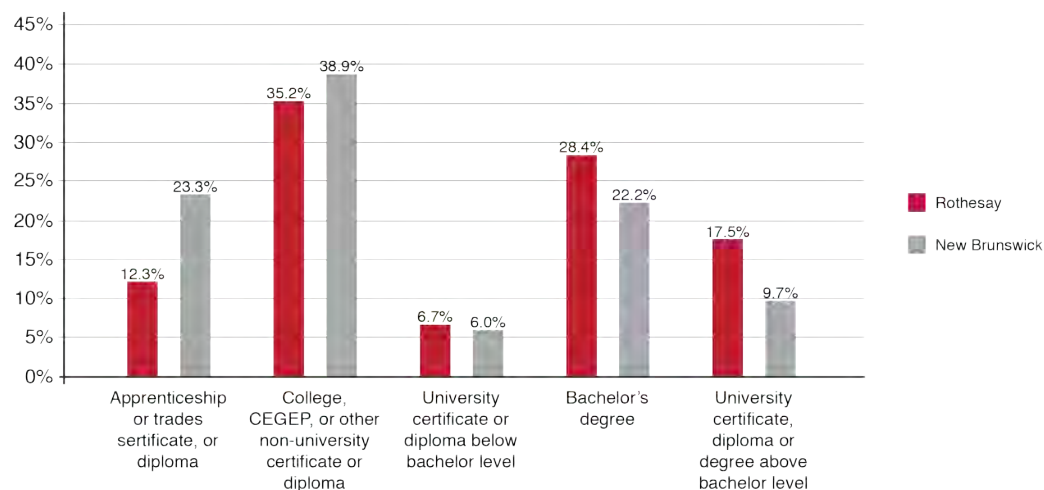
Comparing age 15+ population percentage of education levels between Rothesay and New Brunswick (2011)



Comparing age 65+ population percentage of education levels between Rothesay and New Brunswick (2011)



Comparing age 15+ population percentage of *postsecondary* education levels between Rothesay and New Brunswick (2011)



Comparing age 65+ population percentage of *postsecondary* education levels between Rothesay and New Brunswick (2011)

